Lost in Space?
Social Media-Innovation and Minority Language Use

Niamh Ní Bhroin

A thesis submitted to the University of Oslo in accordance with the requirements of the degree of Doctor of Philosophy in the Faculty of Humanities

December, 2014
Beatha teanga í a labhairt. Buanú teanga í a scriobh.
(Irish Proverb: A language survives through speech. A language is made permanent through writing.)

‘Čalli giehta ollá guhkás’
(Sámi Proverb: A writing hand reaches far.)
Acknowledgements

Go raibh mile maith agaibh! Ollu giitu!

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This project would not have been possible without research participants. Thank you for providing me with access to your interactions; for answering my repeated questions about how and why you chose to communicate in certain ways; for reading my draft research articles and providing me with feedback about them; and for meeting me for cups of coffee and interviews. I hope that you consider this thesis to be useful and relevant.

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With regard to this specific project, I am grateful to my family for their unwavering interest, questions and feedback, and for proofing earlier drafts of this thesis. I would also like to thank my uncle, ‘The Professor’, Colbert Kearney for encouraging me to undertake this project and for being a source of inspiration and advice. I am indebted to my husband Henrik Nömm for being my greatest critic and biggest fan, for looking after Molly to allow me to complete this project and for making sure there was food on the table at the end of the day! Tusen takk!

And finally to Molly, who is a relative newcomer to the process. This thesis tells parts of your story. Tá súil agam go mbaineann tú tairbhe éigin as!
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Thesis Summary

This thesis explores how users of minority languages engage in innovative practices in Social Media. They create new opportunities to communicate in their languages. These include designing web-based tools to support interaction, translating interfaces, and enhancing the visibility and relevance of these languages in new domains.

I propose Social Media-Innovation as a generative critical concept to explore innovations that aim to address social needs in media contexts. These innovations have three central attributes that also serve as an initial analytical framework. They must be considered relevant by their users to address identified social needs. They require the mobilisation of empowering capabilities to repurpose capacities for communication to address these needs. They also involve new constellations of agents. The interests of these agents influence how social innovations are implemented in media contexts.

Social Media provide individual users with the capacity to create and distribute mediated content. Prevailing discourses imply that this potential for participation is empowering and may improve social integration. This is particularly relevant in the context of groups that have previously been marginalised in traditional media, such as minority language users.

Exploring these practices as innovations enables a more critical interrogation of the discourses of empowerment that surround them. Global media corporations grant the capacity for participation to users. It is the result of processes of technological standardisation that serve commercial interests. Participation is facilitated to aggregate data about individual users and trade this for commercial revenue.

I find that the capacity to participate differs from the power users require to innovate and create new opportunities for communication. This power is grounded in an understanding of users’ communication needs. It requires the mobilisation of relevant capabilities, including linguistic and digital literacy skills, in order to address these needs. It also requires the alignment of new constellations of agents that have both social and commercial interests. These agents influence how new opportunities for communication are created.
**Gaeilge**

Ciorann an tráchtas seo mar a ghlaçann úsáideoirí mionteangacha páirt i gcleachtas nuálaiocha sna Meáin Sóisialta. Cruthaíonn siad deiseanna cumarsáide nua sna teangacha seo. Deartar gréas-uirílisi le tacú le hidirghníomh, aistritear comhéadain agus éascaitear feiceálacht agus ábharthacht mionteangacha i réimsí nua.

Molaim *Meán-nuálaiocht Shóisialta* mar choineachadh chríitíochtaí ghiúnúach le hanailís a dhéanann ar nuálaiocht sna meáin a dhíríonn ar riachtanais shóisialta a shásamh. Tá trí thréith lárach ag an gcineál nuálaiochta seo a fheidhmióin mar chéad-cheart anailís. Caithfidh go measadh a gcuid úsáideoirí go bhfuil slí ón dhhearnachá ar an scríbhneoir shóisialta a aisteoirí leis an réimse go dúchach. Éilíonn siad an leiadh inniúlachtaí cumais (empowering) le hacmhainní cumarsáide a aistriú leis na riachtanais seo a shásamh. Bronn *cnuasaigh de gníomhairí nua* páirtí leis an struchtúr oibre i bhfeidhm na nuálaiochta i gcomhthéacs na meán.

Cuireann na Meáin Sóisialta ar acmhainn usáideoirí aonaracha inneachar meán a chruthú agus a roinnt. Tugann dioscúrsaithe na linne seo le fios go bhfuil an acmhainn na riachtanais shóisialta a dhéanamh ar nuálaiocht sna meáin a dhíríonn ar riachtanais shóisialta a shásamh. Tá trí thréith lárnach ag an gcineál nuálaiochta seo a fheidhmióin mar chéad-cheart anailís. Caithfidh go measadh a gcuid úsáideoirí go bhfuil slí ón dhhearnachá ar an scríbhneoir shóisialta a aisteoirí leis an réimse go dúchach. Éilíonn siad an leiadh inniúlachtaí cumais (empowering) le hacmhainní cumarsáide a aistriú leis na riachtanais seo a shásamh. Bronn *cnuasaigh de gníomhairí nua* páirtí leis an struchtúr oibre i bhfeidhm na nuálaiochta i gcomhthéacs na meán.

Éascaíonn cíoradh na gcleachtas seo mar *nuálaiocht* scrúdú critiúil ar na dioscúrsaithe cumais (empowering) a bhaineann leo. Bronnann meán-chorpáirí domhanda acmhainn na riachtanais shóisialta a gcuid úsáideoirí. Is toradh é seo ar phróiséas chaighdeánaithe theicniúil leis an leasóidh a chur i bhfeidhm na riachtanais shóisialta a dhéanamh. Éascaitear an riachtanais shóisialta aonarach aonraí leis an tús a chur i bhfeidhm na nuálaiochta i gcomhthéacs na meán.

Mar thoradh ar an taighde léirim go bhfuil difríocht idir acmhainn na riachtanais shóisialta agus an chumhacht a éilíonn usáideoirí an nuálaiocht agus deiseanna cumarsáide nua a chruthú. Tá an chumhacht seo bunaithte ar thuiscint riachtanais cumarsáide usáideoirí. Éilíonn sé slí ón dhhearnachá abharthacha, ina measc inniúlachtai digiteacha agus teanga, leis na riachtanais seo a shásamh. Sa bhreis ar sin, éilíonn sé ailtíniú chnuasaigh de gníomhairí nua a bhfuil leasóidh a chur i bhfeidhm na riachtanais shóisialta a dhéanamh. Bronn *cnuasaigh de gníomhairí nua* páirtí leis an struchtúr oibre i bhfeidhm na nuálaiochta i gcomhthéacs na meán.

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Dávvisámegiella

Dát dutkkus iská mo unnitlogugiellageavaheaddjít servet innovašuvdnii sosíála medain. Sii hábmejit odda vejolašvuodaid gulahallat iežaset gielaiide. Dákkár vejolašvuodat fátmmastit hábmet web-reaiddud mat dorjot medialaš ovttasdoibmama, jorgalit lavttaid ja eanet čalmmustahttit ja dagahit gulahallama eanet guoskevažžan unnitlogugielan odda domeanain.


Sosiála mediat addet ovttaskas geavaheddjiide kapasiteahta hábmet ja gaskkustit mediałaš sisdoalu. Rávnjáldagat dígaštallamis geažidit ahte potensiála searvamii lea nannejeaddji (empowering) ja sáhttá buoridit sosíála integrašuvnna. Dát lea erenoamáš guoskevaš joavkkuid oktavuoðas geat ovdal leat leamaš marginaliserejuvon árbevirolaš mediain, ja dasa gullet maid unnitlogugiellageavaheaddjít.

Go suokkarda dáid proseassaid innovašuvdnan de dahká vejolažžan kritihkalaččat iskat diskurssaid fámus (empowerment) birra mat birastahttet daid. Leat globálá mediafitnodagat mat addet kapasiteahta searvat. Dát kapasiteahta lea boadus teknologalaš standardiseremis mii lea kommersiála beroštumiid várás. Searvan lea heivehuvvon čohkken dihte dieduid ovttaskas geavaheaddji birra ja vuovdit dan kommersiála dietnasa ovdwas.

Mu mielas kapasiteahta searvamii spiehkasta fámus man geavaheaddjit dårbbaašit o-ddahutkamii ja hábmet odda vejolašvuodaid gulahallamii. Dát fāpmu lea vuödduduvvon ádéjupmái geavaheaddji gulahallandárbbuide. Dusten dihte dáid
Norsk

Denne avhandlingen undersøker hvordan minoritetsspråkbrukere deltar i innovasjon i sosiale medier. De skaper nye muligheter for å kommunisere på sine språk. Slike muligheter inkluderer å skape web-baserte verktøy som støtter mediert samspill, oversette grensesnitt og øke synligheten til og relevansen av kommunikasjon på minoritetsspråk i nye domener.


Sosiale medier gir individuelle brukere kapasitet til å skape og formidle mediert innhold. Rådende diskurser antyder at dette potensialet for deltakelse er styrkende (empowering) og kan forbedre sosial integrasjon. Dette er spesielt relevant i forbindelse med grupper som tidligere har blitt marginalisert i tradisjonelle medier, inkludert minoritetsspråkbrukere.


Jeg finner at kapasiteten for deltakelsen skiller seg fra makten som brukere trenger for å innovere og skape nye muligheter for kommunikasjon. Denne makten er forankret i en forståelse av brukernes kommunikasjonsbehov. For å møte disse behovene kreves mobilisering av relevante ferdigheter, inkludert språklige og digitale leseferdigheter. Dette krever også samspill mellom nye konstellasjoner av agenter som har både sosiale
og kommersielle interesser. Disse agentene påvirker betingelsene for innovasjoner som skaper nye muligheter for kommunikasjon.
### Abbreviations

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<td>ANT</td>
<td>Actor-Network-Theory</td>
</tr>
<tr>
<td>BAI</td>
<td>Broadcasting Authority of Ireland</td>
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<tr>
<td>COE</td>
<td>Council of Europe</td>
</tr>
<tr>
<td>CSO</td>
<td>Central Statistics Office, Ireland</td>
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<tr>
<td>ECRML</td>
<td>European Charter for Regional or Minority Languages</td>
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<tr>
<td>IRA</td>
<td>Irish Republican Army</td>
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<tr>
<td>IRTC</td>
<td>Independent Radio and Television Commission (Ireland)</td>
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<td>NESH</td>
<td>Norwegian National Committee for Research Ethics in the Social Sciences and the Humanities</td>
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<tr>
<td>NIS</td>
<td>Northern Ireland Screen</td>
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<tr>
<td>NISRA</td>
<td>Northern Ireland Statistics and Research Agency</td>
</tr>
<tr>
<td>SCOT</td>
<td>Social Construction of Technology</td>
</tr>
<tr>
<td>SSB</td>
<td>Statistisk Sentralbyrå (Central Statistics Office), Norway</td>
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<tr>
<td>STS</td>
<td>Science and Technology Studies</td>
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Introduction

Prelude

Users of the Irish and Northern Sámi languages are creating new opportunities to communicate in their languages in Social Media. They are reaching out to engage people in conversations, devising web-based tools to encourage mediated interaction, translating interfaces, and creating groups in these platforms that support language use. Users of other minority and indigenous languages are implementing similar practices. This thesis explores how these processes are implemented. In order to introduce the topic, I begin by briefly summarising two recent events, and posing some introductory questions that they provoke:

Gmail ‘as Gaeilge’

In December 2014, Google announced the launch of its Gmail service in Irish. This was the result of a project of collaborative innovation between eight volunteers and a localisation team at Google. The volunteers donated their time and skills to translate 60,000 terms to Irish. Google provided the crowdsourcing infrastructure required to support the project, and tested it prior to launch (cf. Ó Caoláin, 2014; Ó Coimín, 2014). The conclusion of this project marks the achievement of a significant milestone in terms of creating new opportunities to use the Irish language in digital contexts. However, the way in which the project was implemented introduces the question of why volunteers

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1 'As Gaeilge' means 'in Irish'
would contribute to such a project when they did not stand to gain commercially from it.

On the other hand, Google announced that the project brought the total number of languages it ‘supported’ on the Gmail platform to seventy-two. Google’s Global Language Service Manager, Ana Paez, was quoted in *The Irish Times* as stating that the project was in line with Google’s mission ‘to organise the world’s information and make it *universally accessible* and *useful*’ (my emphasis). She also noted that her team aimed to work with ‘what the community thinks is *relevant* and *important*’ (my emphasis) (Ó Caoláí, 2014). The rhetoric of empowerment that surrounds the launch, both in Google’s own statements and related press coverage, makes no mention or enquiry about how Google might stand to gain commercially from this, or other localisation projects. Equally, the questions of why it has taken ten years to localise the Gmail service to Irish, and why other languages, such as Northern Sámi, are not yet ‘supported’ are not addressed (cf. Ó Caoláí, 2014; Ó Coimín, 2014).

*The ‘Davvisámegiella’ Keyboard*²

![The Davvisámegiella Keyboard](image)

**Figure 2: The Davvisámegiella Keyboard (Giellatekno, 2014)**

The second event also took place in December 2014. The Norwegian Sámi Parliament announced the release of a freely accessible keyboard for mobile communication devices. The Sámi language resource centre, ‘Divvun’, at the University of Tromsø had developed this keyboard to support all Sámi languages (Pulk and Guttorm, 2014). The free keyboard is available from Google’s Android Store for mobile devices that use this operating system. It is not as yet available from Apple’s App Store (Giellatekno, 2014).

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² Davvisámegiella means Northern Sámi Language
Interestingly, the launch of this free, and officially supported, keyboard followed the earlier launch of another keyboard that supported the Northern Sámi language in Apple’s App Store in November 2014. This earlier keyboard was available at the nominal charge of 21 NOK³ (Måsø, 2014).

Smartphones such as the Blackberry, Apple’s iPhone, and Google’s Android Phone and other devices that use its operating system, have been commonly available in Norway for at least five years.⁴ Official statistics reveal that 57% of the population had access to these devices in 2012, increasing to 73% in 2013 (SSB, 2014). In spite of this, prior to November 2014, it had not been possible to access all of the characters required to type in the Sámi languages on any of these devices. The Norwegian Minister for Local Government and Modernisation and the President of the Sámi Parliament promoted the launch of the free keyboard as a tool that would make everyday communication easier for Sámi people (Sametinget, 2014a). Tim Valio, who had developed the earlier Northern Sámi keyboard, stated that he had no expectations of making a commercial gain from the App, but had wanted to make it easier for people to communicate in this language (Måsø, 2014).

Both projects were therefore motivated by a concern to support communication in Sámi languages in digital contexts. Although it is too early to draw any analytical conclusions about their success, both projects would seem to have the potential to achieve this goal in different ways. However, at the same time, they reveal some overall lack of coordination between the efforts of individuals, research centres, administrative officials and global media corporations about the most appropriate way to achieve this common goal.

I have briefly introduced these examples because they provoke the key questions I aim to address in this thesis. They are surrounded by discourses of empowerment, highlighting how the innovations they introduce will ‘support’ language use. Both examples involve the participation of diverse constellations of actors that aim to address the social need of creating new opportunities to use these languages. All three of the

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³ This currently converts to about €2 Euro, or $3 USD.
⁴ It is maintained that the majority of the Sámi community live in Norway (cf. Rasmussen and Nolan, 2011).
projects mentioned clearly have the potential to do this. They also rely on the mobilisation of a range of skills and capabilities, including for example coordination, for success.

I argue that because these kinds of processes have potential social benefits, we need to critically assess them in order to understand how they are implemented and why they succeed or fail. In order to do this we need to look beyond the surface discourses of empowerment that surround them. I propose that if we analyse these kinds of projects as processes of innovation, we can understand more about how and why they are implemented, facilitated and coordinated.

My interest in conducting this research is shaped by my personal background and experiences. I support the maintenance of minority languages, and want to understand how mediated communication plays a role in this. My first language is Irish, which is a minority language.\(^5\) I grew up in a predominantly monolingual culture in Dublin (in the Republic of Ireland), in the 1980s and 1990s.\(^6\) At that time, as is still the case today, opportunities to use the language in everyday contexts were rare. The Irish language was largely unheard in the public domain, and not spoken in many private homes or at social events. Furthermore, although Irish was taught as a compulsory exam subject, it was used as a medium of education in very few schools.

The absence of the language I spoke at home from public arenas in the country where my family was from, led me to reflect on the ‘difference’ or ‘otherness’ that language choice could bring about. This was enhanced by the general absence of the language in media contexts. A number of developments, with particular regard to the introduction of an Irish-language TV Channel in 1996, and the conclusion of the peace process in Northern Ireland that resulted in the Belfast Agreement in 1997, contributed to changing attitudes about the relevance of the language and resulted in some increased public use. However, the language and its users continue to represent minor aspects of Irish society.

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\(^5\) For more information about the minority status of the Irish language see Chapter One.

\(^6\) Considering the extent to which the meaning and application of the concept of ‘culture’ is regarded as elusive, and regularly debated, for example in the field of anthropology, it is important to outline how I operationalize it. In this regard, I follow Lane (2012)’s explanation of the concept. Lane maintains that within the fields of linguistics and anthropology culture is understood as being: ‘a combination of stable and constructed, fluid and contextualised patterns of behaviour, both as something humans have and something we do’.
In 2011, census results revealed that only 2% of the population of the Republic of Ireland used the language on a daily basis outside of the education system (CSO, 2011).

Consequently, seeing Irish used by individual initiative in Social Media platforms aroused my curiosity. People were choosing to communicate openly in this language, just as in any other. They were joining in crowdsourcing projects to translate the Facebook interface. They were blogging about topics of interest to them. They were even posting tweets from space! The historical discourses relating to compulsory language use, how difficult Irish was to learn, the extent to which it was ‘a dead language’, and its political implications, seemed to be challenged by these new practices. I began to observe and reflect on my own language choices in Social Media spaces, and on those of people in my various communication networks. These initially broad and diffuse reflections ultimately crystallised in the form of three central research questions. These questions drive this research project. They are:

- How are individual users empowered to create new opportunities to use their languages in Social Media?
- How can analysing these users’ practices as innovations provide a more nuanced understanding of the discourses of empowerment that surround them? and,
- Which theoretical frameworks or concepts support the analysis of innovations that aim to address social needs in media contexts?

In the remainder of this Introduction, I provide an overview of the theoretical grounding for these research questions. This is followed by a summary of the main contributions of the thesis. Finally, I provide an explanatory note about how the thesis is presented.

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7 See the article entitled ‘Lost in Space? Reaching-out to use minority languages in Twitter’, in Section Two.
Introduction

This thesis explores how twenty-two minority language users created new opportunities to use their languages in Facebook, Twitter and Blogs. In doing so, these participants addressed an identified social need by innovating in media contexts. Importantly, I do not consider that every aspect of the communication undertaken by the participants was innovative. Instead, I focus on analysing what I consider to be pioneering efforts to generate new opportunities to communicate, such as those outlined in the prelude to this introduction.

The participants were recruited from two separate language cases that were selected for comparative purposes. Twelve used the Irish language and ten used the Northern Sámi language. A comparative case study design was implemented to enable an analysis of the practices I observed beyond a single-case situation, and to support theoretical development.

In the following discussion, I briefly introduce the concepts of ‘Minority Languages’ and ‘Social Media’ as they are applied in this study. In doing so, I introduce further theoretical concepts and perspectives that I apply to generate and address relevant research questions. In particular, developments within the emerging fields of Media Innovation, and Social Innovation Studies, highlight some key elements of these processes that deserve greater analytical focus.

Minority Languages

In the field of Minority Language Media Studies, researchers propose that the concept of a minority language is relational. It is used to describe languages that have been numerically and economically marginalised in specific states (Cormack, 2007). This marginalised status was brought about or accelerated by historical processes of colonisation or nationalism that constructed idealised cultural identities and reduced the domains in which targeted languages could be used. In some cases, these languages were excluded entirely from the public sphere, including media contexts (cf. Guyot, 2007).

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8 A contextual introduction to both language cases, and to the rationale for comparing them, is provided in Chapter One.
These processes were grounded in the assumption that a national culture and single language would facilitate political unity (cf. Andersen, 1983; Heller, 2006). They consequently limited the extent to which users of minority languages could access opportunities to communicate in their languages. In many cases, these users were also situated in isolated geographical communities. It is argued that this isolation may be one of the reasons that languages such as the Irish language initially survived (cf. Ó Riagáin, 2008). However, it also contributed to a reduction of domains in which these languages were considered relevant.

**Empowerment, Access and Reach**

Internationally, civil rights and social movements began to develop from the 1960s onwards and to question established structures of power. The sociologist Niamh Hourigan has explored how some of these movements campaigned for the establishment of communication rights for minority language users (Hourigan, 2004). These movements could therefore be understood as the first coordinated steps in the process of minority language user empowerment. They articulated, amongst other things, the needs of these users to have access to minority media services (Hourigan, 2004).

Efforts to ensure the use of minority languages in traditional media domains have been problematic. Market conditions, combined with the ownership and control structures in which these services operate, have historically dictated that any content that could not be demonstrated to be profitable, with reference to attracting advertising revenue through audience reach, was excluded (cf. Riggins, 1992; Picard, 2004).

As a consequence of these related obstacles of ‘access’ and ‘reach’, views diverged about the extent to which traditional media services could address the social needs associated with language maintenance and revitalisation projects (see also Cormack and Hourigan, 2007; Pietikäinen, 2008). The sociolinguist Joshua Fishman in particular called instead for bottom-up initiatives driven by language communities to ensure language use and inter-generational transmission (cf. Fishman 1991, 2001).

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9 See also Riggins (1992) for an earlier discussion about establishing Ethnic Minority Media beyond the European context.
Key Concepts
The concepts of empowerment and needs are central to this thesis. I operationalize them as they were developed by Foucault and further applied in communication theory. Foucault maintained that power was constituted in a network of social relationships (1980). Drawing on Foucault (1979), the critical theorist Nancy Fraser (1999) argued that needs relate to power, and are politically constructed instruments. She maintains that their articulation serves specific interests. These definitions highlight the requirement to analyse the contexts in which ‘empowerment’ and ‘needs’ are presented, and the interests they may serve. Theories of Social Innovation for example maintain that users should be empowered to address the needs that concern them (cf. Moulaert, MacCallum, Mehmood and Hamdouch, 2013).

Consequently, the needs of ‘access’ and ‘reach’ that were articulated by minority language social movements also require definition. These concepts have a relatively long tradition in the field of Media and Communication research. I operationalize them as they are grounded in Stuart Hall’s work on the politics of representation (cf. Hall, 1997). I argue that these concepts are particularly useful when analysing Media Innovations that aim to address social needs because they provide an analytical counterpart to the discourses of participation and empowerment that prevail in new media research. They also enable a theoretical connection to earlier technological developments in the field.

Social Media and Participation

Figure 3: Facebook 'as Gaeilge' (Facebook, 2014a)
I argue that exploring the design and use of Social Media technologies as innovations supports a critical interrogation of the extent to which they may facilitate or constrain user empowerment. This is because theories of innovations focus on understanding what is ‘new’ about particular technologies, and how this newness evolves through processes of diffusion in particular socio-economic systems (cf. Storsul and Krumsvik, 2013).

Examples of Social Media platforms include Facebook, Twitter and Blogs. Although these platforms are designed and used for different communication purposes, they do have some common and distinguishing features. In the field of Internet Research, these media are considered to encompass a range of technologies that facilitate the production and distribution of content across networked structures (cf. boyd and Ellison, 2007; Bruns, 2008; Jenkins, 2006). They have also been defined as being built on the foundations of ‘Web 2.0’, or the interactive web (Kaplan and Haenlein, 2010; O’Reilly, 2005). These definitions reinforce the importance of participation by users in the construction and dissemination of texts.

The media and communication scholar Henry Jenkins (2006), amongst others, has heralded the capabilities for individual participation in digital media as having the potential to enhance democracy and improve social integration (see also Bruns, 2008 and 2014). Social Media in particular are surrounded by discourses that emphasise how the technologies they present empower individuals to ‘create their own communities’, and ‘share content and experiences’ (cf. Facebook, 2014b), or ‘support’ language-localisation (cf. Ó Caoláin, 2014; Lenihan, 2011). These claims focus on what is presented as ‘new’ about these technologies, i.e. the extent to which they facilitate user-generated content and interaction (cf. Kaplan and Haenlein, 2010).

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10 I analyse the features of each of these platforms in more detail as I develop my theoretical argument in Chapter Two.

11 Social Media present networked contexts for interaction. The concept of a social network has developed principally from sociology and social network analysis (cf. Simmel, 1908). However it is currently operationalized in a range of disciplines, including studies of Social Innovation, Media Innovation, Science and Technology Studies and Minority Language Media Studies.
However, the discourses of empowerment that these theories produce are also criticised in media and communication studies for overlooking the extent to which technologies are designed and used in particular social and cultural contexts. These criticisms highlight the ‘informational capitalist’ structures these technologies reproduce. They argue that participation in the mediated contexts that these technologies present involves the exploitation of creative and voluntary labour on the part of individual actors (cf. Fuchs, 2010; van Dijck, 2012).

Researchers in the field of Minority Language Media Studies have also highlighted the participatory potential of Social Media. With reference to the Northern Sámi and Irish language cases, Sari Pietikäinen and Helen Kelly-Holmes (2011) pointed out that this potential introduced a new era or paradigm in which media could be used to support language maintenance. In what they call the ‘performance era’, they argue that individuals are the primary actors in language maintenance (cf. Kelly-Holmes, 2014).

Although they don’t analyse this new era with theories of innovation, Pietikäinen and Kelly-Holmes (2011) maintain that aspects of the previous eras are ‘embedded’ in each new era and influence how these media are used. They also highlight the introduction of new actors (i.e. not administrative or traditional media actors) to the hybrid language planning contexts they argue that these media present.

The main aim of this project is to explore how minority language users are empowered to create new opportunities to communicate in Social Media. The first overarching research question I propose articulates this aim. The second question focuses on how analysing these practices as processes of innovation can support a more nuanced understanding of the discourses of empowerment that surround them. Based on how the theoretical perspectives that I have introduced conceptualise ‘empowerment’, ‘innovation’, ‘access’ and ‘reach’, I propose the following theoretically focused sub-question:

- How do the communication needs of minority language users relate to the discourses of empowerment that surround Social Media?
Capacities for Communication and Empowering Capabilities

Rather than contributing to either extreme of polarised theoretical debates about participation and empowerment, I aim to contribute to the establishment of a practical common ground. This is based on the acknowledgement that Social Media technologies are becoming increasingly integrated with our daily lives (cf. Deuze, 2012). While various theoretical arguments are proposed and debated, time passes. As I have already pointed out, years after the initial introduction of technologies, the opportunities for communication they present are not equally accessible to all users. To address this situation, or support greater equality in opportunities for potential ‘empowerment’, we need to understand more about the social and cultural dynamics through which such opportunities are facilitated. Consequently, I follow the philosopher of technology Andrew Feenberg (2005) who maintains that because both sides of the debate have some truth, we need to look at new ways of understanding technological design and use in practice.

Feenberg (2005) argues that although technologies are socially constructed, it is important not to lose sight of the fact that they are designed to serve specific purposes and promote particular interests. At the same time, users can, and do, interact with technologies to repurpose them for their own goals. He calls this process ‘instrumentalization’. Feenberg’s theory of instrumentalization is important because it highlights how the meaning of technology is negotiated in use, and how it can be repurposed. I argue that users of minority languages instrumentalize technology when they create new opportunities to communicate in Social Media.

More recently, Feenberg (2012) has argued that the Internet is a technology in flux, for which innovative uses continue to be derived. He maintains that it resists the kind of interpretive closure, or common understanding of function, that earlier innovations such as the refrigerator achieved (see also Pinch and Bijker, 2012). Bearing in mind that power continues to be influenced within this context of flux, Feenberg’s work provides a useful way to interrogate the design, negotiation and use of technologies to communicate in minority languages in Social Media.
Within the field of Media Innovation Studies, it is pointed out that many innovations are incremental or sustaining in nature. This concept of ‘incremental innovation’ highlights the gradual processes through which the meaning of technologies are designed and negotiated, and provides a balance to the more radical discourses of ‘empowerment’.

This project’s third overarching research question focuses on which theoretical frameworks or concepts support the analysis of innovations that aim to address social needs in media contexts. Consequently, I propose the following theoretically focused sub-question to assess the appropriateness of Feenberg’s (2005) theory of instrumentalization in this regard:

• How do minority language users instrumentize technologies in order to address their communication needs in Social Media?

**New Constellations of Agents in Hybrid Communication Contexts**

Theories of Social Innovation maintain that new constellations of agents are required to address social needs (cf. Moulaert et al., 2013; Mulgan, Tucker, Ali and Sanders, 2007). Furthermore, within the field of Minority Language Media Studies, Pietikäinen and Kelly-Holmes (2011) have indicated that in what they identify as the ‘performance era’, non-traditional actors, in particular individuals, become involved in activities of language maintenance. These agents influence how minority language users can create new opportunities to communicate. I briefly discuss some key considerations in this regard here:

Research within the field of Media Innovations Studies has drawn on perspectives from Science and Technology Studies (‘STS’), and Actor-Network-Theory (‘ANT’) in particular, to map out the roles of various social actors and technological actants in processes of innovation (cf. Westlund and Lewis, 2014). A technological actant is an agent that is ultimately socially constructed but that can facilitate or constrain specific actions (cf. Latour, 2005). The concept is drawn from literary studies. Westlund and Lewis (2014) provide examples of databases, algorithms, and content management systems that may influence specific actions in Media Innovations. These concepts are useful to explore how these agents influence processes of media innovations. In particular, they draw attention to the range of agents, beyond ‘individuals’ that are party to mediated interactions in Social Media.
**Hybrid Access**

A range of technological devices and infrastructural capabilities are required to access Social Media. These platforms are accessed and used via desktop computers and mobile devices. Furthermore, communication in these media involves interaction with a broader range of content that is available on the Internet. This includes content from traditional media services such as newspaper articles, radio, or TV programmes. As indicated in the prelude to this introduction, if users cannot access keyboards that support communication in their languages on these devices, or broader media content, their access to opportunities for participation in these languages is constrained.

**Programmed Sociality**

Although Social Media services are ‘free’ to use, the platforms I analyse are provided by commercial businesses. They generate revenue by aggregating data about the interactions of their users and selling this to advertisers (cf. Facebook, 2014b; Twitter, 2014). They do this by mobilising a range of databases, protocols, content management systems and algorithms, creating what Bücher (2012) has conceptualised as ‘programmed sociality’.

Bücher’s concept refers to how individually generated content is harnessed and quantitatively aggregated for commercial purposes in these platforms. She analyses how specific types of participation and interaction are encouraged and manipulated.12 Consequently, it has been argued that these technologies should not be understood as presenting ready-made solutions to particular social challenges (cf. Graham, 2013). Instead they present a series of codes, algorithms and protocols that primarily constrain rather than empower the potential interactions of their users (cf. Bücher, 2012; Graham, 2013). An important consideration that relates to ‘programmed sociality’ is the extent to which the quantitative aggregation of data in Social Media might influence the conditions by which minority language users can ‘reach’ content in their languages.

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12 See also Kramer, Guillory and Hancock (2014) for a discussion about the emotional manipulation of Facebook users’ news feeds.
Networked Privacy

Although research to date has highlighted some of the broader principles that influence communication in Social Media, less is known about their day-to-day operations. By way of example, when interacting in Social Media, a user is not fully aware of which other users are accessing or might access their content, or specifically how this content is being processed and aggregated at a given moment in time (cf. Marwick and boyd, 2011, 2014).

The lack of clarity about how mediated interactions are accessed also raises questions about the privacy and commodification of the individual data that is exchanged. Marwick and boyd (2011, 2014) have described the kind of privacy that consequently emerges as ‘networked privacy’. I use this concept to explore the relationship between access, reach and empowerment. I also employ it methodologically to support the privacy of research participants and individuals that are implicated during the process of Social Media research.

The new constellations of agents that are present in the hybrid communication contexts that Social Media present influence how users are empowered to create new opportunities to communicate in minority languages in Social Media. Consequently, in order to address this project’s overarching research questions, I have formulated the following theoretically focused sub-question:

- How is the ‘power to act’, to create new opportunities for minority language use, facilitated or constrained by the networks of agents present in Social Media?

To summarise, I argue that analysing the interactions of minority language users in Social Media as innovations supports a greater understanding of how they facilitate and constrain user empowerment. I argue that focusing on the processes of innovation by which capacities for ‘performance’ or ‘participation’ are brought about, enable a more critical interrogation of the role of the individual as the primary actor in this new era that Pietikäinen and Kelly-Holmes (2011) identify.
Research Questions

To summarise, this thesis focuses on the following overarching research questions:

- How are individual users empowered to create new opportunities to use their languages in Social Media?
- How can analysing these users’ practices as innovations provide a more nuanced understanding of the discourses of empowerment that surround them? and,
- Which theoretical frameworks or concepts support the analysis of innovations that aim to address social needs in media contexts?

In addition to these three sub-questions:

- How do the communication needs of minority language users relate to the discourses of empowerment that surround Social Media?
- How do minority language users *instrumentalize* technologies in order to address their communication needs in Social Media?
- How is the ‘power to act’, to create new opportunities for minority language use, facilitated or constrained by the networks of agents present in Social Media?

Having provided an overview of the nature and scope of this research project, along with a conceptual map and an outline of the central issues that are analysed, the final section of this introduction summarises the main contributions of the thesis, and provides an outline of its structure.

Main Contributions

This thesis makes contributions to research at the theoretical, empirical and methodological levels. These contributions are related. The practical analysis of the object of study has generated findings that support theoretical and methodological development. This includes the establishment of an appropriate theoretical framework to analyse innovations that aim to address social needs in media contexts.

I argue, with reference to my analysis, why such theoretical development is warranted. This theoretical contribution is particularly relevant to the emerging field of Media Innovations studies. It is also relevant to other studies that aim to understand how media are used to solve social problems. Given the small sample size, and the micro-level focus of the research, further research is required to test the relevance and applicability of these findings in other cases of innovations that aim to address social
needs in media contexts.

This thesis also makes methodological contributions by reflecting on the ethical parameters that surround the implementation of research in Social Media. I argue that because the mediated interactions this research involves implicates unknown users, strategies need to be implemented that ensure that research does not unduly encroach on the privacy of these individuals. This requires careful consideration. I approached this challenge by developing the categories of ‘core’ and ‘ancillary’ participants and examining how ‘core participants’ implementation of strategies to manage their privacy influenced how I, as a researcher, was exposed to data about ancillary participants. This in turn allowed me to implement strategies to ensure that I did not unduly encroach on the privacy of these ancillary participants.

**Thesis Structure**

This thesis is divided into two sections. The first section consists of a covering paper. The covering paper provides an overview of the research project and its theoretical and methodological framework. It also outlines and discusses the implications of its main scientific contributions. The second section consists of a series of articles that have been prepared during the course of the project. These articles focus on particular issues of relevance to the project’s overarching research questions. Following this introductory section, Part One is divided into four chapters. The first chapter provides a contextual introduction to the Irish and Northern Sámi language cases. The second chapter provides an overview of the theoretical and conceptual framework. The third chapter consists of a discussion of the methodology applied. The fourth chapter discusses the main contributions and implications of the project.
Chapter One: Context

The Irish and Northern Sámi languages are minority languages. In this chapter, I summarise the context in which opportunities to use these languages are limited. I focus on how the size and structure of both language communities influence how users can reach others and engage in communication. I also discuss how users of these languages can access opportunities for mediated communication. Finally, I highlight areas of comparison between both cases that inform my analysis.

The Irish Language

(a) Size, Structure and Reach

Irish was the primary language of communication in Ireland until the 18th Century. Processes of cultural colonisation, large-scale economic emigration and famine impacted the extent to which the language was used and considered relevant as a public mode of communication (cf. Nic Pháidín and Ó Cearnaigh, 2008). By 1926, only 18% of the population of the Irish Free State were ‘Irish Language Speakers’ (CSO, 2014).13

The role of Irish as a contemporary mode of communication is tied to the political relationship of Ireland with Great Britain. Efforts to revive Irish commenced at the end of the 18th Century. These related to a movement that aimed to bring about national self-determination and independence from British rule. The language was adopted as a central element of a unique Irish identity. It was considered to symbolise the distinctiveness of Irish people, and their consequent right to independent government (Ó Tuathaigh, 2008; Watson, 2008). Efforts to revive the language were complicated by the Anglo-Irish Treaty of 1921. This divided the island into two administrative areas: the Irish Free State, and Northern Ireland (National Archives, 2014).

The Irish Free State

The Irish Free State adopted Irish as ‘the national language’. It explicitly aimed to revive it as its first language. It undertook to preserve the spoken language in Gaeltacht

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13 For a discussion about the meaning of Census categorisation and figures, see Romaine (2008) and Punch (2008).
areas. It also introduced Irish-medium education to increase the size of the language community.

In 1926, it was recommended that any area where more than 80% of the population were Irish speakers would be considered ‘an Irish speaking district’ (or a ‘Fior-Ghaeltacht’). Areas where between 25% and 79% of the population were Irish speakers would be considered ‘partly Irish speaking’ or a ‘Breac-Ghaeltacht’ (cf. Ó Giollagáin and Mac Donnacha, 2008). The implicit aim was to expand these areas as the process of language revival proceeded. Gaeltacht areas are predominantly rural, sparsely populated and geographically isolated. Their relative isolation, and historical small-farm economic structure, initially contributed to the survival of the language in localised social networks (Ó Riagáin, 2008).

Currently, declining numbers of speakers relative to the overall population in Gaeltacht regions, and decreasing opportunities to use the language, indicate that this policy of preservation has failed (see Ó Giollagáin, Mac Donnacha, Ní Chualán, Ní Shéaghadha and O’Brien, 2007). Changing economic conditions and immigration to these areas has increased multilingualism and the dominance of English as a lingua franca (cf. Moriarty, 2014). In 2014, the Minister of State for Gaeltacht Affairs and Natural Resources was criticised because he planned to introduce a fish-farming industry to the Inis Oírr Gaeltacht without conducting a language assessment study (Ó Gairbhí, 2014). This indicates the tension between the requirement for economic development and the preservation of opportunities to use the language in these areas.

Successive governments withdrew from what was initially an active approach to language planning (Ó hIfearnáin, 2001). Ó Riagáin (2008) has argued that official approaches passed from active revival to more passive language maintenance. In 2010, a twenty-year strategy for the Irish language was introduced. It committed to ensuring that as many citizens as possible were bilingual in both Irish and English. It also undertook to pay ‘close attention’ to the ‘place’ of the language in Gaeltacht regions in light of the fact that its relevance in these areas as a ‘household and community language’ was threatened (Rialtas na hÉireann, 2010, p.3).
The conflict between the ‘national’ and ‘minority’ status of Irish has been debated (Kelly-Holmes, 2011; Ó hIfearnáin, 2001; Ó Laoire, 2008). While some consider that current approaches to language planning treat the language as a minority language (Ó hIfearnáin, 2001), others have pointed out that it has the status of a ‘privileged minority language’ (Kelly-Homes, 2011, p. 44). The minority status relates to the size of the language community and the relative opportunities its speakers have to communicate. The contrasting privileges of national status are reflected in the position of Irish as an official language of the European Union since 2007. This means that the language is supported at an administrative level with particular regard to the translation of official documentation. However, the language is not supported by the European Charter for Regional or Minority Languages (‘ECRML’) because of its national status in the Republic of Ireland (COE, 2014). The Irish government is therefore not obliged to implement the specific measures of language protection outlined by this charter.

The Irish language community in the Republic of Ireland is regularly measured by a national census. In 2011, 1.77 million people, or ca. 40% of the population indicated that they could understand the language (CSO, 2011). This large bilingual population has been brought about by the availability of Irish-language education since 1922. This apparent numerical success reveals a challenge in terms of opportunities to use the language. Since the introduction of free secondary education in 1967, many Irish people have had access to fourteen years of education in Irish. In spite of this, 60% of the population claim that they cannot understand the language at all. Furthermore, only 94,000 people, or 2% of the population, use the language daily outside of the education system (Caulfield, 2013). Cronin (2005) pointed out that many of these daily speakers live outside of Gaeltacht areas. He categorised them as an ‘invisible tribe’, because of the limited extent to which they could be reached by official language policy, which focused on Gaeltacht regions.

In spite of wavering degrees of commitment to language planning, the Irish language has benefitted from its status as a national language in the Republic of Ireland. The Official Languages Act 2003 for example provides for the use of the language in official

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14 For a more detailed discussion about the interpretation of these census figures, see Romaine (2008) and Punch (2008). See also Moore et al. (2010) for a discussion about the ideological basis of ‘counting’ numbers of speakers.
contexts and the rights of its users in this regard (Office of the Attorney General, 2014). Although the effectiveness of this legislation has been challenged (cf. Walsh, 2012) its introduction, and that of similar measures such as the twenty-year Irish language strategy, does reflect the ‘privileged minority status’ of the Irish language in the Republic of Ireland.

Northern Ireland
The Anglo-Irish Treaty provided that Northern Ireland would remain under British rule (National Archives, 2014). The rights of Irish language speakers were at best ignored until the Belfast Agreement between the Republic of Ireland and Great Britain in 1997. These rights were subsequently strengthened by the ratification of the ECRML by the United Kingdom in 2001. The ECRML does not apply to the Irish language in the Republic of Ireland, because of the national status of the language in that country (COE, 2014).

The revival of the Irish language was linked to the politics of nationalism. Consequently, its speakers represented a threat to the union of Northern Ireland with the United Kingdom (cf. Ó Snodaigh, 1995). The majority of nationalists were Catholic.15 These represented a minority compared to the governing Protestant majority. By implementing policies based on religious segregation, successive administrations severely curtailed the civil rights of the Catholic community. This included a total lack of recognition of the Irish language (cf. Andrews, 1997).

A frustration with this lack of civil rights contributed to the foundation of the Irish Republican Army (‘IRA’). This terrorist organisation aimed to bring about the independence of Northern Ireland. It adopted the Irish language as a symbol of nationalism. It was notably used as a secret means of communication between political prisoners interned in the Long Kesh prison during the 1970s and 1980s. The strength of the symbolic influence of the use of the language in this context stigmatised members of the language community (cf. Malcolm, 1997). It also generated a colloquial reference to the revival of the language in the ‘jailtacht’ echoing official policies to revive the language in the Republic of Ireland (Mac Giolla Chriost, 2012).

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15 See Ó Snodaigh, 1995 for a discussion about Irish Language use amongst Protestants in Northern Ireland
In spite of this history, figures relating to the 2011 Census of Northern Ireland revealed that almost 11% of the total population of 1.7 million people had ‘some ability in Irish’. However, less than a quarter of 1% of the population stated that their main language was Irish (NISRA, 2011). This again reveals the extent to which opportunities to use the language in everyday contexts are limited.

The Belfast Agreement established a new power-sharing administrative structure in Northern Ireland. It also recognised ‘the importance of respect, understanding and tolerance in relation to linguistic diversity’ with particular regard to the Irish and Ulster Scots languages (Gov.uk, 2014). Queen Elizabeth II symbolically acknowledged this historical process in May 2011, during the first visit of a British monarch to the Republic of Ireland. This occurred fourteen years after the conclusion of the Belfast Agreement. The Queen opened her speech by addressing the Irish President and delegates in Irish. The instant impact of this symbolic gesture was evidenced in the televised emotional reaction of the Irish President (cf. You Tube, 2014). The longer-term political significance of the five words spoken by the Queen evokes the achievement of a stage of atonement for past failures to recognise the language and the rights of Irish people. It also symbolises a new official approach to recognise cultural and linguistic diversity in the United Kingdom.

The Diaspora

Figure Four below indicates the geolocation of Tweets posted in the Irish language. It demonstrates that Tweets are posted from locations around the globe. These include Canada, the USA, and Brazil. For the most part, these represent areas where Irish language users have emigrated. Members of the Irish-language diaspora have fewer opportunities to communicate in everyday situations than those in the Republic of Ireland and Northern Ireland (cf. McMonagle, 2012 on opportunities to use the Irish language in Canada).

(b) Access to Mediated Communication

Promoting the Irish language is one of the stated objectives of the Public Service Broadcaster RTÉ. In spite of this, the language has been marginalised on its services (cf. Watson, 2003). The first radio service provided by RTÉ, ‘2RN’, was founded in
1926 when the Irish Free State took an active role in language planning. The initial aspirations to support language maintenance through broadcasting were revised and scaled-back with the declining interest of the State in language policy (cf. Ó hIfearnáin, 2001; Pietikäinen and Kelly-Holmes, 2011).

Figure Four: Geolocation of Irish Language Tweets (Scannell, 2014a)

The sociologist Niamh Hourigan (2004) has analysed how social movements launched pirate radio and television stations to serve the needs of the Irish language community in the Republic of Ireland from the 1960s onwards. These movements were responses to the absence of political interest to support mediated communication in Irish. These pirate services were subsequently adapted and incorporated as the Public Service Broadcasters RTÉ Raidió na Gaeltachta (in 1972) and Teilifís na Gaeilge (which became TG4) in 1996 (see also Watson, 2003). The official mandate of these services was to broadcast content of interest to the Irish language community. While RTÉ Raidió na Gaeltachta focused on Gaeltacht areas, TG4 from inception targeted a national audience. The geographical remit of the radio service resulted in the further
establishment of *Raidió na Life*, a community radio service, to serve the Irish language community in Dublin (Cotter, 1999).

Furthermore, when the Irish government undertook to regulate the commercial and community radio and television sectors at the end of the 1980s, it introduced a requirement for the newly established Independent Radio and Television Commission (‘IRTC’) to ‘have regard to’ the extent to which applicants for broadcasting contracts proposed to include programming in Irish on their services. This provision has been carried forward to Section 66(2)(d) of the *Broadcasting Act 2009*. Where new services were to be licensed in areas that included Gaeltacht areas, the IRTC was required to have ‘particular regard to the continuance and advancement as a spoken language of the Irish language’. This provision is carried forward to Section 66(3) of the *Broadcasting Act 2009* (BAI, 2014a). In spite of these measures, the 72 additional services that have been licensed subject to this legislation have not significantly increased the amount of Irish-language programming broadcast (cf. Pietikäinen and Kelly-Holmes, 2011).

Providing broadcasting services is relatively expensive. The existence of *TG4*, *RTÉ Raidió na Gaeltachta* and *Raidió na Life* depends almost entirely on government subsidies. This is a direct consequence of the very small share of the local and national audience they reach. This impacts advertising interest and revenue. *TG4* has an audience share of 2% (TG4, 2014) while *RTÉ Raidió na Gaeltachta* and *Raidió na Life*’s small audience share is not published in regular radio listenership surveys (cf. BAI, 2014b).

*Access to Mediated Content in Northern Ireland*

Social movements also formed in Northern Ireland. The initial goals of these movements were to promote basic language rights for the Irish community. These included the establishment of Irish language schools and cultural centres (cf. Mac Póilín, 1997). Given the geographical proximity of Northern Ireland to the Republic of Ireland *RTÉ Raidió na Gaeltachta* and *TG4* could be accessed to a certain extent. As a consequence of the ECRML, Irish-language programming was included on the *BBC Northern Ireland* radio and television service (and on its website), and Irish language community radio stations (such as *Raidió Fáilte* in Belfast) were licensed (COE, 2014).
More recently The Irish Language Broadcast Fund in Northern Ireland and the Sound and Vision (II) Scheme in the Republic of Ireland have been established to provide funding support to independently produced programmes broadcast in the Irish language (see NIS, 2014 and BAI, 2014c).

The historical processes through which these services were created and officially institutionalised mobilised networks of activists in more or less formalised movements. While these movements achieved their goals to varying degrees, they also resulted in the creation of loosely connected networks of people who aimed to promote the Irish language (Hourigan, 2004). The mobilisation of these networks forms an important background into which Social Media technologies were introduced and appropriated.

Written Tradition
The Irish language has been used in writing since the sixth century (cf. Ó hUiginn, 2008). A diverse tradition of writing, including poetry, songs and plays developed but declined in the eighteenth century. To this point, written communication in Irish was largely the domain of an educated or religious elite (cf. Cairns and Richards, 1988). With the introduction of Irish language education from 1922 onwards, the written standard of the language became more broadly accessible. In spite of the declining relevance of the language as a mode of communication, contemporary Irish writers continue to produce a limited range of published works (cf. Meon Eile, 2014 on the challenges of contemporary publishing in the Irish language).

Social movements also formed to promote the use of Irish as a written language. One movement aimed to promote it as a form of postal address. Commencing in 1901, this movement sent various types of mail addressed in Irish through the post. This included a large volume of postcards, which Wilson (2014, p. 36) describes as ‘an Edwardian Twitter or Facebook’. By 1905, the volume of mail received by the British postal service in Ireland necessitated the employment of four postal clerks to translate these addresses to English. In spite of this, the British postal service maintained that it did not have an obligation to deliver mail addressed in Irish as it considered this an ‘inadequate’ form of address (Wilson, 2014, p. 36).
 Movements to revive the language also produced Irish language pamphlets and newspapers such as ‘An Claidheamh Soluis’ published by Conradh na Gaeilge in the 1890s (Conradh na Gaeilge, 2014). From the 1930s, the government of the Irish Free State officially supported a variety of newspapers on an adhoc basis (see Ni Chartúir, 2002). Funding was withdrawn in each case on the grounds that the relative businesses were not sustainable (cf. Foras na Gaeilge, 2014). The intermittent production and distribution of these newspapers did nothing to support the building of a consistent reading public.

Irish-language newspapers were further challenged by the dominance of well-resourced English language news media in their target areas. Uí Chollatáin, Úi Fhaoláin and Lysaght (2011) argued that media in Irish must be accessible to the relevant audience. They must also contain content that reflects the culture and interest of this audience. They proposed that the potential reach and networked-connectivity of Internet-based communication represented a unique opportunity for the distribution of a digital online news service that met these requirements. This recommendation has led to the recent launch of Tuairisc.ie, an Irish-language news service published in digital-only format.

Tuairisc.ie received 28,000 unique visits generating 250,000 page views in its first six weeks online, indicating at least an initial interest and demand for its services (Hickey, 2014). It remains to be seen how this online only newspaper, and its reading audience, develops.

In spite of the relative successes of these social movements in obtaining access to opportunities for mediated communication, Ethnic Minority Media theorists such as Riggins (1992) have pointed out that relying on government sources to support minority media ventures is a precarious strategy. This is because it depends on political good will. More recently, sociolinguists such as Crystal (2006), Jones (2013) and Pietikäinen and Kelly-Holmes (2011) have argued that the Internet represents a significant potential for language communities to produce mediated content through bottom-up initiatives. I therefore provide a brief contextual note about how the Irish language is used on the Internet.
The Irish Language Online

In addition to the specific online news service provided by Tuairisc.ie and similar services provided by MeOnEile.ie and Nuacht24.com, each of the established traditional media operators has an online presence (see also Caulfield, 2013). This ensures the regular production of Irish-language content by traditional media operators on the Internet. Individual language users can reach and access this content. 75% of the adult population in the Republic of Ireland (15+) own smartphones (UPC, 2014). 61% have Facebook accounts while 29% have Twitter accounts (Ipsos MRBI, 2014). Ofcom reports that 58% of Internet users in Northern Ireland accessed Social Media sites in the first quarter of 2014, while 55% owned smartphones (Ofcom, 2014). Combined with the relatively large size of the bilingual populations in these countries, this represents a significant potential audience for Irish language content online.

Sociolinguist John Caulfield has recently analysed how Irish language communities constructed networks in Internet contexts. He also explored how they adapted the use of their language to these contexts (Caulfield, 2013). Caulfield found that despite high levels of Internet use in the Republic of Ireland, and the high level of people that could understand Irish according to Census figures, only small clusters of between 150 and 300 users were active in his study of Facebook, Twitter and blogs. Approximately one-third of bloggers and Facebook users, and half of the Twitter users he studied interacted with three or more other members in Irish. The core group in each case was surrounded by a periphery of less active users. The majority of users were located outside of Gaeltacht areas. This corresponds with the fact that, as discussed above, most daily speakers of Irish live outside of Gaeltacht regions.

Following Ó Laoire (2005), Caulfield (2013) points out that the term ‘Gaeltacht’ originally referred to an Irish-speaking people in general. Official policies to promote the language bound the concept to specific geographic regions. Irish language users who communicate in the language online colloquially refer to the establishment of a ‘Gaeltacht 2.0’ (see also Lenihan, 2011). Caulfield argues that this new concept relates to the potential relevance of the language as a mode of communication in Internet contexts, and focuses the discussion on supporting the development of a ‘sustainable, viable body of Irish speakers’ (Caulfield, 2013, p. 30).
Given his research findings, Caulfield (2013) poses the question of how users of the Irish language in Internet contexts could and should be supported. It is to this question that my research project begins to outline the contours of an answer. Exploring how Irish language users engage in innovative practices to create new opportunities to communicate in Social Media provides some insight into why certain approaches work and others do not. Studying these as processes of innovation facilitates the development of an organised framework in which their media-specificity can be analysed and compared.

In the next section I introduce the Northern Sámi case. I then discuss how both cases provide points of contrast and comparison that drive my analysis.

**The Northern Sámi Language**

*(a) Size, Structure and Reach*

Northern Sámi is one of nine varieties of Sámi languages that are spoken in ‘Sápmi’. Sápmi is a region that encompasses Northern Norway, Sweden and Finland and includes a small corner of Northwest Russia (see Figure Five below). The Northern Sámi language is used in Norway, Sweden and Finland. The majority of this language community lives in Norway. As such, I focus the discussion here on the Norwegian context, and supplement where relevant with additional information that relates to Sweden or Finland.

Gathering statistics about Sámi speakers is complicated by the fact that the population is spread across four different countries and has no ‘home state’ (cf. Moore, Pietikäinen and Blommaert, 2010). Scandinavian approaches to population measurement avoid differentiating between people on the grounds of ethnicity (see Lie, 2002). It is therefore unclear how many people self-identify as Sámi. Estimated numbers vary across sources, with 60,000 being estimated by Svonni (2001), and 150,000 estimated by Rasmussen and Nolan (2011). It is considered that 30,000 of these speak a Sámi language (Magga, 2014). The majority of these (between 70% and 90% depending on the source) speak Northern Sámi (Pietikäinen and Kelly-Holmes, 2011; Rasmussen and Nolan, 2011).
One potentially useful measure relates to the number of people that are included in the electoral register for the Sámi parliament. Inclusion is based on self-identification as Sámi. However, people who fulfil this criterion must also use Sámi as a home language, or have a parent, grandparent or great-grandparent who used the language in this context, or had a parent who is or has been a member of the electoral register (cf. Sametinget, 2014b). The use of language as a broader marker of Sámi identity in this context is controversial (cf. Hiss, 2013). This is because it excludes individuals whose great-grandparents did not speak a Sámi language. Using this method to estimate population size is further constrained by the fact that it also excludes Sámi people who don’t recognise the Sámi parliament.

Sámi people may also be reluctant to self-identify as Sámi because of the continuing marginalisation and stigmatisation of this community in Scandinavian societies (cf. Hiss, 2013; Johansen, 2009; Pedersen and Høgmo, 2012). Hiss (2013, p. 65) has

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16 The majority of Tweets are posted in ’Sápmi’, with the exceptions of Moscow, Brussels, Oslo and Stockholm.
interviewed members of the Sámi community about their experiences of being bullied because of their ethnicity. A recent SAMINOR study also revealed the extent of racism experienced by users of this, and other, minority languages in Norway (cf. Lund, Melhus, Hansen, Nystad, Broderstad, Selmer and Lund-Larsen, 2004). These processes of marginalisation were the subject of a documentary series broadcast by NRK, the Norwegian public service broadcaster in November 2013, entitled ‘Den Stille Kampen’, (The Silent Struggle).

In spite of these problems, and of the absence of a solid basis from which to estimate the total number of Northern Sámi users, statistical data is available about the number of children that learn Northern Sámi in Norwegian schools. Between 1889 and the late 1960s, education in Norwegian schools was to be undertaken in Norwegian (Helander, 2005). Similarly in Sweden, education in Northern Sámi was not available until 1950 (Svonni, 2001). In Finland, six schools commenced teaching in Sámi in 1970. Consequently, most Northern Sámi users over the age of forty have not received formal education in reading or written language use. Efforts to reintroduce teaching in the Northern Sámi language commenced at the end of the 1960s (Helander, 2005). This expanded in very small increments. The Norwegian Central Statistics Bureau records only 940 children educated in Sámi in Norway in 2008 (cf. Rasmussen and Nolan, 2011; Statistisk sentralbyrå, 2010).

The historical timing of the introduction of education in Northern Sámi coincides with the growing development of global Civil Rights and indigenous movements in the 1960s (cf. Brantenberg, 2014). The impact of these movements is discussed further below.

Social Movements

Social movements to promote Sámi interests and rights began to form at the beginning of the 1900s. On 6th February 1917 a ‘Sámi National Meeting’ was organised by Elsa Laula Renberg at Trondheim. This congress was the first event to gather Sámi people from the entire Sápmi region to discuss issues of relevance and concern to them. It is now marked annually by a celebration of what is called ‘Sámi National Day’ on the 6th February (cf. Brantenberg, 2014).
The Second World War particularly impacted the mobilisation of movements to promote Sámi interests. The Nazis had occupied Norway. On their retreat, they implemented a ‘scorched earth’ policy. This aimed to hinder the progress of the Soviet army. It resulted in the destruction of many towns and areas where Sámi people lived. Norwegian-speaking authorities rebuilt these towns. Consequently, this contributed to establishing Norwegian as the official language of business in areas where Sámi languages had previously been spoken (cf. Lane, 2014).

From the 1960s onwards however, social movements began to gather momentum. These reached a critical point with the protest against the construction of a hydroelectric dam at Alta in Northern Norway between 1979 and 1981. This protest, although unsuccessful, saw cooperation between Sámi, Norwegians and international environmentalists. The protest aimed to protect an area of land of environmental value that was traditionally used by the Sámi community. This movement brought an increased energy to the promotion of Sámi interests. This extended beyond Alta to the entire Sápmi region. It led to a number of measures being taken to halt what were open policies to assimilate the Sámi community into Norwegian, Swedish and Finnish societies (see Brantenberg, 2014; Ijäs, 2012).

Sámi parliaments were established to represent the interests of the Sámi communities within the broader national contexts in which they were situated. The Norwegian Sámi Parliament or ‘Samediggi’ was established in 1989. The Finnish Sámi parliament was established in 1996. This increased the status of the Finnish Sámi Delegation that had operated between 1973 and 1995. In 1993, a Swedish Sámi Parliament was also established (cf. Pietikäinen, Huss, Laihiala-Kankainen, Aikio-Puoskari and Lane, 2010). Language Acts were introduced and administrative areas were established where it was possible to use Northern Sámi to interact with public authorities (cf. Pietikäinen et al., 2010). Sámi people living outside of these geographical areas do not have the same access to language rights. In Norway, there are nine 'Språkforvaltningsområder', or language administrative areas.17 Similarly to Gaeltacht regions, the population of language users relative to the overall population in these areas varies. This impacts the

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17 These are Karasjok, Kautokeino; Nesseby; Porsanger; Tana; Kåfjord; Lavangen; Tysfjord; and Snåsa.
extent of opportunities that are available in each area to use the language in everyday contexts.

In 2011, the council of Tromsø withdrew its application to become a language administrative area. This related to a change in the political constitution of the council. It resulted in controversy and protest by the Sámi community, and a wave of media interest in the topic. Newspaper articles, tv debate programmes, blog posts and Social Media interactions discussed what this controversy meant for the Sámi community in Tromsø, and beyond. Hiss (2013) has analysed how the debates in these media were dichotomised in terms of those ‘in favour of’ and ‘against’ increasing Sámi language rights. This conflict-oriented media coverage has been found to characterise issues relating to the Sámi in studies of Norwegian media (cf. Eide and Simonsen, 2007; Ijäs, 2012; Skogerbo, 2001). It relates to traditional difficulties in terms of the extent to which members of this community could access opportunities to engage in mediated communication. These are discussed further below.

(b) Access to Mediated Communication

Understanding how users of minority languages can access media is critical to understanding their participation in mediated communication. Eide and Simonsen (2007), Ijäs (2012) and Skogerbo (2001) have demonstrated that where issues relating to the Northern Sámi community were represented in Norwegian media, they were for the most part framed as exotic or conflict-oriented. This was because they were portrayals of a minority by a majority community. International research points to similar trends in terms of the difficulties minorities face in gaining access to opportunities for representation and challenging stereotypical portrayals (cf. Hall, 1997).

Some media services that target the Sámi communities are produced in Norway, Sweden and Finland. These provide some balance against the limited coverage provided ‘about’ the community in majority media. Josefsen and Skogerbo (2013) examined the existence of a Sámi public sphere in Norway with reference to the 2009 elections of the Sámi parliament. They found that while some relevant coverage was provided in areas in Finnmark where the elections were considered relevant, this decreased the further away from this area the media services they sampled were based.
Ságat is a primarily Norwegian-language Sámi newspaper that includes some articles in Northern Sámi. Ávvir, founded in 2008, joined two previous rival Sámi language newspapers. Ávvir is published in Karasjok and Kautokeino, two areas where Northern Sámi is spoken as a community language. These newspapers depend on government support, and their low circulation numbers mean that they would not survive otherwise (cf. Josefsen and Skogerbo, 2013; Pietikäinen and Kelly-Holmes, 2011). A Christian monthly magazine, Nuorttanaste is also published in the Northern Sámi language in Norway. In Sweden, the newspaper Samefolket is published primarily in Swedish for the Sámi community.

Apart from these four publications, the Swedish, Norwegian and Finnish Public Service Broadcasters combine to provide a service to the Sámi community. While the Internet and Radio services provide coverage in both the majority languages and in Northern Sámi, the extent of TV coverage is limited. A daily 15-minute news programme is broadcast in Northern Sámi (cf. Pietikäinen, 2008). It could be argued that the cost of providing a more comprehensive TV service relative to the size of the language community is prohibitive. In spite of this, providing access to mediated communication has been demonstrated to be of crucial relevance to supporting the integration and participation of minority communities in society (Hall, 1997).

This low level of access to mediated communication has resulted in some independent Sámi services being established on the Internet. These include the youth newsletters ‘Jurddabeassi’ (Jurddabeassi, 2014) and ‘Nuorat’ (Nuorat, 2014). Both provide content in Northern Sámi and create new opportunities to use these languages online. Apart from this, with the exception of the Internet sites of Public Service Broadcasters, very little content is provided in the Northern Sámi language on the Internet. This situation is also complicated by the historical written tradition of the language.

Written Tradition
Northern Sámi was historically an oral form of communication. Although some books were published in the Sámi language in the seventeenth century, these were translations of biblical texts and of a Swedish songbook. Magga (2002) argues that these translations were poor and mixed a number of dialects. They were produced for, rather than by, the Sámi community. Writing in Sámi by Sámi people did not commence until
the beginning of the twentieth century. It was therefore not considered a relevant mode of communication by Sámi people until that time (cf. Magga, 2002).

Lane (2014) discusses how processes of linguistic standardisation are always undertaken with specific ‘users’ in mind. While the establishment of a written standard can be empowering, it can also stigmatise users who don’t identify with the standard or oppose it for a range of reasons. During processes of nationalisation, certain languages and cultures were standardised and adopted as supporting the ‘national’ identity, whereas others were discarded (for a comparison to the Irish language case, see Mac Mathúna, 2008; see also Andersen, 1983; Heller, 2006). As Northern Sámi did not relate to any ‘national’ identity-building project during this period, resources were more often mobilised to marginalise the language than to support it.

Written communication in Northern Sámi was complicated by the development of its orthography. Magga (2002) discusses how a number of different orthographies were created for the language in Norway, Sweden and Finland. These were for the most part produced by researchers from outside of the Sámi community. These researchers wanted to understand the structure of the language rather than provide a tool of relevance to the Sámi community. Consequently, the orthographies they designed were not constructed with users of the Northern Sámi language in mind.

It was not until 1979 that a Nordic standard orthography was developed for the Northern Sámi language and adopted in Norway, Sweden and Finland (Magga, 2002). This orthography includes characters that are not provided on standardised computer keyboards.18 During the 1990s, when the Norwegian Government was ordering new computers for its administration, the Norwegian Sámi Parliament succeeded in influencing the contractual negotiations to include a requirement to support the Northern Sámi language.19 Consequently, a Sámi-language keyboard is available on PC computers and laptops sold in Norway. However, a similar arrangement was not undertaken for the purchase of Mobile Phones and tablet devices. As discussed in the Introduction, it has taken until December 2014 to make a keyboard that supports the use

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18 For a discussion of the diffusion of the standard QWERTY keyboard see Rogers, (2003).
19 Interview with Anne Britt K. Hetta, Director of the Language Centre at the Sámi Parliament, 31 January 2013.
of the Northern Sámi language on mobile devices accessible (cf. Sametinget, 2014a). This has caused a barrier for users of the Northern Sámi language to access opportunities to communicate in their languages with these mobile devices.

Questions of written language development are also complicated by the fact that Northern Sámi is spoken in three countries with three different majority languages. In Norway and Sweden a related North-Germanic language is the majority language, while in Finland, Finnish, a Finno-Ugric language is the majority language. This brings about a situation where adapting the language to cope with modern contexts, results in different translations being used in each of the three countries (see Magga, 2002). Consequently, it can be difficult for users of Northern Sámi to understand what other users of their language, who are based in a different country, are referring to. Work undertaken at the Giellatekno centre at the University of Tromsø attempts to overcome some of these challenges (Giellatekno, 2014).

Magga (2002) maintains that the fact that the written standard of the language was developed by researchers from outside the Sámi community led to a sense of inferiority amongst the Sámi community about their competence in using their own language. The fact that formal education in Northern Sámi has only been reintroduced in Norway, Sweden and Finland since the late 1960s, has further limited the extent to which members of this community have had access to opportunities to learn and use the written standard of their own language. These factors complicate the creation of opportunities for written language use. Against this backdrop, creating new opportunities to use the Northern Sámi language in Social Media can be understood as an innovative practice.

Comparing the Irish and Northern Sámi Cases:
I chose to study two cases of minority languages in order to be able to compare my findings and to expose any analytical blind spots that might arise from my personal situation and involvement in the Irish language context. My approach in this regard is discussed in detail in Chapter Three, Methodology. The following discussion highlights the main areas where both cases compare and highlights one major analytical blind spot that arose.
The potential number of speakers of Northern Sámi is assumed to be much lower than in the Irish case. The estimated size of the total Sámi community is similar to the number of people who say they have some ability to use the Irish language in Northern Ireland. This implies that a potentially much larger number of people can understand the Irish language online. However, Caulfield’s (2013) research points to the fact that the number of people included in active Irish-language networks is between 150 and 300. Only between one-third and half of these regularly interact with more than three people. Consequently, functioning networks of language users may be quite small. The impact of overall population size and structure for the extent to which users create new opportunities to use their languages in these contexts forms an important comparative backdrop to my analysis.

The ‘minority status’ of both the Northern Sámi and Irish languages is debated, in spite of their obvious status as endangered languages. Within the Sámi community, these debates surround the extent to which Northern Sámi should be supported at the expense of other smaller varieties (see Magga, 2002). Similarly in the Irish language case, the extent to which the language should be supported as a minority language is debated.

Relatively little televised content is broadcast in the Northern Sámi language particularly when compared with the Irish language case. Furthermore, although both Ságat and Ávvir have an online presence, the structure of their websites does not facilitate easy interaction or sharing of articles. In addition, not all of the stories from their print versions are available online. Only the joint Public Service Broadcasters’ Internet service provides regular written and updated content in the Northern Sámi language. This influences how users can access content of relevance in their languages in order to discuss topics of interest to them in Social Media. This point of contrast also informs my study.

The main goal of language planning in the Northern Sámi context is the provision of education. Although all children are entitled to education in Sámi, the realisation of this right is not always accessible to them (cf. Sametinget, 2012). This contrasts with the historical provision of Irish-medium education since 1922 in the case of the Irish Free

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20 See also Skogerbø et al., (2015) for a discussion about this.
State. This measure has led to the fact that 40% of the population of the Republic of Ireland declare that they can understand the language. By contrast, Irish medium education was not introduced in Northern Ireland until Bunscoil Phobal Feirste commenced teaching nine pupils in 1971 (Bunscoil Phobal Feirste, 2014). The impact of various educational policies influences the potential size of the language networks that users of the Irish and Northern Sámi languages can reach. This consideration also informed my research.

Finally, the accessibility of the orthographic structure of the Northern Sámi and Irish languages is taken into account. The Irish alphabet, which originally used Gaelic characters, was standardized to a Latin script in the mid 20th Century (cf. Mac Mathúna, 2008). This means that the only characters not included in the standard QWERTY keyboard were accents placed over vowels, resembling the French ‘accent aigu’. In practice, this means that the Irish language can be used on any technological device that is available to a French speaker. By contrast using the Northern Sámi language on mobile phones and tablets is complicated by the fact that the software on which these devices is based has not, until very recently, provided access to all of the characters that are required to write in this language.

Implementing a comparative case study revealed one major blind spot that I had in terms of understanding the various contexts in which minority languages are presented. Kendall King (2007) has highlighted ten claims on which discourses related to language loss and endangerment are based. One of these is the fact that these discourses are grounded in a monolingual fallacy. This implies that a minority language should be restored as the only language that people use at home and in the community, and therefore available and accessible to users to the same extent and in the same range of domains as a majority language. This presents an impossibly high ideal towards which minority language users must strive in order for their languages to have the same value as majority languages. It also ignores the multilingual reality in which many people, including minority language users, conduct their lives (see also Ó Laoire, 2008; Pietikäinen and Kelly-Holmes, 2011). Research in the field of multilingualism takes a critical view of language as an ideological construct, and of this requirement for monolingual parity. It is argued instead that the social realities of linguistic encounters and interactions are much more fluid (cf. Weber and Horner, 2012). The challenges
presented in this context can lead to frustrations when language revitalisation projects are considered unsuccessful, futile, and abandoned.

As discussed the Irish language is a privileged minority language (Kelly-Holmes, 2011). This privilege relates to its national status. It also relates to its historic tradition as a written language. As Lane (2014) argues, while processes of linguistic standardisation may serve to strengthen and empower some users, others may be excluded or alienated if their understandings of language are not considered during the standardisation process. The written Northern Sámi language was developed by researchers from outside this community (cf. Magga, 2002). The elevated status of written communication, something that had not been considered relevant or necessary by members of the language community, and the process by which it was introduced, resulted in considerations of inferiority amongst members of this community (cf. Magga, 2002). The written Irish language standard was also developed by academic elites, and was not accepted by many users of the language in Gaeltacht areas (cf. Mac Mathúna, 2008). However, members of the Irish-language community have had access to education in written Irish since 1922. Understanding the degrees of similarity and contrast between both cases in this regard, and their implications for how written communication occurs in both languages in Social Media, is essential to the analytical integrity of this project.

From this contextual point of departure I set out to understand how users of the Irish and Northern Sámi languages created new opportunities to use their languages in Social Media. I also explored how these could be understood as processes of innovation. In the next chapter I outline the theoretical framework for my study.
Chapter Two: Theoretical and Conceptual Framework

De Rēir a Chéile a Thógtar na Caisleáin
(Irish Proverb: Rome wasn’t built in a Day)

Introduction:
This chapter sets out the theoretical and conceptual framework within which this research project is situated. In order to understand how the participants innovated in Social Media to create new opportunities for minority language use, I adopted an interpretive approach. This prioritised gaining an understanding of the research object over a strict adherence to one theoretical discipline or related set of methods. In this regard, the project benefits from its grounding in the field of Media and Communication studies. This field has been interdisciplinary since its inception, drawing on theoretical influences from both the social sciences and the humanities (cf. Jensen, 2012). Within Media and Communication studies, it is considered appropriate to integrate theories from related fields to form a solid basis for enquiry. This facilitates the kind of research that is necessary to address this project’s research questions.

The innovative processes I was interested in observing aimed to address social needs in media contexts. Consequently, theories of innovations as developed in the evolving fields of Media Innovations Studies, and Social Innovation Studies were considered most appropriate to support my analysis. Because the processes related to the creation of new opportunities to use minority languages in these mediated contexts, I also drew on concepts and perspectives from the field of Minority Language Media Studies. Although concepts from each of these fields were useful and applied during the analysis, none of them were sufficient to provide a holistic framework to analyse the implementation of social innovations in media contexts. Consequently, I needed to search for a relevant framework through which to do this as the study evolved. In this chapter, I discuss the processes of theoretical investigation I undertook in order to develop this framework.
The project’s overarching research questions are as follows:

- How are individual users empowered to create new opportunities to use their languages in Social Media?
- How can analysing these users’ practices as innovations provide a more nuanced understanding of the discourses of empowerment that surround them? and,
- Which theoretical frameworks or concepts support the analysis of innovations that aim to address social needs in media contexts?

In order to address these research questions, I devised three theoretically grounded sub-questions. The first section of this chapter focuses on presenting these sub-questions and the concepts and theories I used to address them.

The theoretical framework I developed enabled an analysis of the innovations I observed. I argue that in order to be able to realise the benefits associated with social innovations that occur in media contexts, we need to understand them better. Consequently, being able to compare and contrast the findings of different case studies of these kinds of innovations would be useful. As a result, in the second section of this chapter, I present the overarching theoretical framework I developed. I argue that implementing this framework to analyse comparable innovations will facilitate an understanding of common aspects of concern that relate to these processes.

**Section One:**

**1.1 Empowerment and Relevant Needs**

In this sub-section, I discuss the theoretical concepts and perspectives I employ to address the following research question:

- How do the communication needs of minority language users relate to the discourses of empowerment that surround Social Media?

In order to address this research question we need to understand how and why the discourses of empowerment that relate to Social Media are constructed, and how these relate to the needs of minority language users. I maintain that exploring Social Media as innovations allows us to interrogate the conditions for empowerment that they present. This is because it enables a focus on the social processes of innovation through
which these technologies have developed (cf. Storsul and Krumsvik, 2013). Consequently, we can analyse how the conditions for empowerment have evolved in these processes. In the following discussion I analyse how the concept of empowerment is understood and implemented in current discourses. I then explore the extent to which it relates to needs that might be relevant to users of minority languages.

*Empowerment*

The concept of *empowerment* is operationalized in different contexts in Media and Communication theory. Empowerment is presented as a solution to marginalisation (cf. Hall, 1997; Jenkins, 2006), necessary in order to gain access to means of representation (cf. Hall, 1997; Riggins, 1992), and one of the aims of social networks (cf. Alia, 2010 and Tuhiwai Smith, 1999).

Understanding empowerment first requires an exploration of the ‘power’ it relates to. Foucault (1980) stated that power was constituted in social networks. This definition is particularly useful to analyse the conditions for empowerment in Social Media. Because these media present networked structures, the concepts of *agency*, *structure* and *structuration*, as developed by Giddens (1984) provide additional tools with which to explore the manifestation of power. The combination of these concepts allows for an exploration of *agency* as the capacity to act and cause effect within networked structural conditions. Giddens proposes that the relationship between agency and structure is interactive, where both influence, reproduce and transform each other.

According to Rasmussen (1995, p. 111) Giddens’s theory relates to the extent to which agents can deploy a range of causal powers that include the power of influencing others. This influence is essential in the context of *diffusing innovations* (Rogers, 2003). It is needed in order to convince others about the benefits of adapting particular innovations, or taking particular actions. These theories therefore support an exploration of how promoting particular technologies as ‘empowering’ might influence their adaptation and use.

Further perspectives from the field of Science and Technology Studies (‘STS’) are useful to explore the diffusion of technological innovations and how these relate to conditions of power. These theories maintain that technologies are designed to serve
particular interests. Actor-Network Theorist Bruno Latour (2005) for example has pointed out that technological innovations entrench rather crude definitions of the social world, providing a highly focused but limited view of the whole. Theories within the related field of the Social Construction of Technology (‘SCOT’) indicate that processes of technological standardisation necessarily include certain users while disregarding or isolating others (cf. Bowker and Star, 2000). The capacities for communication signified by these technologies therefore depend on the power relations among the actors involved in their development (Oudshoorn and Pinch, 2003, p. 6).

These theories raise the question of who is influencing whom in processes of technological innovations, and how users are being ‘inscribed’ in their design and use (cf. Colbjørnsen, 2015). In this regard, Proulx, Heaton, Kwok Choon and Millette (2011) have theorised the ‘paradoxical empowerment’ that practices of online contribution in Social Media present. They argue that the act of content creation that defines ‘produsage’ (Bruns, 2008), or the creation of user-generated content, in these contexts is also an act of submission to the economic system on which the Internet is based. Following Negri (1982), Proulx et al. (2011, p. 15) differentiate between understandings of empowerment as ‘the capacity to act’ and ‘the power to act’.

I argue that these distinctions provide important insights into the discourses of empowerment that surround Social Media. The media corporations that provide these platforms facilitate the ‘capacity to act’ by providing standardised technological innovations. Following Proulx et al. (2011), we can therefore conceptualise the dominant relationship between them and their users. The power to act, on the other hand, is a broader competence that users of these platforms possess, because they are social actors. It enables them to act in relation to technology and other members of society in order to change the course of social development. I highlight this difference with reference to the example of the Northern Sámi keyboard that I have previously introduced.

The Northern Sámi orthography was not supported on mobile devices prior to December 2014. These devices had been broadly integrated in daily communication practices in Norway for at least five years (SSB, 2014). They therefore limited the ‘capacity to act’ and communicate in the Northern Sámi language in Social Media.
However, users of this language also had the ‘power to act’. They designed new keyboards that supported this language in order to change this situation.

Earlier research by the Communication theorist John Higgins (1999) further supports this distinction. Higgins analysed the conditions that supported social action in the process of innovation that related to the development of community television in the USA in the 1960s. He argued that the concept of empowerment was often used in a sense that related to technological utopianism, where innovations in media technology of themselves were understood to be a means by which users could be empowered.

Higgins (1999) noted that the most significant critiques of the community television movement argued that the vision of empowerment did not address the structural challenges necessary to correct social inequities, partly because of the extent to which it fetishised technology. As technologies are socially constructed, and thereby constrained by the extent to which they are designed and used by people, considerations of their empowering or disempowering properties cannot be separated from the societies within which they are used (see also Feenberg, 2005).

Social Media are commercial platforms. In highlighting how they ‘empower’ individuals, the providers of these platforms refer to a capacity to act or ‘participate’ within their structures. This participation results in the generation of data about individuals that is aggregated and traded for commercial purposes. Consequently, this ‘empowerment’ would appear to primarily serve a commercial interest. At the same time, users also have the power to act in relation to these technologies, and the social-networked structures they present. This presents the related question of how users define their own communication needs in relation to these platforms, and how these relate to the overarching discourses of empowerment that surround them (see also Fraser, 1999).

Studies of social innovation examine how processes of innovation can address social needs. Social Innovation theorists Mulgan et al. (2007, p. 21) have pointed out that in order for these kinds of innovations to be successful they must address needs that are considered relevant to their users. They maintain that empathy is the starting point to understanding user needs and that in the context of research, ethnographic methods are
usually more relevant tools than statistical analysis in order to understand the nuances that surround them. They also maintain that people should be understood as being best positioned to understand their own needs and solve their own problems (2007, p.21-22). These theories therefore point to the fact that individual empowerment relates to an identification of the needs people themselves have, rather than needs that are constructed to support the diffusion of particular technologies. Within this study, I aim to understand the communication needs of the participants by implementing ethnographically inspired research methods.

**Communication Needs: Access and Reach**

In this section I focus on how the communication needs of minority language users have theoretically been conceptualised. I maintain that exploring these needs through the lens of innovation provides useful insights into how they relate to current developments in Social Media technology. I structure this discussion according to Pietikäinen and Kelly-Holmes’ (2011) delineation of three key eras in the development of minority language media. The eras they identify are the ‘gifting era’, the ‘service era’, and the ‘performance era’.

**The Gifting Era**

In the gifting era, centralised or regional authorities granted access to limited communication resources to minority language communities. This ‘gifting’ was a response to social movements that articulated the communication needs of minority language users. I briefly discuss why access was considered important.

Studies of traditional media investigated how minority groups encountered barriers to access to these media, and the consequences of this in terms of social integration. In particular, Stuart Hall’s work in relation to the ‘politics of representation’ called attention to the struggle of black people to access means of representation, and highlighted the use of the concept ‘black’ as a symbol of marginalisation, used against dominant white representation, in Britain in the 1970s (cf. Hall, 1997). Minority Media researchers such as Stephen Riggins (1992, p. 3) also highlighted the importance of what he referred to as ‘the media imperative of modern life’, namely the development of Ethnic Minority Media, to increase access to the means of representation to address stereotypical representations of minorities in majority media.
In traditional media contexts, communication resources were limited. This was both because there was a limited capacity to broadcast content by analogue frequencies, and because of the costs involved with establishing and maintaining broadcasting services (cf. Jenkins, 2006). Consequently, communication resources were controlled and managed by nation states. Riggins (1992, p. 17) maintained that within these structures, minority groups required significant empowerment in order to control their own media.

Minority Language Media researcher Mike Cormack (2007) argued that this presented an essential problem. Given the resources required to provide these media, the support of majority communities was usually required. Cormack argued that the empowerment of a minority community could be profoundly unsettling for a majority community, as it upset the myth of the homogenous nation-state. The application of these arguments is interesting in the context of how individual users now access opportunities to communicate in Social Media platforms. In these contexts, the nation state is no longer the central actor that ‘gifts’ or grants the capacity to act in media contexts.

The extent to which the Sámi community have had access to opportunities for communication in Norwegian media has been analysed by a number of researchers (cf. Eide and Simonsen, 2007; Ijäs, 2012; Skogerbø, Josefsen and Ni Bhroin, 2015, see also Pietikäinen, 2003 for an analysis of newspaper coverage in the broader Sápmi region). This research demonstrates that this community historically received little media attention. The coverage that was provided was usually stereotypical or conflict oriented. This involved the exotic portrayals of Sámi traditions, such as those associated with the reindeer herding industry. Conflict-oriented coverage increased during the Alta conflict (1979-1981) and the establishment of the Sámi parliament in 1989.

Ijäs (2012) argues that the representation of the Sámi community became more nuanced with voices representing different interests gaining some access to media during the Alta conflict. Gradually, more Sámi sources were consulted in news items, and Sámi journalists were hired to cover these and other issues. However, more recent work conducted by Skogerbø et al. (2015) demonstrates that there continues to be little coverage of issues related to the Sámi community, and little in the way of nuanced representations in traditional Norwegian media, particularly outside of the Finnmark
region in North Norway. Furthermore, even less content was provided in the Northern Sámi language, or in any of the Sámi languages (cf. Pietikäinen, 2008).

The Service Era
The second ‘service era’ was characterised by a focus on the kinds of services that minority language users should have access to. In media contexts, as (usually) multilingual people, users of minority languages have access to a range of services in majority languages that cater for their information needs to various degrees. These media are often better resourced than minority media, resulting in a higher quantity and better quality of output.

Kelly-Holmes (2014) notes that Tom Moring’s (2007) concepts of ‘institutional completeness’ and ‘functional completeness’ are characteristic of this era. Moring uses these concepts to argue that users of minority languages should have equal access to opportunities for communication as those of majority languages. Moring (2007) argues that where functional completeness is not possible, users of minority languages are likely to favour media output in majority languages because it is better resourced. These concepts have been problematized within the field of Minority Language Media Studies because it is argued that they provide unrealistic standards for minority language communities to achieve (cf. King, 2007).

Uí Chollatáin et al. (2011) has documented this phenomenon in the context of the provision of an Irish-language printed newspaper in the Republic of Ireland. Various attempts to develop a commercially viable newspaper were implemented. However each new product competed with dominant and well-resourced English-language newspapers. Consequently, Uí Chollatáin et al. (2011) argued that encouraging the purchase of additional media products and services purely on linguistic grounds was not a reliable business strategy.

This discussion about the ‘service era’ highlights the importance of the concept of ‘reach’ in the context of minority language media. Minority language communities constituted small audiences. In audience studies the concept of reach is used to describe

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21 Finnmark is an area in North-Norway where the Sámi culture is considered strongest.
the size of an audience that can be reached in order to generate advertising revenue. The concept also relates to navigating potential mediated avenues in order to reach particular audiences. In traditional media contexts, minority audiences could not generate significant revenue. Consequently communication that related to them was often excluded from traditional media services.

The Performance Era
Pieitkäinen and Kelly-Holmes (2011) propose that the third era is characterised by ‘performance’, where individuals are the central actors in language maintenance. The development of this era is marked by earlier theoretical work such as that of Crystal (2000) who argued that Internet access increased the potential to maintain minority languages. More recently Jones (2013) has argued that because Social Media technologies are integrated with everyday communication, they represent important tools for minority language maintenance and revitalisation.

The conceptualisation of this era relates to the capacity of individuals to act in Social Media structures. In particular, it relates to the potential solutions to the limitations of access and reach users of these languages experienced in traditional media contexts. This relates to the technological access to means of communication, and the potential to reach networks of users with whom to communicate, that these media present.

Theoretically, it is anticipated that Social Media provide users with the capacity to present themselves, construct their own identities and discuss their interests (cf. boyd and Heer, 2006; Marwick and boyd, 2011). Baym and boyd (2012) also argue that they represent the potential for more nuanced discussions that reveal the variety of attitudes and processes of meaning-making that exist within heterogeneous communities.

However, as innovations, these media do not present the conditions required to change the balance of power brought about by historical processes of marginalisation. In order to do this, individuals require the power to act in relation these technologies and the social contexts in which they use them.
Alia (2010, p. 7) argued that the international contexts of the networks being built up by indigenous communities enable these communities to emerge ‘from the shadows of a shared colonial inheritance’. She maintains that this capacity changes the dynamics between minority and majority communities. However, the extent to which indigenous communities share a colonial inheritance is considered problematic, particularly as different conditions of colonialism were experienced in each context (see also Tuhiwai Smith, 1999). Alia (2010) states that minorities can use new media to expand their collective power, and protect and maintain specific languages and cultures.

While users of these technologies may experience certain aspects of empowerment, it is important to analyse the extent to which both social and technological factors continue to constrain their power to act. These users may have emerged from the shadows of a shared colonial inheritance, but in doing so they have entered hyper-visible commercial arenas where the capacity to act is granted and ultimately controlled by a small number of private investors.

I have outlined a range of conceptual tools and theoretical perspectives that support an analysis of how the discourses of empowerment that relate to Social Media are constructed. These discourses aim to influence users to participate in these contexts. The participation of users in these media is exploited for commercial purposes. At the same time, users of minority languages can create new opportunities to communicate through this participation. This may address some aspects of the historically limited opportunities to access mediated communication, and related considerations of reach, that users of these languages experienced. During the course of my research project, I explored how users identified their own communication needs in relation to these technologies.

I argue that in focusing on the role of individuals, and the potential for their participation in the performance era, these theories do not adequately interrogate the conditions that influence how individuals experience the power to act in relation to these technologies and the social structures in which they are presented. In particular, while access to media is no longer constrained by nation states, I argue that Social Media platform providers become the new ‘gifting’ actors. The problem is that this raises questions about the nature of the ‘gifts’ they grant, and of how these relate to the
actual needs of minority language users. European nation states are held accountable by democratic systems. Social Media platform providers are not subject to the same requirements for accountability and transparency.

These media represent new-networked contexts and new constellations of actors amongst whom potential opportunities for access and reach are negotiated. In order to understand how these technologies can be used to address the needs that users themselves identify, theoretical concepts that support assessments of the capacities for communication that these technologies present are required. In the next section, I present a range of theoretical concepts and perspectives that support this further analysis.

1.2 The Instrumentalization of Technologies

In this sub-section, I discuss the theoretical concepts I employed to address the following research question:

- How do minority language users instrumentalize technologies in order to address their communication needs in Social Media?

Feenberg’s (2005) theory of instrumentalization highlights how users can resist the meaning of particular technologies and repurpose them to serve their goals. Feenberg (2005) argues that while technologies are standardised to present specific purposes or functions for use, these can be decontextualized by users and repurposed in order to address the needs that they identify. The theory of instrumentalization therefore supports an analysis of the power that individuals have to act in relation to technology. Minority language users engage in practices of instrumentalization in Social Media. The relevance of these media as platforms for minority language communication must be established and negotiated. Consequently, I argue that we need to understand how the capacities for communication that Social Media present can be instrumentalized to support communication in minority languages.

A concept that complements the theory of instrumentalization and relates to Media Innovations is that of domestication as introduced by Silverstone and Hirsh (1992) and expanded by Lie and Sørensen (1996). This concept facilitates an analysis of how certain cultural and contextual factors influence how technologies are appropriated and
used. In particular, it highlights the requirement to analyse broader socio-cultural factors in an analysis of technological appropriation. This includes exploring the extent to which the commercial and institutional logics of Social Media technologies are based on transformations from previous genres, and relate to broader media ecologies. This concept further supports an analysis of the power relations and consequences for agency that are brought about by these technologies (see also Steensen, 2013).

Theories of Social Innovation indicate that a range of capabilities must be mobilised in order to achieve social goals. These are understood to include social skills such as knowledge and learning, but also a range of additional technological resources (cf. Dawson, Daniel and Farmer, 2010). However, although theories of Social Innovation acknowledge the potential of information and communication technologies in the context of scaling-up and diffusing innovations, they do not provide the conceptual tools with which to analyse the conditions for empowerment that are required to generate media-specific innovations in these contexts.

Social Media do not present the capacity to change social processes of marginalisation that have reduced the domains in which minority languages are used. Instead, users negotiate the relevance of their languages in these new contexts. To do this, users must be able to navigate and access a range of media-specific capabilities. These include the ability to decontextualize the intended function of technology, for example, how to write a ‘status update’. The consequent recontextualising of these capacities to facilitate minority language use require additional creativity and vision. If a minority language is not used in Social Media, it will not be considered relevant in that domain. Consequently, the way in which users of these languages create opportunities to communicate in these spaces represent innovative processes of instrumentalization that establish the relevance of this kind of communication.

Earlier work within the field of media and communication studies also support an exploration of ‘how’ media innovations occur by the negotiation of ‘capabilities’. I refer in particular to Robin Mansell’s axial principles of ‘capabilities’ and ‘design’ (Mansell, 1996). These principles of ‘capabilities’ and ‘design’ are related. The design principle signifies intentionality and purpose, and refers to the capability to initiate and constrain action (1996, p. 23). The capability principle relates to social and
technological capabilities that are required to develop and use technological systems (1996, p. 27). In combination, these principles refer to how specific skills, competences and potential are required in order to design, or generate, innovative outcomes.

Mansell (1996) proposes that capabilities represent both social and technological elements that are present in networked contexts. However, for the purposes of my analysis, I differentiate between social ‘capabilities’ and technological ‘capacities’. This is because I argue that although technologies present the ‘capacity to act’, users need certain capabilities in order to be able to access these capacities. These facilitate and/or constrain communication in a variety of ways. An example of a technological capacity might be the range of standardised protocols through which a certain technological tool facilitates communication. One example in this case might be the TCP/IP protocol on which Internet connectivity is based. These capacities are the result of processes of standardisation and reduction. On the other hand, the way in which technological capacities for communication are by individuals evolves over time and relates to the accumulation of experience and capabilities.

To illustrate this point, Social Media present the capacity for computer-mediated communication (‘CMC’). This capacity has developed with successive innovations in computer design and networked infrastructure. Users that interacted with previous iterations of CMC interpreted the capacities they presented and used them to communicate. This informs their capabilities to communicate in Social Media.

In her book, ‘The New Media Nation’ Alia (2010, p. 167-168) discusses the Sámi Network Connectivity Project, introduced in 2002. This project provided access to dedicated capacities for communication to support the Sámi reindeer herding community. Members of this community could be particularly isolated at various times during the season. CMC was considered to be an avenue to promote information sharing and communication. This project facilitated networking that took the realities of seasonal movement, according to the necessities of reindeer herding, into account. This service provided Email, web caching, reindeer herd tracking and basic file and data transfer services. A similar project, Samenet, was also launched in 1997 to enable members of the broader Sámi community to interact in a dedicated social networking
Although both of these projects were concerned with creating access to opportunities for networked communication amongst the Sámi community, they have ceased to be used. One of the main reasons for this was that the participants migrated to Facebook, a better-resourced and more dominant global social networking platform. Ultimately, the users of the Sámi Network project and Samenet considered that Facebook offered more relevant technological capacities for their communication needs. At the same time, the way in which they communicate in Facebook is informed by the capabilities they have developed through their previous interactions in Samenet and the Sámi Network Connectivity Project.

Understanding innovations in media technology as incremental and relational therefore supports an analysis of how users of minority languages develop capabilities to access opportunities to communicate in these contexts. Facebook is not a social networking site that is used by the Sámi community alone. However, users of the Sámi community are present there because members of their social networks consider it a relevant platform. In interacting in this space, users of the Northern Sámi language encounter broader networked structures and a different range of capacities for communication than in previous networked contexts. However, the fact that they were able to use their language in previous contexts informs how they instrumentalize these new capacities to create opportunities for language use.

* Negotiating Capacities in Flux?

Perspectives within the field of Science and Technology Studies have explored how in the process of innovation, the roles of users in relation to technologies are initially ‘inscribed’ by their designers. These inscriptions are subject to ‘interpretive flexibility’ during the appropriation and use of these innovations (cf. Pinch and Bijker, 2012). According to these, theories, processes of interpretive flexibility gradually stabilise over time as conventional uses for the related technologies are achieved. This is understood to be a stage of ‘rhetorical closure’ (cf. Misa, 1992).
However, Feenberg (2012) has argued that the Internet is a ‘radically open’ technology that resists rhetorical closure and for which innovative uses continue to be derived. New Media researcher Leah Lievrouw (2012) has pointed out that the potential for renegotiation of the capacity to communicate on the Internet relates to its fundamental structure. The Internet was designed as a communication tool for survival. This means that it lends itself to new methods of interconnectivity and new communication designs. Both of these theorists maintain that this structure consequently resists the kind of closure and stability that is characteristic of previous technological innovations, such as the refrigerator, or the bicycle (cf. Pinch and Bijker, 2012).

However, the relative permanence of ‘rhetorical closure’ has also been debated in Science and Technology Studies. The purpose or usefulness of a particular practice can be opened up again and adapted to achieve new goals (cf. Colbjørnsen, 2015). In spite of this, as Feenberg (2012) and Lievrouw (2012) point out, this does happen more often in Internet contexts.

One example of this has been discussed in the context of the Twitter platform and relates to the use of the ‘hashtag’ as a means of organising communication (cf. Highfield, Harrington and Bruns, 2013; Small, 2011). A ‘hashtag’, represented by the ‘#’ sign and a particular word, is attached to Tweets about a particular subject. Each time a hashtag is proposed as a mode of organising communication, a new purpose is assigned to it. This practice has been described by Bruns (2012) as an ‘ad hoc’ innovation.

In spite of the ‘radical openness’ of the Internet, where instrumentalization is possible, Social Media present more restrictive contexts for these processes. For example, when Facebook was originally launched, it was designed as an English-language medium. However, once it began to be appropriated on a worldwide scale, users started to interact with it in different languages and to translate its interface. Facebook then formally facilitated the translation of its interface, and soon over seventy languages were ‘supported’. This was initially an open process, but as it evolved, Facebook implemented more control over the process.
Facebook invited users to participate in *crowdsourcing* projects to review and approve specific translations. It provided the words, textual segments, and strings of information to be translated. It also exercised final approval over the translation of terms. Furthermore, it decided which language communities could participate in the translation project (cf. Lenihan, 2014). Similarly to the example of ‘Gmail as Gaeilge’, Facebook presented the ultimate result of these projects as a benefit to users of these languages.

In an interview with Lenihan (2014, p. 225), a Facebook representative stated that the company was always aiming to add new languages to the platform in order to: ‘help even the smallest cultures connect with everyone around them’. This statement reveals the extent to which Facebook presented these projects as being undertaken for the benefit of users. However, it makes no reference to the fact that Facebook ultimately benefited from these projects, by potentially increasing the number of users that could interact with its service, and in any event increasing the range of data about different users it could gather.

It is no longer possible to translate the interface to ‘new’ languages, without first negotiating with Facebook (see also Lenihan, 2014). However, Kevin Scannell (2014c) has finalised the design of a ‘Greasemonkey’ plug-in, initially developed by Neskie Manuel to translate Facebook to the Secwepemctsin language. This is now available to any group of language users to translate the Facebook interface. The script bypasses Facebook’s ‘official’ translation projects, and enables the translation of its interface through the Mozilla Firefox browser instead. A ‘Greasemonkey’ script makes changes to how a web page appears before or after it is loaded in a particular browser (Greasespot, 2014). This reveals that some instrumentalization continues to be possible. However, a relatively advanced degree of empowering technological skills and capabilities is required in order to understand how to access these kinds of opportunities.

Other aspects that restrict instrumentalization relate to social norms of communication on these platforms. These include for example considerations about interaction and privacy. In Facebook, users generally operate in closed networks, restricting access to their profiles. If within a closed network context the use of a minority language is not
considered relevant, the creation of new opportunities for communication are restricted. The power to act is both socially and technologically constrained. Therefore the potential to create new opportunities for minority language communication is restricted by the norms of communication in a particular network.

Social Media are technologies in flux, operating under a ‘permanent Beta’ status. They are constantly being adjusted and updated by their developers. Users can instrumentalize these technologies to some extent, however the platform operators exert more control in these relationships than users (see also Bücher, 2012). The concepts of interpretive flexibility and rhetorical closure therefore continue to be relevant in these contexts, but require adjustment to reflect the dynamic nature of the environments. The political geographer Ryan Burns (2014) has conceptualised the kind of closure that is achieved in processes of digital humanitarianism as ‘moments of closure’. This concept is also useful to describe the kind of closure that is achieved in processes of innovation to create new opportunities for minority language use in Social Media.

In this section I have outlined the theoretical concepts and perspectives I operationalize to understand how users of minority languages instrumentalize capacities for communication in Social Media. While the theory of instrumentalization is useful to highlight the actions of decontextualizing and repurposing these capacities, I argue that it benefits from the additional focus that is brought by the concepts of ‘domestication’, ‘capabilities’ and ‘design’ as discussed above. In particular, differentiating between ‘capabilities’ and ‘capacities’ supports an analytical focus on the empowering social skills that are required in order to decontextualize the capacities for communication presented by Social Media and to instrumentalize them in order to address social needs. These concepts refer in particular to the broader social and economic contexts in which instrumentalization takes place. They also highlight the requirement for experience, learning and skills in order to engage in these processes. I argue that operationalizing these additional concepts in addition to the theory of instrumentalization is necessary in order to understand my object of study.

Furthermore, as Social Media are Internet-based platforms, they transfer some elements of the ‘radically open’ nature of this technology to their users. I refer in this sense to the potential for creating new and innovative uses for the capacities these technologies
present. Importantly however, these media platforms are controlled by private investors, and are therefore not as ‘radically open’ as the Internet in general. Consequently, processes of instrumentalization within their ‘official’ contexts are constrained. However, it is still possible to implement processes of innovation and instrumentalization in relation to these technologies, for example by adjusting how they might appear in specific browsers. In spite of this, a degree of sophistication in terms of capabilities such as knowledge, skills and experience is required in order to implement these kinds of processes. I therefore argue that in addition to understanding how the function of capacities for communication are negotiated in Social Media, we need to interrogate how the capabilities required to instrumentalize them are facilitated or constrained by the range of agents that are involved in these spaces.

1.3 New Constellations of Agents in Hybrid Communication Contexts

In this sub-section, I present the theoretical framework I developed to address the following research sub-question:

- How is the ‘power to act’, to create new opportunities for minority language use, facilitated or constrained by the networks of agents present in Social Media?

Hybrid Contexts:

Social Media present hybrid contexts for communication. They involve mediated interactions between a range of agents with both commercial and social interests. This influences how individuals can create new opportunities to use minority languages in these media.

In this section I present theoretical concepts that facilitate an analysis of how the interests of the agents that are present in Social Media influence the conditions for the empowerment of individual users of these platforms. I have already discussed how empowerment through participation or ‘performance’ has been presented as a solution to the limited access to opportunities for mediated communication that minority language users have experienced in the past (cf. Crystal, 2000; Jones and Uribe-Jonbø, 2013; Pietikäinen and Kelly-Holmes, 2011). I have also discussed how the negotiation processes to innovate and create new opportunities to use these languages in Social Media have been conceptualised in theories of instrumentalization, and complemented by concepts from Media and Communication Studies and Science and
I argue throughout that the concept of empowerment must be operationalized with reference to the social and technological conditions in which it is manifest. I maintain that in order to understand how processes of Social Innovation occur in media contexts, a critical interrogation of the interests of the range of social and technological agents present in the mediated interactions these involve is required.

New Constellations of Actors:
Theories of Social Innovation indicate that new constellations of actors are required to address social needs (cf. Mulgan et al., 2007). Importantly, in the context of minority language use, I argue that Social Media platform providers take on the primary ‘gifting’ role of granting access to means of communication that was previously undertaken by nation states or regional administrations (see also Pietikäinen and Kelly-Holmes, 2011). Understanding these processes as Media Innovations therefore puts these platform providers at the centre of the analysis. This is important when considering the extent to which they may influence the empowerment of their users. When celebrating ten years of Facebook in February 2014, its creator Mark Zuckerberg stated:

_I always thought that this was important - - giving people the power to share and stay connected, empowering people to build their own communities themselves._

_When I reflect on the last 10 years, one question I ask myself is: why were we the ones to build this? We were just students. We had way fewer resources than big companies. If they had focused on this problem, they could have done it._

_The only answer I can think of is: we just cared more._

(Facebook, 2014c)

The rhetorical approach Zuckerberg takes is to ally Facebook with ‘the little guy’ and to highlight its important role in providing the conditions for empowerment. Zuckerberg avoids mentioning the commercial interests of the platform. Instead he positions it as a student project developed as a counter to ‘big companies’.

To categorise the broad range of agents that influenced processes of Media Innovation, Westlund and Lewis (2014) employed perspectives from ANT and SCOT. With reference to innovations in journalism, they identified three categories of agents: _actors,_
audiences and actants. They identified actors as media operators that produce media content. They proposed that audiences were the target of innovation but also a kind of actor that could influence the process of innovation by practices such as the creation of user-generated content. I argue that the separation of these categories relates to an analysis of media innovation that is grounded in an understanding of the role of traditional media actors in related processes of innovation. In particular, the conceptualisation of audiences implies the granting of a ‘capacity to act’ to actors in this category. This does not facilitate a balanced interrogation of the ‘power to act’ that actors in this category might have. I argue that this is necessary to critically interrogate the conditions for empowerment that may be manifest in these contexts.

Furthermore, as these kinds of innovations can occur without the presence of traditional media actors, I maintain that the categories of actors and audiences can be combined for my analytical purposes. This enables an analysis of how different social actors influence the potential for innovation and empowerment on the same analytical grounds.

Based on Toffler’s concept of the ‘prosumer’ (1980), implying a convergence of roles between producers and consumers, Axel Bruns (2008) constructed the concept of ‘produsage’. Bruns argued that users of new media, such as YouTube and Blogs, were more than just ‘professional consumers’. He maintained that prosumption did not sufficiently explain their practices of communication, which were gradual, continuous, incremental, iterative and never complete. This, he called produsage. While Bruns’ concept of produsage is important in the context of the capacity of users to act in Social Media, it does not interrogate how the broader social and cultural structures in which this capacity is granted, influences how individuals can access these capacities. I argue that this extended analysis is required in order to understand how users of minority languages create new opportunities for communication in Social Media.

As discussed above, Westlund and Lewis (2014) pointed out that actors and audiences engage with a third category of agents, or ‘actants’ when interacting in Media Innovations. The concept of an actant is derived from literary studies and used in ANT to refer to a non-human agent. A magic wand is a typical example of a literary actant. It is a non-human agent that ‘make a difference’ or causes a particular outcome (cf.
Latour, 2005, p. 54-55). Within studies of SCOT the concept is considered controversial because it draws attention away from the fact that all technology is ultimately socially constructed and inscribed with certain values. For example, a magic wand can cause ‘good’ or ‘evil’ outcomes depending on how it is inscribed with power by its user, and on how the outcomes it causes are socially understood (cf. Oudshoorn and Pinch, 2003). Actants, therefore, are designed to serve particular interests, and these interests influence communication in Social Media contexts.

Despite the controversy, the concept of ‘actant’ serves as a useful heuristic to highlight the presence and causality of non-human agents in media innovations. Examples of technological actants in Social Media contexts include algorithms, databases, mobile devices, WiFi networks, and content management systems that influence and constrain social interaction in mediated spaces (cf. Westlund and Lewis, 2014). Inspired by perspectives relating to SCOT, the concepts of actors and actants are also useful to explore how a range of values and interests influence the creation of new opportunities to use minority languages in the hybrid media contexts in which they occur.

*Hybrid Access:*

Within Minority Language Media Studies it has been argued that social networks can strengthen linguistic communities and revive weakened languages by providing access to content in these languages and providing networks of support for learners and more fluent users (cf. Cunliffe, Morris and Prys, 2013, see also Milroy, 2001; Li Wei, 2000). Throughout this study, I explore processes of innovation where minority language users create new opportunities to use their languages. The potential to make minority language use visible in these contexts provides the access that these theories of Minority Language Media Studies have identified. However, users must be able to navigate the networked structures that these technologies present, in order to reach, these ‘visible’ mediated interactions.

The additional concept of networked-reach has been operationalized in the field of Interpersonal Communication. Burt (2000) argued that networks that had more connections and shorter pathways had more cohesive structures and were better able to mount coordinated efforts. He pointed out that numerous gaps or ‘structural holes’ between connections made it difficult for members to reach each other efficiently. This
in turn impacted the extent to which collective action could be supported. I argue that understanding how structural holes influence how users can reach each other in order to communicate can in turn support an understanding of how opportunities to use minority languages are facilitated or constrained.

Discussing how indigenous peoples have historically resisted processes of marginalisation, Tuhiwai Smith (1999, p. 157) states that they have effectively engaged in processes of networking to build relationships and disseminate knowledge and information in ways that circumvent the control regimes of dominant non-indigenous societies. In this regard, Alia (2010, p. 174) argues that the Internet enables connectivity and dialogue between people, groups, regions and nations. She also argues that Indigenous people are using it to develop their own networks, simultaneously maintaining or restoring particular languages and cultures and promoting common interests (2010, p. 8). This would seem to support the theory that minority language use can be maintained in mediated networked contexts.

However, I argue that although the networked contexts presented in Social Media may circumvent the control regimes that traditionally related to the dominance of indigenous communities by non-indigenous societies, the interests of the actors in the new networked constellations these media present need to be interrogated. These media present networked contexts that are ultimately controlled by a small number of private investors.

Social Media, such as Facebook and Twitter in particular, also bring about what Marwick and boyd (2011) have conceptualised as ‘collapsed contexts’. This concept relates to the extent to which members from different group affiliations are present in the same network. For example in Facebook, it is typical that a user will connect to members of their family, old school friends, work colleagues and acquaintances from various interest-based activities. This in turn brings about questions of contextual sensitivity when engaging in communication in these spaces (cf. Nissenbaum, 2011). These collapsed contexts influence how individuals decide to communicate. It is therefore important to analyse how such collapsed contexts may influence how users of minority languages can access opportunities to communicate in these platforms.
Marwick and boyd (2011) illustrate this with reference to an example of how a group of teenagers were incensed when teachers at their school used pictures that the students had posted to their Facebook profiles in public presentations. This anger related to the fact that the context in which the pictures had been posted had changed, without the consent of the teenagers. Marwick and boyd (2011, 2014) discuss how this requires the implementation of strategies, on the part of these teenagers, to manage the ‘networked privacy’ that emerges in these contexts.

Given the commercial context in which interactions in Social Media take place, I argue that we need to acknowledge that it is not possible for a user to determine which actors have access to their interactions at any specific point in time. Furthermore, they are not aware of how their data is being processed and manipulated. These factors influence interactions in Social Media without the knowledge of their users. I argue that greater transparency in this regard would more clearly illustrate the conditions for user empowerment these media claim they present.

Programmed Sociality

Social Media researchers Anja Bechmann and Stine Lombok (2012) have argued that recent studies of new media tend to over-emphasise the role of users in these spaces, at the expense of an analysis of how the structures brought about by these media influence interaction. This research trend relates to the extent to which Internet-based media, divert attention from aspects of their materiality. For example, the simple design of the Facebook and Twitter interfaces draw attention away from the databases, algorithms, codes and protocols on which they are based, and towards the interactions occurring between networked individuals that are presented in user profiles.

It could be argued that achieving immateriality has always been amongst the aims of media service providers (cf. Fuller, 2008). From the development of theatre in ancient Greece, the suspension of reality, or verisimilitude, was central to the experience of mediated content (cf. Todorov, 1977). However, as media innovations developed, ways of financing content became more intricate. These evolved from selling seats in a theatre to finding ways of generating advertising revenue according to the number of people that a mediated message could reach. The Social Media business model is an even more complex innovation. It primarily involves encouraging users to interact
while drawing attention away from the fact that their interactions are being analysed and aggregated in order to construct profiles about them and trade this information with advertisers (cf. Turow, 2013).

The commercial interests of Social Media service providers result in the encouragement of specific kinds of interactions, or what Bücher has conceptualised as ‘programmed sociality’ (Bücher, 2012). They also facilitate the manipulation of these interactions for their own purposes, or for the purposes of research projects, such as the Facebook emotional study (cf. Kramer et al., 2014). Consequently the way in which these interests are manifest and how they influence the conditions of empowerment must be explored.

The algorithmic structures that support Social Media create and respond to pre-programmed categories, and modify courses of action according to pre-defined scripts. These categories and scripts are constructed and designed by culturally situated individuals. The constant evolution and adaptation of these codes, algorithms and protocols makes them almost elusive as research objects. However, we need to understand, if only at the level of principles, how they might constrain or facilitate action in particular contexts.

As Van Dijck (2012) argues, Social Media present us with ‘relationships wrapped in code’. Although users can relatively easily ‘connect’ with others, a number of factors influence the extent to which they do so. For example, Facebook is considered by the participants in this study to be a more private platform than Twitter. As a result, they are less likely to allow people they don’t know to access their profiles. This constrains the kind of people that they can reach in this platform in order to communicate with them. The various norms associated with these platforms, combined with their technological structure, therefore influence the creation of opportunities to use minority languages.

Social Media encourage connectivity and network expansion between users. For example, listing users in individual profiles increases the visibility and accessibility of additional connections. Facebook, Twitter and Blogs allow users to see ‘friends’ of ‘friends’, thus encouraging network expansion by reaching out to communicate with
new connections (cf. boyd and Heer, 2006). They also suggest friends for their users, based on their previous patterns of interaction. This supports the development of ‘networked individuals’ (Wellman and Haythornthwaite, 2002).

Social network analysts such as Carrasco, Hogan, Wellman and Miller (2008) used Simmel’s concepts to explore group affiliations in Facebook and Twitter. Hogan (2010) notes that the use of ‘privacy settings’ on the Facebook platform can limit how people interact with and reach their social networks as categorised by ‘friends’, ‘friends of friends’ and ‘everyone’. In contrast, anyone with access to the Internet can access the predominantly open interactions on the Twitter platform.

Chris Andersen (2006) has highlighted the capacity of the Internet to abolish bottlenecks and support niche markets. He has termed this the ‘long tail effect’. This would appear to be beneficial for minority language users, particularly when combined with the potential for networking that Social Media present. However, in order to connect to new users of minority languages, individuals must be aware of their existence. This existence must be made visible through their existing networks of connections, or, they must use additional capabilities in order to reach this kind of mediated interaction.

While this may appear obvious, consider that an Irish-language user in Ireland has learned the language in school and is interested in improving their competence. Their immediate networks of family and friends do not use the language or consider it to be a relevant mode of communication. How can this individual find other users of this language in order to communicate with them? This question has been conceptualised by boyd, Marwick, Aftab and Koeltl (2009) as the ‘conundrum of visibility’. This means that although the Internet can illuminate all kinds of practices and processes of representation, the extent to which they are seen depends on how users mobilise their capabilities and interact with the technology.

These arguments reveal how users must be able to navigate the structures of Social Media in order to reach content of interest to them or access opportunities to communicate in their languages. Consequently, the potential to reach other users is influenced by the range of agents that are present in a particular mediated interaction. I
have discussed how these agents reinforce particular networked structures, and encourage and manipulate particular kinds of interactions to serve commercial interests. While these media may present tools that can be instrumentalized to address social needs, they may also reinforce existing power structures and dominant language norms within existing network-structures. This presents a requirement for innovative approaches to create new opportunities for minority language use in these media.

Throughout this section I have discussed theories and concepts that categorise the ranges of agents that are present in mediated interactions in Social Media contexts. However, I also indicate that as yet, it is unclear which individual actors or actants are party to specific interactions at any moment in time. This makes it difficult to determine how their interests might influence the creation of new opportunities for minority language use. While elements of the social conditions for empowerment and language use can be explored, the technological conditions remain less clear, beyond the level of principle. Consequently, I maintain that greater transparency and accountability is required on the part of Social Media platforms about the way in which they process and manipulate data relating to the interactions of their users. I maintain that our current theoretical and conceptual tools do not sufficiently enable us to analyse how these interests influence the creation of new opportunities to communicate in these contexts.

**Section Two: Social Media-Innovation as a Generative Critical Concept**

I have outlined how the participants in this study engaged in practices of innovation that aimed to address social needs in mediated contexts. Theories that analyse aspects of Social Innovation and Media Innovation were applied to analyse these practices. However, as the research project developed, I realised that none of the concepts or perspectives that I was applying supported a holistic analysis of my object of study. Consequently, these were not sufficient to support a full analysis of the phenomena I was observing, or the explanations I was trying to provide. I therefore developed the concept of ‘Social Media-Innovation’ to incorporate the elements I required for my analysis.
I argue that the combination of elements of social innovation and media innovation represent a distinct but by no means unique category of Social Media-Innovation that merits separate theoretical development and analysis. I delineate the concept according to three central attributes. I discuss how each of these attributes is derived below:

2.1 Relevance:
I propose that a central attribute of Social Media-Innovations is that they must be considered relevant by users to address identified social needs. This attribute is derived from theories of Social Innovation which indicate that individuals are best placed to solve their own social problems, and that facilitating their empowerment to do so should be a central goal of social innovations (cf. Moulart et al., 2013; Mulgan et al., 2007). Following Mulgan et al. (2007), I maintain that the best way to ensure the relevance of Social Media-Innovations is to consult the individuals they aim to support.

I argue that exploring the relevance of user needs supports a more critical interrogation of the discourses of empowerment that surround the introduction of Media Innovations, such as Social Media. To illustrate, current theories in the field of Minority Language Media Studies indicate that Social Media provide greater freedom for individual expression and language use than has previously been possible in mediated contexts (cf. Jones and Uribe-Jongbloed, 2013; Pietikäinen and Kelly-Holmes, 2011). However, following Proulx et al. (2011), I argue that interrogating the discourses of empowerment that surround these media enables a differentiation between the ‘capacity to act’ that they present to their users in order to serve commercial interests, and the ‘power to act’ that users require in order to exploit these capacities to address their needs to communicate in minority languages.

2.2 Empowering Capabilities and Technological Capacities
Perspectives in the field of Media Innovation enable a focus on what is changing in processes of innovation, i.e. the ‘processes’, ‘paradigms’, ‘positions’, or ‘products’ that are subject to change (cf. Frances and Bessant, 2005; Storsul and Krumsvik, 2013). They also enable a focus on how these processes of innovations are implemented. In this regard it is maintained that Media Innovations are usually incremental rather than disruptive or radical (cf. Storsul and Krumsvik, 2013). Theories of Social Innovation indicate that a range of skills and capabilities are required in order to successfully
implement these kinds of innovations (cf. Moulaert et al., 2013). Supporting these perspectives with Feenberg’s (2005) theory of instrumentalization facilitates an exploration of the capabilities that are required to decontextualize the capacities for communication presented by media technologies and repurpose these capacities to address social needs. It is through the availability and mobilisation of these empowering capabilities that users can address social needs in media contexts.

Consequently I propose that a second central attribute of Social Media-Innovations is that they require the mobilisation of a range of empowering capabilities in order to instrumentalize the technological capacities the media they concern present, and to repurpose these capacities to address social goals.

2.3 New Constellations of Agents in Hybrid Media Contexts
Theories of Social Innovation propose that new constellations of actors are usually required to address social challenges (cf. Moulaert et al., 2013; Mulgan et al., 2007). Theories within the field of Media Studies further indicate that a range of actors and actants influence processes of media innovation (cf. Westlund and Lewis, 2014). Furthermore, theories in the field of Minority Language Media Studies discuss how non-traditional actors become involved in language planning to support the maintenance of minority languages in media contexts (cf. Pietikäinen and Kelly-Holmes, 2011). However, I argue that these latter theories do not sufficiently interrogate the role of commercial media actors in this regard.

I have discussed how Social Media present hybrid contexts where both commercial and individual actors interact. Consequently, I propose that we need to understand how the ranges of agents that are party to processes of Social Media-Innovation facilitate or constrain them. I also argue that greater transparency is required about how these actors delegate operations to technological actants in order to understand how these agents might influence processes of Social Media-Innovation.

Therefore, I propose that a third central attribute of Social Media-Innovations is that they involve new constellations of agents in hybrid media contexts. I argue that the way in which these agents influence processes of Social Media-Innovation must be interrogated.
Summary

I propose Social Media-Innovation as a generative critical concept. In doing so, I am inspired by perspectives of ‘critical realism’ as developed by Roy Bhaskar (Archer, Bhaskar, Collier, Lawson and Norris, 1998) and the concept of ‘praxis’ as developed by Paulo Freire (cf. Freire, 1970/2005). These theoretical developments call for a critical reflection of current conditions. Importantly, they also call for the implementation of actions, based on these reflections, in order to improve current conditions. I argue that the concept of Social Media-Innovation that I have developed can be used as an analytical tool in other contexts apart from innovations that create new opportunities for minority language use. I maintain that the combination of attributes I have observed in this study are not unique, and that understanding how they are manifest in different contexts could support a broader understanding of how innovations in media could address social needs. I propose the three central attributes that I have identified as an initial analytical framework to support such analyses.

Other examples of Social Media-Innovation might include innovations in participatory community radio (Day, 2008); community television (Higgins, 1999); the localisation of content in Wikipedia (Demeurt, 2014), or practices of digital humanitarianism such as the creation and use of Ushahidi (Burns, 2014). I argue that delineating the concept allows for an analysis of the particularities of these kinds of innovations, and the generation of cumulative knowledge about these. More specifically, it enables an organised approach to identifying how and why innovations of this kind might succeed or fail.

Because modern media technologies are ubiquitous, pervasive and constantly changing, they constrain and facilitate communication and innovation in ways that can be difficult to grasp, let alone understand. I argue therefore that delineating the concept of Social Media-Innovation provides a lens through which innovations that aim to address social needs in these contexts can be analysed. Importantly, I present the tool as both critical and generative, because its ultimate purpose is to support the generation of knowledge that could facilitate innovations that aim to address social problems. In order to do this, the social conditions in which these problems are presented must be critically interrogated.
Concluding Remarks:
In this chapter I have outlined how I developed an appropriate theoretical framework to support the analysis of social innovations in media contexts. I focus in particular on the research questions that relate to this project, which aim to understand how users of minority languages are empowered to create new opportunities to communicate in their languages in Social Media. I discuss the various theoretical concepts and perspectives I employed in order to do this and highlight the requirement to adopt a critical approach to interrogating the discourses of empowerment that surround the introduction of these media. Following Proulx et al. (2011) I argue that this is required in order to differentiate between the ‘capacity to act’ and the ‘power to act’ that these media present. I discuss how differentiating between these two kinds of empowerment is required in order to fully understand how these media may be used to support social innovations.

In the final section of this chapter, I present the concept of Social Media-Innovation as a generative critical concept. I delineate this concept according to three central attributes and argue that these constitute an initial analytical framework that can be applied to understand other similar processes of innovation. This framework informed my own analysis, with particular regard to the implementation of an ethnographically inspired study to understand the needs that minority languages users aimed to address by innovating in Social Media. This also involved an analysis of how the participants instrumentalized the capacities for communication that these media presented. Finally, they informed how I interrogated the way in which the interests of various social and technological agents influenced the potential for user empowerment in Social Media. In the next chapter, I outline the project’s methodological approach.
Chapter Three: Methodology

Try again. Fail again. Fail better. (Beckett, 1983)

Introduction:
The primary goal of this project is to understand how users of minority languages create new opportunities to communicate in Social Media. This involves a study of innovative practices that occur in complex, evolving and dynamic environments. This presents a range of methodological challenges. However, the task of research and researchers is to contribute to a greater understanding of such complex phenomena. This requires reflexivity and flexibility on the part of the researcher. It also requires the implementation of strategies to determine what understandings are required and how these should be achieved. In this chapter, I discuss the main challenges I encountered and the strategies I implemented to overcome them. I conclude the chapter by presenting future-oriented reflections as methodological contributions.

Given the complexity of the object of study, an interpretive methodological approach was implemented. Methods were chosen to iteratively build knowledge about the interactions I wanted to understand, by cumulative practices of observing, relating and understanding. The most significant research paradigm that influenced this project was an acknowledgement of the extent to which knowledge is constructed (cf. Bryant and Charmaz, 2007). This was combined with a critical approach to established theory, with particular regard to interrogating established concepts, positions and paradigms as they relate to users of minority languages (cf. Lane, 2014; Tuhiwai-Smith, 1999).

Acknowledging these paradigms is central to the integrity of this project. I study the interactions of twenty-two minority language users in Social Media. My goal is to understand how they mobilise specific communication capabilities to create new opportunities for language use. My interest in understanding these practices relates to a normative approach and a desire to support the preservation and use of minority languages. The research design is therefore strongly influenced by my background and
experience. I maintain that this increases my interpretive authority, and facilitates a focus on issues of particular relevance to the object that I study.

This chapter is organised as follows: Section One presents the main methodological challenges that involved observing, relating to and understanding the object of study. Section Two presents the strategies implemented to manage these challenges. Section Three presents future-oriented reflections as methodological contributions.

**Section One: Methodological Challenges**

*Observational Remix*

This study explores innovative practices in socio-technical contexts. Consequently, it involves the analysis of a dynamic moving target. I needed to design a research strategy that would enable a meaningful study of this evolving target. In this chapter I discuss how I commenced by initiating an observational study and supported this with additional content and discourse analyses, interviews and fieldwork. Additional methods were integrated to the project design as I realised that I needed to access information in different ways in order to understand what I was observing. I discuss this in detail in Section 2.1 below.

*Relational Ethics*

As an Irish language user, I draw on my own background and culturally situated knowledge about minority languages and their usage. I consider languages to be important cultural resources that signify different ways of understanding the world. I therefore think that they should be protected and maintained. As a result, I have a normative relationship to the object that I study. This influenced how I related to the research participants, with particular regard to participant selection, privacy management and the maintenance of professional boundaries. The way in which these challenges were managed is discussed in Section 2.2.

*Understanding*

Developing a comparative case study approach was considered appropriate to support an exploration of similar phenomena in different contexts. As a member of the Irish language community, my competence to provide a ‘thick description’ of this case is strong. However, due to my proximity to the case, I decided that a comparative case
study design should be implemented, primarily to balance the positioned knowledge my participation would bring about, and to help reveal any analytical ‘blind spots’ that this might cause. Implementing a comparative case design would also enable a deeper understanding of the data analysed in both cases by facilitating a triangulation of the findings generated from different social and cultural contexts (cf. Bryman, 2004; Hantrais, 1996).

This methodological approach had some inherent challenges, particularly in relation to gaining access to the Northern Sámi participants as an outsider to this case, and to ethical considerations about what conducting research in this context implied. These challenges, and the strategies I implemented to manage them, are discussed in Section 2.3 below.

Section Two: Methodological Strategies

2.1 Remixing Observation

Markham (2013) advocates a ‘remix’ approach to methodological design in new media environments. She challenges researchers to reflect on how their methodological choices are driven by underlying assumptions. She uses remix as a metaphor to think about qualitative and interpretive research practice. It describes how aspects of methods can be brought together, and subjected to processes of sense making by a researcher, to support an interpretive goal. The integrity of the remix depends on the extent to which a researcher reflects on the methods used, and interrogates and evaluates their function and effectiveness in realising the goals of a research project. Markham’s remix approach builds on Kincheloe’s (2001, 2005) work on bricolage. Kincheloe argues that rather than relying on a specific methodology or set of methods to produce a solution to a research problem, a researcher needs to accumulate a tool-kit, where each tool is carefully selected to address the problems a specific research context presents.

The requirement to understand socio-technical practices implies the study of two categories of ‘interactive kinds’ as described by Hacking (1999), namely: humans, and technology. The object of study is therefore elusive. Drawing on Geertz’s work on interpreting culture, I developed an approach to address this.
Geertz (1973, p. 10) used the metaphor of intricately interconnected ‘webs’ to describe culture and man’s suspension in it. He argued that the analysis of culture should not be a search for laws but an interpretive analysis in search of meaning. He referred to the complex conceptual structures an ethnographer is faced with in attempting to undertake such an analysis.

Although Geertz’s writing was based on an analysis of culture before the widespread adoption of Internet-based technologies, his metaphor of ‘webs’ provides a heuristic bridge to adapt his arguments to the interpretation of practices in Social Media environments. A ‘thick description’ is required to understand how the evolving socio-technical webs these environments present signify certain potential for action. Understanding this potential for action in the context of this study applies to exploring processes of ‘instrumentalization’ (Feenberg, 2005), ‘domestication’ (Lie and Sørensen, 1996); ‘interpretive flexibility’ (Pinch and Bijker, 2012); and ‘rhetorical closure’ (Misa, 1992). These concepts are central to understanding how capabilities for communication are mobilised in practices of Social Media-Innovation.

I designed a methodology that was influenced by ethnography, and by Markham’s ‘remix’ metaphor, in order to produce this ‘thick description’. This observational remix included an ethnographically informed study that was conducted over eighteen months from September 2011 to February 2013. This was supported by a content analysis of recorded interactions between September and December 2011. Qualitative interviews were conducted throughout the study both in various Social Media platforms and by email. Face-to-face interviews were also undertaken, mostly between December 2012 and February 2013. These methods were further supplemented by two field trips in January/February 2013 (to Kautokeino) and in May/June 2013 (to Tromsø). (See Table One below).

Within this observational remix approach, I tried to be flexible enough to adjust my theoretical focus according to my developing understanding of the object of study. I aimed to achieve this flexibility while also ensuring sufficient consistency to maintain the overall integrity of the research project. I noted my processes of sense making as the project evolved through a combined practice of taking field notes and capturing screen shots of events that were particularly relevant to my enquiries. I evaluated the
methods I was using in practice and where I identified problems or weaknesses, compensated for these by adjusting my approach or selecting and implementing other complementary methods.

In taking an iterative approach to methodological design, this project follows the fundamental principles of Grounded Theory as outlined by Glaser and Strauss (1967). Data was collected over time and organised according to various categories. These categories were constructed as my understanding of the object of study developed. This involved my focusing on particular themes in accordance with what I was observing and with a developing awareness of related theoretical perspectives and concepts.

In discussing Grounded Theory, Bryant and Charmaz (2007, p. 10) outline how data, analysis and methodological strategies become iteratively constructed. Research needs to take account of the specific contexts and positions, perspectives, priorities and interactions of the researchers that drive these processes. To illustrate, certain events occurred during the course of this project that influenced the interactions of the participants, and consequently how I developed an analytical framework to understand them.

For example, during the Irish Presidential Campaign in 2011, the participants discussed the quantity and quality of content in the Irish language that they could access about this debate from traditional media services. Similarly, when Tromsø Kommune22 withdrew its application to be included in the ‘Sámi Language Administrative Areas’, the participants discussed the event, and commented on how the ensuing debate was presented as polarised in mainstream media. These events led me to reflect on the extent to which innovations in Social Media enabled the participants to engage in discussions of relevance to them in their languages. I began to develop analytical themes such as ‘representation’, ‘access’, ‘visibility’, ‘marginalisation’, and ‘innovation’ as a result. These themes focused my search for a relevant analytical framework.

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22 The administrative council in Tromsø, Norway
Importantly, I identified these factors by interacting with the data I collected as a minority language user. I have previously experienced and reflected on these themes and their influence for my own language use. Were I not a minority language user, I may have identified a completely different set of factors to analyse, such as social class, age or level of education. It is not that these factors were not relevant to my study, or related to the analytical themes that I had developed. My point is that I prioritised other themes according to my own understanding of what I was observing. The research design is therefore strongly influenced by my background and experience. I maintain that this increases my interpretive authority, and facilitates a focus on issues of particular relevance to the object that I study.

Table One: The Observational Remix

An ethnographically informed observational study is theoretically suited to observe the practices of minority language users in Social Media. Stewart (1998) points out that there are many different forms of ethnographic research. He maintains that no definition of the method has been universally adopted. For that reason, it could be argued that ethnography is less of a method and more of a research strategy. True to its origins in the field of anthropology, ethnography explores processes of meaning making and worldviews amongst different people and situations. Ethnographic methods have been applied in many different contexts to arrive at ‘thick descriptions’ of human behaviour in cultural contexts.

One of the benefits of implementing an ethnographically informed approach was that it enabled the study to take place over a long period of time. This allowed a combination of other methods, and theoretical analysis, to be implemented concurrently. Another
benefit was that it built up a contextual understanding of the participants’ interactions, and enabled time to interact with users and discuss their practices as they occurred. An added benefit of the screen shots I took was that they captured the changing materiality of the various Social Media platforms over time. This enabled an analysis of how these changes influenced the participants’ capacity to act.

The ethnographic approach had two disadvantages. Firstly, my recorded notes and screen shots could only capture a certain amount of the interactions I was observing. Secondly, I could not understand Northern Sámi. It was therefore difficult to analyse the ‘live’ interactions I observed because they were disappearing from the platforms faster than I was able to establish the development of patterns between them or to construct substantial analytical categories. I therefore decided that I needed to support my analysis with more substantial records than the field notes and screen shots I was gathering.

By creating records of interactions relating to a specific time period, I considered that I could focus on a limited series of interactions and more fully develop the emerging analytical themes. I could also employ a Northern Sámi translator to access content in this language. This gave me greater control over the analytical process while also allowing me to continue the observational study in parallel. By implementing a content analysis, I could study the participants’ interactions in more detail and over a longer period of time, and organise them for analysis according to specific categories.

Gee (2011) maintains that to analyse discourses we need to see what is old and taken for granted as if it were brand new. In this regard, working with records in addition to ‘live’ data allowed me time to reflect on my own implicit knowledge of the object of study. Furthermore, it facilitated my switching between two cases as my understanding of relevant factors developed, and applying realisations acquired in one case to the other. This increased my understanding of how the participants interacted with the various Social Media platforms they used and how these related to the analytical themes I had established. As a result, both the content analysis and the observational study informed each other, and contributed to a greater context-based understanding of the questions I was interested in.
In total, I gathered 1,593 Screen Shots (1131 from the Irish language participants, and 462 from the Northern Sámi participants). These contained data relating to 9,111 unique interactions (5,192 from the Irish language participants and 3,919 from the Northern Sámi participants). I limited the content analysis to a six-week period initially because of the volume of data that I gathered and the requirement to analyse this. I also knew that the observational study would continue in parallel, thereby enabling a comparative analysis between both methods. Although it would have been possible to undertake a second or third round of data gathering during the remainder of the observational study, I decided this was not necessary. This was based on my continued monitoring of the participants’ patterns of interaction during the observational study. As my theoretical focus developed and adjusted, I reverted to the corpus of data I had collected. I was satisfied that no significant developments occurred during the study that required the collection of an additional or different corpus of data.

However, I was keen to test my emerging findings and understandings. I wanted to check the relevance of the issues I was focusing on with the research participants. I did this by engaging the participants in interviews, both in the various Social Media platforms that they used, and in more formalised, semi-structured face-to-face interviews. Qualitative interviews are regularly used as a method in ethnographic studies. They therefore fit epistemologically with the overall methodological design of this research project. It is important to note however that in this study, the interviews were conducted to support the reliability of the observational study and content analysis, rather than as methods to explore additional areas of interest. I wanted to engage the participants in the research process and test my developing understanding and evolving theoretical focus with them. At Appendix One I have included an interview guide for information.

The final method I employed was to undertake two research field trips to North Norway. These trips were necessary in order to gain a broader understanding of Sámi culture and how it was manifest in different areas. The data I gathered during these trips related primarily to a set of field notes based on my observations. These include a range of reflections that contextualised my understanding of Sámi culture. I had no understanding of this culture before I began the research process, and the knowledge I had accumulated during the research process was based on the interactions that I had
observed online, on my interviews with the participants, and on my working relationship with the Northern Sámi translator.

I only undertook field trips in the Sámi case, as I had a sufficient contextual understanding to engage with the Irish language case. As a result, I did not strictly analyse the data gathered, but rather used it to support the development of my interpretation and understanding of the object of study. These field trips caused me to reflect further on the extent of my implicit knowledge in the Irish language case, and on how some aspects of this knowledge were relevant to my analysis. I discuss these aspects further under Section 2.3 below. In this regard, the field trips fulfilled their purpose, ultimately complementing the other methods, and supporting my overall analysis of the object of study.

**Building a Theoretical Model**

At the outset, I knew that the object I wanted to study was minority language use in Social Media. However, I was not sure of the specific theoretical framework that I would apply, or of how the focus of the research would develop. As a result, the data collection process was mostly informed by my initial research interest. The analysis evolved according to a developing theoretical sensitivity, and to an iterative process of open coding, followed by the construction of theoretical categories (Glaser and Strauss, 1967). This iterative process ultimately resulted in the refinement of the project’s overarching theoretical framework and related research questions.

The initial analytical themes that I had identified during the observational study informed the open coding of the data gathered for the content analysis. The open codes related to: a description of the interactions observed according to platform and genre; a description of the theoretically informed factors of relevance to the interaction (including innovation, participation, privacy, marginalisation, motivations and discourses referred to); and a record of the range of languages featured. The content analysis facilitated and incorporated a critical discourse analysis, where the participants’ interactions were analysed. This focused on how these interactions related to discourses of empowerment. This in turn supported the construction of evolving theoretical categories.
I explored relevant theoretical perspectives while implementing the observational remix I have outlined. This informed how I categorised and analysed the data. The initial themes were refined to open coding categories, theoretical categories and finally to concepts. Where I was faced with new perspectives and observations, the way in which these related to the overall theoretical framework was noted. This brought about a further refining and focusing of the analysis. Where relevant, the framework was consequently refined or refocused.

I used excel sheets to organise this process. I found excel sheets sufficient to support my iterative approach to developing and addressing the research questions, although it also had the disadvantage of being quite slow and cumbersome. Ultimately, however this led to a close familiarity with the data that I had gathered.

Jensen (2012, p. 269) maintains that in this sense, the qualitative research process: ‘amounts to a continuous operationalization of categories and concepts with reference to several strategies of analysis and, often, several contexts of evidence.’ Sampling for a particular category ceases when saturation is achieved. However, saturation is only a decision-point that sufficient information has been received with regard to a particular category. Only when the entire theoretical model is complete, does the overall sampling process cease. In the case of this study, the entire theoretical model was completed after the observational process ceased. It was constructed based on the data gathered as a consequence of the methodological approach. This included field notes, records of interviews, and screen shots of specific interactions. The emergent theoretical model ultimately indicated that I had sufficient data to address the research questions that I was aiming to answer.

An Example of Coding in Practice:

During the initial observational study, I became aware that one ‘new’ or ‘different’ aspect of Social Media was that platform interfaces could be localized to a range of languages. In Facebook, it was possible to use both an ‘Irish language’ and ‘Northern Sámi language’ version of the interface. These localized interface options were the result of crowdsourcing projects facilitated by Facebook (for more information see Lenihan, 2014). This was promoted by the Norwegian Sámi Parliament through its Facebook page during the study. I captured the following Screen Shot and coded it
according to the initial themes I identified:

**Table Two: Coding Example Part One**

<table>
<thead>
<tr>
<th>Data</th>
<th>Code: Focused Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="translation.png" alt="Translation" /></td>
<td><strong>Media Innovation: Access</strong></td>
</tr>
<tr>
<td><img src="media_innovation.png" alt="Media Innovation" /></td>
<td><strong>Social Innovation: Language Maintenance</strong></td>
</tr>
</tbody>
</table>

Translation: A ‘Friday hint’ from the Sámi Parliament: Did you know that you can use Facebook in Northern Sámi? If you download the Translation programme you can use the site in Sámi, and participate in the translation project if you wish. Have a good weekend!

I wondered how this localization capacity influenced the creation of new opportunities to communicate in minority languages. In particular I wondered how this ‘Media Innovation’ influenced the participants’ communication needs in terms of ‘accessing’ opportunities to communicate in minority languages, or ‘reaching’ other users in order to do this. I initially discussed this with the participants during online interviews:

**Table Three: Coding Example Part Two**

<table>
<thead>
<tr>
<th>Data</th>
<th>Code:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interview Question:</strong> ‘Hi (Name)! Do you use Facebook in Northern Sámi? If not, what language do you use and why?’</td>
<td>(Driven by the Focused Theme codes identified above)</td>
</tr>
<tr>
<td><strong>Reply (T:NS):</strong> ‘I use Facebook in English - though I think I tried it out in Northern Sámi once, but that lasted about as long as the phase of trying the upside-down English did (maybe a day, no longer). I use it in English, and have done so pretty much since I ended up on Facebook (at some point in 2007), mostly because at that point I had been...’</td>
<td><strong>Platform: Facebook</strong> <strong>Genre/Capabilities: Use of Social Media informed by previous use of Internet</strong></td>
</tr>
</tbody>
</table>
active online for over ten years, and most of my communicating happened in English (I was a very active blogger from 1999-2008'ish), and so I still feel like the internet should be in English.

At this point I'm so used to it that I get annoyed when websites autodetect my location and send me to Norwegian translations (especially because they're sometimes really bad, or have missed out on a lot of translation, so the webpages end up in a crazy half-and-half).

The responses I received provided more detail about the way in which the participants interacted with the ‘innovation’ I had observed. The potential to localize the interface language to Northern Sámi was not considered relevant to this participant’s communication needs. This related to their previous experience, or the ‘capabilities’ that they had developed, using the Internet to communicate. On the basis of this experience, they considered the Internet to be a predominantly ‘English-language’ arena. The response received enabled me to refine the initial themes that I had identified to more substantial coding categories. These in turn facilitated the construction of qualitative interview questions\textsuperscript{23}, such as:

1. What do Social Media mean to you? In particular, what do Social Media mean to you with regard to using the (insert) language?
2. How do you use Social Media?
3. Do you think Social Media change anything in your life, in particular when it comes to Irish/Sámi language use?
4. Do you participate in any specific groups/projects (because they are in Irish/Sámi)?

Testing these initial findings during qualitative interviews revealed further nuances in the participants’ approaches to communication. The following data extract relates to an interview with one of the participants in the Irish-language case:

\textbf{Table Four: Coding Example Part Three}

<table>
<thead>
<tr>
<th>Data</th>
<th>Code: Theoretical Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher: With regard to the Irish language, or the potential to</td>
<td>Capacities versus Capabilities.</td>
</tr>
<tr>
<td>use Irish in Social Media, do you notice any difference?</td>
<td></td>
</tr>
<tr>
<td>(F:I) Response:</td>
<td></td>
</tr>
<tr>
<td>No I don’t notice any difference. I don’t experience any major</td>
<td></td>
</tr>
<tr>
<td>constraints. I don’t need the furniture to be in Irish.</td>
<td></td>
</tr>
<tr>
<td>Researcher: Hm?</td>
<td></td>
</tr>
<tr>
<td>Response: It would be nice. But sometimes the</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{23} I have included a sample Interview Guide at Appendix One.
Irish in those things is kind of, hard to understand.

Researcher: Mmhm. What things are you talking about now?

Response: You know. You know the furnit- you know the messages.

Researcher: That the, the sort of, programme itself would be in Irish?

Response: Yes. Its fine if it is or if it isn’t. I don’t care. But just sometimes its hard to understand the Irish, em, because the language is kind of technical, the word I use is ‘literal’ instead of ‘literary’ if you know what I mean.

Researcher: Yes. Exactly. For example ‘Is maith liom é?’ (The Irish language translation of the ‘Like’ button).

Response: Yes.

<table>
<thead>
<tr>
<th>Irish in those things is kind of, hard to understand.</th>
<th>Agents, Agency Causality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher: Mmhm. What things are you talking about now?</td>
<td>Discourses of Empowerment</td>
</tr>
<tr>
<td>Response: You know. You know the furnit- you know the messages.</td>
<td></td>
</tr>
<tr>
<td>Researcher: That the, the sort of, programme itself would be in Irish?</td>
<td></td>
</tr>
<tr>
<td>Response: Yes. Its fine if it is or if it isn’t. I don’t care. But just sometimes its hard to understand the Irish, em, because the language is kind of technical, the word I use is ‘literal’ instead of ‘literary’ if you know what I mean.</td>
<td></td>
</tr>
<tr>
<td>Researcher: Yes. Exactly. For example ‘Is maith liom é?’ (The Irish language translation of the ‘Like’ button).</td>
<td></td>
</tr>
<tr>
<td>Response: Yes.</td>
<td></td>
</tr>
</tbody>
</table>

This interview extract supported the further development of coding categories established through earlier methods. It reveals that the capacity to translate and use Facebook in Irish does not influence how this participant communicates. It also provokes the related question of what kinds of agents are involved in these crowdsourcing processes, and what kind of language they use. For example, it provokes the question of what the role of the Norwegian Sámi Parliament might be in this kind of process. In the current example, the participant notes that what they consider to be ‘literal’ translations implemented in these contexts can often be technical and difficult to understand.

This points to further theoretical questions about the discourses of empowerment that surround Social Media and the extent to which a particular technological ‘capacity’ might be able to ‘cause’ or influence the use of a certain language. It also points to related theoretical questions about linguistic standardisation and how these processes might include or exclude particular language users (cf. Lane, 2014).

These examples show how the implementation of the observational remix methodology supported the development of coding categories from initial open themes to more focused theoretical concepts. This process involved the implementation of different
methods, and a developing theoretical sensitivity in relation to the data that was being gathered.

A final observation about the coding process relates to how I analysed elements of the data I had gathered that did not obviously fit within the theoretical framework I was constructing. This initially led to the construction of additional codes, and the consequent expansion of the theoretical model. However, over time, all of the codes were assimilated to analytical categories and ultimately to theoretical concepts. During this process, I interrogated data that did not ‘fit’ within the model to determine whether it provided additional insights of relevance to the project, or whether it should be discarded. This iterative coding process ultimately led to a high level of familiarity with the data I had gathered and facilitated the final analytical process. A summary of the coding template applied during the project is included at Appendix Two.

**Socio-Technical Observation**

Engaging with a Social Media platform through its interface, a researcher is presented with a range of user interactions, sorted according to genre, time and other considerations. However, two important elements of these interactions are obscured. The first is the technological process through which they are presented. The second relates to the extent to which they are tailored and constructed for individuals.

With regard to the first challenge, it could be argued that researchers should open up the ‘black box’ of Social Media technologies to examine the ways in which their underlying codes, algorithms and protocols are constructed and observe the mechanisms by which they influence communication practices. However, given the proprietary nature of the structures behind some of these services, and the fact that they are constantly evolving, obtaining such an understanding may be restricted by company policies. It might also result in findings that only apply to a particular phase in technological design (see also Bücher, 2012 in this regard).

While this kind of research is required, in this study I prioritised investigating how Social Media platforms are fundamentally constructed in order to understand their principal objectives in supporting user practices. In order not to make assumptions about how and why technologies worked in a particular way, I read secondary material
relating to their functionality and purpose. These included technological and policy documents that outlined the structure of these platforms and were updated throughout the project. I prioritised exploring how these platforms facilitated the participants’ capacity to act, and how this in turn influenced their power to implement processes of Social Media-Innovation.

Observing the participants in this study through my own profile limited the nature of understanding that I could produce. As a consequence of personalisation, the interactions a user of Facebook, Twitter, or a Blog accesses are based on their own networks of connections, previous interactions, and specific content (such as advertising) that platform providers have tailored for them. As a result, in spite of the fact that the central elements of each interaction remain intact, the order in which the interactions are presented, and the multimodal data that surrounds them, will not appear in the exact same way in any two users’ web browsers.

It is consequently important to recognise that what I observed through my own Social Media profiles was determined and complicated by a specific set of algorithms and content management systems tailored to my previous use of these platforms. In order to compensate for this to the greatest extent possible, I visited the profiles of the participants and recorded interactions from these on a weekly basis. I did this to minimise the interference of other elements related to my personal profile in the analysis of the participants’ interactions.

Informed by the theoretical framework I have outlined in Chapter Two, I analysed how the participants instrumentalized technological capacities for communication to create new opportunities to use their languages. I focused on the innovative practices I observed, whether these involved creating tools to encourage and facilitate minority language use; participating in crowdsourcing projects to translate interfaces; or actively generating new contexts in which language use was relevant. I observed how evolving genres of technological capacities, such as Status Updates, Wall Posts, Page Likes, Photo Comments, Tweets, Retweets, Hashtags, Blog Posts and Blog Comments, signified different capacities to act (cf. Proulx et al., 2011) depending on the

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24 Challenges relating to the relational aspect of this study are discussed in detail in Section 2.2 below.
participants’ understandings of the contexts in which they encountered them.

I also observed how processes of technological standardisation influenced the participants’ interactions (cf. Latour, 2005). As I have previously discussed, in the case of Social Media, the influence of standardisation is complicated by the extent to which a large part of the functionality of these technologies consists of connecting third party (mobile) devices, external information, and connectivity via a range of infrastructural protocols and situations.

Acknowledging that the contexts in which users interact are linked to broader flows of information, I observed the range of ‘external’ content the participants interacted with. These included hyperlinks to news articles or other external websites, comments on photographs from particular events, comments on ongoing news issues, use of hashtags or twitter handles to identify other users to communicate with, access to machine translation tools like Google Translate etc. The participants interpreted and negotiated the relevance of this content as they interacted with it.

**Screen Shots as Data Records**

The final challenge that related to the observational remix I implemented concerned how I recorded data. I wanted to capture both the material and social aspects of the data I was observing. As a result, I chose to capture data in Screen Shot format. This had some advantages. The Screen Shots were taken through my own interface. They demonstrated the capacities for communication that the participants appropriated. This would have been similar in both my own and the participants’ interfaces.

Consequently, I could see the kind of interaction a participant was engaging in (i.e. a Status Update, Wall Post, Tweet or Retweet); I could see who they were interacting with, and how many people were actively engaged in these interactions (through likes, comments, and use of Twitter handles); I could establish what they were responding to (by following the threads of interactions); and could record where and when specific languages were used, or changes in language use were brought about. I could therefore analyse the aspects of these interactions that were of relevance to creating new opportunities for language use.
The major disadvantage to collecting screen shots was the fact that the data gathered could not be further manipulated. A screen shot is an image, rather than a text based file that can be converted and manipulated by other programming or coding tools. Text-based files would also have enabled the efficient manipulation and organisation of the data using programming languages such as Python. However, using automated software to support data analysis requires decisions to be made to structure and reduce the data into specific analytical categories. Had I created a Python script to record data from the Facebook interface, I would have had to limit the focus of my analysis to specific categories. Although I would have been able to adjust this script and collect more data, I decided that focusing my analysis too early in the research process might unduly restrict the data I accessed.

Given the exploratory and iterative nature of the research I was undertaking, I decided that a ‘slow research’ process would give me more contextual information about the participants’ interactions, and would enable the focus of my analysis to develop over a longer period of time. I also considered this approach to be appropriate given the sensitivity of some of the issues I was exploring as they related to minority communities, and the privacy of research participants (discussed under Section 2.2 below).

2.2 Relational Ethics

Participant Selection

To address the research questions, I needed to recruit participants that actively used Irish and Northern Sámi in Social Media. As I was interested in how practices of Social Media-Innovation occurred in these environments, I also wanted to recruit participants that engaged with various capacities for communication in a variety of ways. Jensen (2012, p. 268) states that qualitative sampling is driven by a purpose, rather than by a principle of probability. Furthermore, qualitative sampling should be driven by the conceptual or informational needs of a particular study. I therefore wanted to recruit people who used different Social Media platforms, and who used different capacities for communication within these.

I was not concerned with where participants were geographically located or what their socio-demographic backgrounds were. In spite of this, I ultimately recruited
participants in both cases from a range of different age groups, living in a variety of countries, and with different occupations. Furthermore, I did not sample according to categories of linguistic competence (for example, learner, native speaker etc.). This decision rested mainly on the practical difficulty of ascertaining this information from the Social Media profiles of potential participants. I also consider this kind of categorisation to be fundamentally problematic because it is difficult to establish firstly, how the categories are constructed and operationalized, and secondly, an essential relationship between a particular language user, or group of users, and a given language (see also Pietikäinen and Kelly-Holmes, 2011; Weber and Horner, 2012).

Indigenous Tweets provides a listed directory of indigenous and minority language users on Twitter (www.indigenoustweets.com). Given the open nature of the Twitter platform, I used this platform and the Indigenous Tweets site as a starting point to identify participants. When I started the study, 861 Irish language users, and 59 Northern Sámi language users were listed as having ‘public’ Twitter accounts (Scannell, 2014d). The number of Irish language users has since increased to 7,426, while the number of Northern Sámi users has doubled to 156 (Scannell, 2014d). For a detailed discussion about how the Indigenous Tweets directory is constructed, see Ní Bhroin (2015a).

In the Irish language case, I identified and recruited ten participants through the Indigenous Tweets site. Eight had Facebook accounts, and six had created their own blogs and actively maintained them. During the course of the study, I identified two additional participants that were relevant to my analysis and recruited them to participate. Because less Northern Sámi users were active on the Twitter platform I could not use the same method to identify participants as I had in the Irish language case. I recruited five willing participants initially from the Twitter platform. These all had Facebook accounts and two had created blogs that they actively maintained.

To recruit additional participants I requested assistance from my Northern Sámi translator, who identified a number of potential participants from her own network. These used the Northern Sámi language actively in Facebook. Three of these were willing to participate in the study. I identified a further two participants through interactions with these participants during the course of the study. Thus the sampling
process involved the recruitment of third-party participants according to a snowball sampling method (cf. Jensen, 2012, p. 270). I discuss some of the implications of this approach for third parties to the research process in Section 2.3 below.

Table Five below provides an overview of the participants selected, by platform and by case. In order to protect their privacy, they are referred to throughout this study with reference to an altered first initial only.

Table Five: Participants by Platform and by Case

<table>
<thead>
<tr>
<th>Facebook</th>
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<td>H</td>
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<table>
<thead>
<tr>
<th>Twitter</th>
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<tbody>
<tr>
<td>B</td>
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<table>
<thead>
<tr>
<th>Blog</th>
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<td>T</td>
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</tbody>
</table>

Two participants created applications to interact with Social Media platforms. Other participants, through their construction of blogs, their involvement in crowdsourcing projects to translate the Facebook and Twitter interfaces, or their creation and administration of groups and lists, were also involved in a variety of ‘actor roles’ apart from the creation of and engagement in interpersonal interactions (Bechmann and Lomborg, 2012)

These practices signify different levels of engagement with and use of Social Media technologies. They also support an exploration of the conditions for empowerment in different contexts of minority language use in Social Media.

Relational Integrity

Having selected the participants I wanted to include in the study, the next challenge related to how I would relate to them during the research process. Discussing the study

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Bechmann and Lomborg (2012) have developed a scheme for categorising ‘actor roles’ in Facebook.
of life online, Markham (2008, p. 250) states that: ‘the traditional challenge of understanding the other-in-context is complicated by the blatant interference of the researcher in the frame of the field and by the power of the researcher in representing the culture.’

When recruiting participants to the study, I obtained their prior written consent in accordance with the relevant legal and ethical requirements. I explained the goals of the research process to them. To understand how their practices of Social Media-Innovation might be facilitated or constrained, I needed to gain access to the various social networks in which they were involved. This included following their blogs, their Twitter accounts and becoming their ‘Friend’ on Facebook. In each case, the participants had the option to manage the degree of access they provided to me, including not providing access at all. Establishing a connection with participants on Facebook presented a particular challenge with regard to maintaining professional boundaries around my role as a researcher.

By becoming a ‘Friend’ of the participants, I gained access to their interactions in Facebook. Although the ‘Friend’ connection signifies a particular kind of relationship, I was satisfied that the professional nature of my relationship to the participants had been established. In the written consent form I provided, I had outlined the objectives of the study. I also declared myself as a researcher on my Facebook profile.

In spite of these measures, the ‘collapsed contexts’ (Marwick and boyd, 2011) of interactions in Facebook resulted in a situation where I had access to personal information about my participants. In order to construct a reciprocal relationship, I provided the participants with access to my personal profile. Although it could be argued that this blurs the distinction between my professional role as a researcher and my potential relationship as a ‘Friend’, I argue that this is not the case. Following Agar (1996), and Powdermaker (1966) I maintain that ethnographic research has always been conducted by building relationships between researchers and participants in evolving social contexts. In order to establish and maintain the boundaries of these relationships, strategies must be adopted that are specific to the contexts in which the research is occurring.
One strategy I employed to reinforce professional boundaries was to engage the participants in interactions about the research project. I contacted the participants at regular intervals to conduct email interviews, or to discuss issues of relevance with them. I also posted information that related to the subject of minority language use on my Facebook and Twitter profiles. In addition to maintaining the distinction of our relationship, these strategies also facilitated intersubjective reflection about the issues I wanted to explore (cf. Jensen, 2012).

An alternative strategy to maintain professional boundaries might have been to create separate Facebook or Twitter accounts and manage the research process through these. However, this would ultimately have jeopardised the privacy of the participants. I did not want the participants to be directly linked to the research project in a way that would reduce their anonymity. By connecting them to a particular research account, it would have been possible to determine their involvement with the project. Secondly, I did not want the participants to be aware of the other participants that were involved in the study. I managed this more successfully by establishing connections through my own profile.

Given that the participants are spread across different locations in six countries, it would not be possible for me to observe their practices in a more efficient way. I regularly checked into all of the various Social Media sites the participants used (on a daily basis) and observed the interactions that they had been involved in. I also checked the profiles of individual users on a weekly basis in case my time-specific and algorithmically manipulated feeds had not displayed their interactions.

Another strategy I employed to ensure that I did not unduly encroach on the privacy of the participants was to focus on interactions that were relevant to my research objectives. I did not observe the content of private or direct messages or chats. I also discarded data that I did not consider relevant. As the focus of my inquiry developed, the amount of data I discarded increased. Following Nissenbaum (2011) I ensured that I respected the contextual privacy of the interactions I observed. At the same time, the dynamic nature of the environments in which we were interacting meant that this relational aspect of the project had to be continuously managed.
One final strategy I implemented was to specifically discuss strategies of privacy management with the participants. This enabled me to understand what was important to the participants and how I could manage my own actions in relation to this. Apart from this, I ensured all the data I interacted with, collected and recorded was securely stored and destroyed once it was no longer useful.

Third Parties:
A further challenge with regard to relational ethics, in the context of ‘networked privacy’ (cf. Marwick and boyd, 2014), arose during the study. This related to how third parties were implicated in this research process. I have included an article on this topic in the second part of this dissertation (Ni Bhroin, 2015b). The challenge relates to the fact that the current European legislative requirement to obtain informed consent in advance of data processing does not sufficiently protect third parties during the research process. Given the dynamic nature by which interactions in Social Media occur, it is impossible to determine in advance what third parties a researcher will encounter.

Therefore, I established two categories of participants. The first ‘core participants’ were the participants that I had identified as relevant to the study, and from whom I had obtained prior written consent to include in the study. A second category of ‘ancillary participants’ emerged through interactions with these participants. The ancillary participants remained for the most part outside of the scope of my research interests. Where a particular interaction that involved an ancillary participant came within the scope of the research project, I contacted these participants and asked for their consent to process this data. This occurred in two instances in both the Irish and Northern Sámi cases. The ancillary participants in question were recruited as ‘core participants’ and the study continued.

Relational Language Use
I could not interact with the participants, or question them about their practices, in the Northern Sámi language. In this regard, it is important to note that, with most participants, the majority of their interactions were in Norwegian or Swedish. Furthermore, where the Northern Sámi language was used, it was usually in a multilingual context or interaction, where it was possible to make sense of the key elements of the discussion.
As discussed, I employed a translator to support my understanding of interactions recorded during the content and discourse analysis. Outside of this time period, where I understood multilingual interactions to be particularly relevant to the study, I used an online translation tool (Giellatekno.uit.no) to determine what they meant, and tested these interpretations with the participants where relevant. This strategy worked relatively well in the case of Facebook. Less Northern Sámi content was written in Twitter and as a result it was not as problematic. Observing interactions in blogs could have been difficult in this regard, however, only one of the participants wrote a blog in Northern Sámi. As a result, I decided to limit my analysis of this blog to the period of the study where I had access to a translator.

The interactions I engaged in with the participants were either reactions to issues that I observed ‘live’ in the observational study, or related to questions that occurred to me as I was analysing the data gathered. For example, one participant stated in Twitter that she intended to write cryptic tweets in Northern Sámi, rather than in Norwegian. This led me to reflect on the various audiences the participants imagined they were interacting with in Social Media, and I questioned the participant about this in a ‘live interaction’ situation. I also asked the participants to reflect on what Social Media meant to them while interacting with them through private messages or direct mail in the various platforms they were using. I also employed this kind of interviewing strategy to question participants about their use or non-use of various Social Media platforms.

I did not employ a translator to conduct research interviews. This was because I considered that it would disrupt the flow of conversation, particularly when both parties to the interview could communicate in either English or Norwegian/Swedish. Kvale and Brinkmann (2009, p. 54) note that it is important to recognise the extent to which the knowledge produced by interviews is constructed, relational, conversational, contextual, linguistic, narrative and pragmatic. The participation of the researcher and interviewee, the specific contexts in which the interviews take place, and the interests of

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26 The 'Indigenous Blogs’ tool (www.indigenousblogs.com) gathers information about blogs in indigenous languages on blogger and Wordpress. It lists a total of 20 blogs in Northern Sámi. The participants also revealed a general perception that there are not many blogs written in this language.
the researcher all influence the kind of knowledge that transpires from the situation. As a result, it is important to state that the researcher retains a significant amount of power in an interview situation, particularly with regard to the way in which knowledge is prioritised and obtained. I conducted interviews throughout this project based on an awareness of this fact.

In an ideal world, I would have conducted the interviews with the Northern Sámi participants in this language, particularly as I was able to do this in the Irish-language case. However my lack of understanding of the Northern Sámi language restricted this. This specific kind of cross-cultural interviewing raised some interesting dilemmas for me. I had the option of conducting these interviews in English or in Norwegian. As one of my first languages, English would have been the most comfortable option for me. However, I did not think that this would be the case for my participants. Having lived in Norway and spoken Norwegian every day for two years at the time these interviews were conducted, I was secure enough in my competence using this language, however I knew that I might miss out on some idiomatic expressions, or could have problems with very strong dialects and accents.

In an attempt to rebalance the power relations in the interview situation in favour of the interviewees, I undertook the interviews in Norwegian. Some of the participants would have been perfectly capable of interacting with me in English; however, I decided that a uniform approach should be taken to the entire Northern Sámi case. As it transpired, the interviews were conducted without any problems of understanding. My decision did however lead to an ironic situation where I was conducting a research project about minority languages with participants who spoke these languages while interviewing them in a majority language. I am however satisfied that my decision in this regard led to the best balance of linguistic power that was achievable, given the circumstances.

2.3 Understanding

The Politics of Knowledge

It is important to note my role and power as a researcher in pursuing the interests that I developed during the research process. These developed by interacting with the participants and data, and accessing various theories relating to what I observed. My background as a member of the Irish language community influenced my observations,
interpretations and understandings. As a result, these are not the only interpretations a researcher could arrive at from the data I observed. Consequently, I needed to implement strategies to manage the power I exercised over the research process.

The anthropologists Thomas Hylland Eriksen (2010), and Michael Agar (1996) argue that researchers studying their own societies require a particular form of reflexivity to understand their position as both researcher and participant. This is because intellectual and professional engagement are usually linked to political and moral convictions on the part of the researcher. In order to reveal my implicit political and moral convictions, and to expose any analytical blind spots this might generate, I decided to introduce a second case to my research design.

I chose to limit the study to two cases because acquiring an in-depth interpretive analysis of numerous unfamiliar cases comparable to my understanding of the Irish case would not be achievable within the scope of a PhD project. The second case chosen was the Northern Sámi case. The reasons for selecting this case were linked to my relocation to Norway, where the Northern Sámi language is a regional minority language, and to the way in which the cases compared across analytical categories. A more detailed discussion of the comparative contextual background to both cases is provided in Chapter One.

Choosing to analyse broadly similar cases enables the focus of the research to be directed at the specific situation these cases interact with, and facilitates theoretical development (Bryman, 2004, p. 53). There are some key differences between the cases I selected, with particular regard to the status, size and structure of the language communities, and the extent to which they have had access to opportunities for mediated communication. These differences support a comparative exploration of how the specific situation that they are faced with – i.e. creating new opportunities to use these languages in Social Media, is manifest in different socio-cultural settings.

Some of the issues that I identified in my observations of one case informed how I analysed the other case. For example, when conducting the content analysis, and tracking the hyperlinks posted in the interactions posted by the Northern Sámi participants, I noticed that these included the redistribution of or reactions to other
media content. The participants usually took a critical stance to this content. In particular, they challenged the simplified and stereotypical representation of their community in various media articles and programmes. This focused my attention on the conditions of representation experienced by the participants, and led to the development of the overarching theoretical category of ‘access’, which was then analysed in both the Irish and Northern Sámi cases.

A second strategy was to engage the participants in interviews, both in the various Social Media platforms that they used, and in more formalised, semi-structured face-to-face interviews. I was particularly concerned with the extent to which the theoretical framework I was developing was of relevance to the participants, and whether they agreed with the interpretations and analytical conclusions I was working towards. To this extent, my intention was not to undermine my interpretive authority as a researcher, but to test the extent to which it appeared valid in the eyes of the participants. Where this raised concerns, I reviewed my approach.

Jensen (2012, p. 364-366) discusses how the standpoint of the researcher affects not only what objects of study are chosen, but also how participants are selected, how access to these participants is gained, how data is collected and processes of analysis are influenced and, the extent to which participants can interact with the study. I aimed to facilitate intersubjective reflection and discussion throughout this project, by sharing my findings with the research participants as they evolved, and disseminating the research where possible in situations where minority language users could access it. Jensen (2012, p. 319) states that such practices strengthen the integrity, and therefore the validity, of researchers’ findings. Intersubjective reflection also enables those being studied to exert a degree of influence on the research agenda. As discussed further below, this is particularly important when studying minority groups.

A third strategy in this regard was to undertake field trips to North Norway to gain a contextual understanding of issues of relevance to the Northern Sámi case. These enabled further reflections on the extent of my implicit knowledge in the Irish language case, and on how some aspects of this knowledge were relevant to my analysis.
Understanding Access

Less Northern Sámi users were active on the Twitter platform than in the Irish case. This related to the size and structure of the community but also to the historical development and perceived relevance of the written standard for this language. It was consequently difficult for me to identify suitable participants to recruit. These difficulties were not helped by my position as an outsider to this community.

In the Irish language case, nearly all of those I contacted expressed an interest in the study and agreed to participate straight away. However, in the Northern Sámi case, I sent out five times as many requests to participants and only initially managed to secure five willing participants. Although an outsider to the language community, it was difficult for me to understand the low response rate, particularly as I considered that, as a fellow minority language user, the Northern Sámi language users would understand my motivations in undertaking this project. However, in working with my translator, and in subsequent discussions with members of the Sámi community and reading of related research (cf. Hovland, 1999; see also Tuhiwai Smith, 1999), I became aware of a cultural resistance and scepticism on the part of this community to participate in research projects.

In his study of ethnic belonging amongst Sámi youth, Hovland (1999, p. 39) discusses this scepticism. It is related to ethical concerns arising from previous research processes, about external objectification, the imbalance of control, and the implementation of projects that were of unclear or no benefit to the Sámi community. These issues were compounded by more controversial and invasive projects such as unauthorised grave excavations and genetic research. My understanding in this regard was increased by references to grave excavations and genetic research that were made by the participants in Social Media following the broadcast of an NRK Brennpunkt programme entitled ‘Førsteretten’ (First Right).27 This programme discussed how land ownership rights were contested between various interest groups within the Sámi community.

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27 This programme was first broadcast on NRK on 15 November 2011.
Hovland states that this debate is localised in a global discourse about ethical research amongst indigenous people. Tuhíwai Smith (1999, p. 3) for example points out that she often heard representatives of indigenous communities claim that they were ‘the most researched people in the world.’ She notes that the truth of these claims is not important. Instead, the sense of weight and unspoken cynicism this kind of message conveys must be taken seriously. The Sámi parliament, in their research policy, state that research should: ‘contribute to the strengthening, protection and development of the Sámi community.’ (Hovland, 1999, p. 40). The Norwegian National Committee for Research Ethics in the Social Sciences and the Humanities (NESH) has also developed guidelines for conducting research that relates to the Sámi community, in cooperation with members of this community. These provisions are in line with Tuhíwai Smith’s (1999) arguments in terms of the requirement to decolonise methodologies, in order to allow indigenous communities to speak for themselves and for their own knowledge to be protected and valued. Although I believe that my research is ethical and in line with the Sámi parliament and NESH’s policies, my good intentions alone were insufficient to overcome the barriers that related to my position as a researcher coming from outside this community.

A further event that occurred during the research process revealed exactly how important it is to be clear about one’s ethical position in advance of conducting a research project. In December 2012, NRK Sápmi interviewed me about this research project. The interview was broadcast on radio, published on the Internet and Tweeted on Twitter. This interview resulted in a strong reaction from two members of the Sámi community who opposed my conducting this research project on the grounds that I was an outsider who did not speak the Northern Sámi language.

A debate ensued where a specific concern was raised about the extent to which I would quote from individuals’ conversations without their consent. In this regard, I was able to clarify that this would not happen, and that I had obtained permission from all participants in the study in advance of commencing the research project. However, the concerns raised, and the manner in which they were raised, reveals a particular pressure point in terms of interacting with members of communities that are external to one’s own. These concerns often relate to the power of representation and definition, and the objectification of particular cultures that has historically been conducted by external
researchers (cf. Tuhiwai Smith, 1999).

These experiences strengthened my understanding of some of the issues that the Northern Sámi language community had faced, in particular in terms of marginalisation and the potential for empowerment. This increased sensitivity influenced my further interactions with members of this community throughout the research project. I was particularly conscious of my power as a researcher in the representation of the participants in the study and monitored my interactions to mitigate against unfavourable processes of external objectification. Tuhiwai Smith (1999, p. 9-10) argues that researchers working in indigenous contexts should ask themselves the following questions:

‘Whose research is it? Who owns it? Whose interests does it serve? Who will benefit from it? Who has designed its questions and framed its scope? Who will carry it out? Who will write it up? How will the results be disseminated?’

She also adds that what may appear to be the ‘right’ or most desirable answer to these questions is contextually determined, and therefore can be judged incorrect. I was careful to keep these questions in mind as I implemented this research project. I consider that my focus on exploring practices of Social Media-Innovation in order to support the creation of new opportunities to use Northern Sámi positively addresses these concerns. At the same time, I determined to increase my contextual knowledge of the Northern Sámi language and the context in which it was used, in order to further ensure that the process of research remained within ethically appropriate boundaries.

Understanding Context:

A significant strength of using an observational method was the extent to which it facilitated my developing awareness of the broader contextual issues that were relevant to the participants. I gained this through observing the topics they discussed during their interactions, but also through following the hyperlinks to additional information, news stories, websites and photographs that they posted. I began to figure out the media outlets that were of relevance to them, such as NRK Sápmi, Oddasat, Nordlys, Finnmarken, and to a much lesser extent, the Sámi newspapers Ságat and Ávvir.28 This method was employed in both language cases. The participants’ interactions with these

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28 A more detailed discussion about media outlets is included in Chapter One.
media revealed that they reacted to and challenged negative or stereotypical portrayals of their community, or praised what they perceived as positive representations. I observed how they used Social Media as a channel to express this.

Other contextual information related to the history of the Sámi community. Hyperlinks to blogs revealed stories about how Sámi children had been taken from their parents and sent to boarding school to be ‘norwegianised’, and to learn to speak Norwegian. Use of the Sámi language in these schools was forbidden and punished. Other links to documentary programmes broadcast by NRK such as ‘Vendepunktet - Miljøkampen som ble urfolksak’ (The Turning Point: The Environmental Struggle that became an Indigenous Case), also provided contextual information about the Alta Conflict and important figures that participated in this. These include Ole Henrik Magga (who became president of the first Sámi Parliament in Norway and is now a professor at the Sámi University College in Kautokeino) and Asta Balto (an assistant professor at the Sámi University College in Kautokeino).

Working with a translator also supported my increased understanding of Northern Sámi culture. We met weekly to discuss the translations, and contextual issues relating to them. I would not otherwise have had access to this contextual understanding. I also began to figure out the Sámi cultural and political institutions that were important to the participants, and to find out what their functions were. Examples included the Giellatekno Centre at the University of Tromsø, the Sámi University College in Kautokeino, the Sámi Parliament in Karasjok and a number of Sámi youth organisations. I later designed my field trips to enable visits to these institutions.

I organised field trips in 2013 to coincide with the end of the ‘dark period’ in Kautokeino in January/February (where the sun doesn’t rise), and with the period of the midnight sun in Tromsø in May/June. Kautokeino, in contrast to Tromsø (and the majority of Norway), is an area where Northern Sámi is a majority language. A number of important cultural institutions are located there. It was also the scene of the 1852 rebellion that was the subject of a film entitled ‘Kautokeino Opprøret’. Tromsø by contrast is a city in North-Norway where a number of Sámi people live. Northern Sámi

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29 This programme was first broadcast on 29 November 2011.
30 This film was directed by Nils Gaup.
is a minority language in this city.

Travelling to Kautokeino supported my realisation of how inaccessible the area actually is, and how inhospitable the climate could be (on some days the temperature dropped to -30 centigrade). The trip, which should have involved a two and a half hour flight from Oslo to Alta, and a bus journey from there to Kautokeino, was delayed by about six hours. The flight was diverted to Bodø, another airport in North-Norway, because there was ice on the runway in Alta. When I arrived in Alta the bus timetable at the airport differed from the one I had accessed online. The later bus was also delayed, and I eventually arrived in Kautokeino close to 11pm after having started out from Oslo at 7am that morning. This sense of inaccessibility was reinforced when I wanted to visit Karasjok, which is less than two hours drive from Kautokeino. The bus service between both towns is so infrequent that I could only visit Karasjok if I spent at least one night there.

This isolation is comparable to the location of many of the Gaeltacht, or Irish-language speaking areas, in Ireland. Although Ireland is geographically much smaller than Norway, historically poor road infrastructure has meant that reaching these areas on the West Coast has until recently required relatively long travel times. Public transport to these areas is still infrequent if available at all. Indeed, Ó Riagáin (2008) has argued that the isolation of the communities living in Gaeltacht areas is one of the reasons that the language survived in the past.

In stark contrast to the inaccessibility of the location and the inhospitable climate, the people I met in Kautokeino were open and welcoming. These included a number of prominent academics and members of the Sámi community. They took the time to discuss my research interests with me, invited me into their homes, and brought me out to experience various elements of Sámi culture. These experiences were invaluable to me.

I also realised how small Kautokeino actually was. I had imagined it to be quite a large town because of its importance in the discussions I observed and because of the location of a number of prominent institutions there. The important town I had imagined consists of one main street, along which these institutions are placed, intermixed with
some shops, two Churches and two or three places to eat/drink. This made me realise the importance of physically visiting an area in order to really understand what it was like. The prominence of cultural institutions on the main street also revealed the significant investment that has been made in maintaining and supporting the Sámi culture in this area.

The Sámi community is a minority community in Tromsø, and the culture is not as visible there as it was in Kautokeino. Discussing this with the colleagues I met at the University of Tromsø made me appreciate how special the situation I observed in Kautokeino was. It also made me realise that Sámi culture is not as easily expressed in Tromsø as it is in Kautokeino. It is expressed mainly at organised social events. This highlighted that people experience Sámi culture in a range of different contexts. It also compares to the situation in Ireland, where in seven of the Republic of Ireland’s 26 counties there are areas where the Irish language is spoken as a community language. In Gaeltacht areas in the counties of Galway, Donegal and Kerry in particular, over 67% of the population use Irish as their primary mode of communication (Ó Giollagáin et al., 2007). Irish language speakers who do not live in these areas would also consider them quite unique.

I have presented the main challenges I encountered during the research process, and discussed the strategies I implemented to manage them. In the next section I reflect on the key elements discussed in order to present future-oriented methodological contributions.

**Section Three: Future-Oriented Reflections**

I consider that the ‘Observational Remix’ strategy I employed worked well in terms of addressing the research questions that I was concerned with and maintaining the ethical integrity of the process. Once the limits of particular methods were acknowledged, other methods could be employed in order to access the understandings I prioritised. One aspect that was not as satisfactory was the use of Screen Shots to gather data. This was an extremely time consuming process and I am not entirely sure that the benefits were proportional. If I were to undertake a similar study again, I would use a programming tool to gather and code data.
Given that this project is a micro-sociological study of twenty-two minority language users and their interactions in Social Media, it does not lend itself to tests of reliability and generalisation in the more positivist sense of these terms. Its integrity therefore lies in the extent to which it addresses its overarching research questions, develops theoretical concepts and explores issues and questions that could lay the groundwork for further research (cf. Jensen, 2012). I maintain that managing the relational challenges with regard to participant selection, networked privacy and professional boundaries that I have discussed above, also strengthens the integrity of this project.

Another factor that supported the integrity of the research was the extent to which the ‘remixed observational’ design enabled intersubjective reflections to be incorporated. This acted as a balance to my background as a member of the Irish language community and revealed some analytical blind spots. Throughout this project I facilitated this kind of discussion by sharing my findings with the research participants as they evolved, and disseminating the research where possible in situations where minority language users could access it.

The implementation of a comparative case design was a further strategy to balance my culturally situated knowledge. As I engaged in the research process, I realised that gaining access to participants from the Northern Sámi case was not as straightforward as I had initially imagined it would be. My good intentions were not sufficient to overcome a cultural scepticism relating to research conducted by outsiders that targeted this community. In order to manage this strategy, I developed a methodology that facilitated my obtaining a contextual knowledge about this case. This experience was valuable in terms of understanding challenges that relate to the design of comparative case studies involving different communities.

These experiences built my interpretive competence with regard to the Sámi case. They also enriched my understanding of comparative issues relating to the Irish language case. In particular, the key analytical concepts of ‘reach’ and ‘access’ were developed and my approach to operationalizing them was refined. This in turn supported my exploration of how practices of Social Media-Innovation to create new opportunities for minority language use were implemented. In the next chapter I discuss the main findings and implications of this research project.
Chapter Four: Conclusions and Implications

‘Is féidir linn! Yes, we can!’
(Barack Obama, Dublin, 23 May 2011)31

Barack Obama visited Dublin in May 2011. During a public address, he translated his election campaign slogan ‘Yes, we can!’ to the Irish ‘Is féidir linn!’ This was intended as an empowering message to the Irish people who were experiencing economic recession at the time. I use the quote symbolically to reinforce the argument I make throughout this thesis. I maintain that we need to interrogate the discourses of empowerment that surround the introduction of new media technologies. These are politically constructed to serve particular interests, just as the ‘Is féidir linn!’ slogan was. It is only by interrogating these discourses that we can understand how the capacities that these technologies present can be mobilised to support the achievement of social goals.

In this thesis I focus on understanding how, and to what extent, users of minority languages are empowered to create new opportunities to communicate in Social Media. I outline three overarching questions that motivate my inquiry. They are:

- How are individual users empowered to create new opportunities to use their languages in Social Media?
- How can analysing these users’ practices as innovations provide a more nuanced understanding of the discourses of empowerment that surround them? and,
- Which theoretical frameworks or concepts support the analysis of innovations that aim to address social needs in media contexts?

In the preceding chapters I have discussed how the introduction of innovations in Social Media have been surrounded by discourses of user-empowerment (cf. Bruns, 2008; Jenkins, 2006). I have outlined how global corporate entities such as Facebook, Twitter, Google and Apple shape the technologies these innovations relate to, and frame the

31 The full speech is available at The White House (2014).
discourses of ‘sharing’, ‘participation’, ‘community building’, and ‘supporting languages’ that surround them (cf. Facebook, 2014c; Ó Coimín, 2014). Theories within the field of Minority Language Media Studies also reinforce these discourses by focusing on how the participatory capabilities of these technologies give users the ‘freedom’ to generate content in their own languages (cf. Jones and Uribe-Jongbloed, 2013; Pietikäinen and Kelly-Holmes, 2011).

I argue that analysing Social Media as ‘Media Innovations’ facilitates a critical interrogation of the processes of technological standardisation they represent. These processes aim to serve particular interests and reinforce established structures of power (cf. Latour, 2005). Perspectives from the field of Media Innovation Studies also facilitate an exploration of how commercial and institutional logics are carried forward through processes of incremental innovation (cf. Steensen, 2013; Storsul and Krumsvik, 2013). Furthermore, analysing the creation of new opportunities to use minority languages in Social Media as Social Innovations supports a critical interrogation of how individuals are empowered to use these innovations to address needs that they consider relevant (cf. Moulaert et al., 2013; Mulgan et al., 2007).

In this final chapter of the presentation of my thesis, I outline my contributions and their implications in light of these overarching questions. In Section One, I discuss these contributions with reference to the articles that are included in the second part of this thesis. I highlight the theoretical framework that supports these contributions and discuss their implications. In Section Two, I present the conclusion of my thesis. This focuses on how I have developed the concept of Social Media-Innovation to support an analysis of innovations that aim to address social needs in media contexts.

**Section One: Contributions and Implications**

The findings presented in this section are discussed in more detail in the articles included in Part Two of this thesis. I refer to these articles throughout the discussion according to the scheme outlined in Table Six. I structure this discussion according to the three theoretical sub-questions I proposed in Chapter Two. I restate each question, present my main contributions in relation to it, and discuss the implications of these contributions with regard to the projects’ overarching research questions.
Table Six: Article Title and Reference

<table>
<thead>
<tr>
<th>Article</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Social Media-Innovation: The Case of Indigenous Tweets</td>
<td>Article One</td>
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<tr>
<td>Small Pieces in a Social Innovation Puzzle? Exploring the Motivations of Minority Language Users in Social Media</td>
<td>Article Two</td>
</tr>
<tr>
<td>Lost in Space? Reaching-out to use Minority Languages in Twitter</td>
<td>Article Three</td>
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<tr>
<td>Dancing in the Dark: Protecting networked privacy in Social Media research</td>
<td>Article Four</td>
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1.1 Discourses of Empowerment and Relevant Needs

I wanted to understand how individual minority language users were empowered to create new opportunities to communicate in Social Media. I also wanted to establish how the communication needs of these language users related to the prevailing discourses of empowerment that surround these media. I therefore developed the following theoretical sub-question:

- How do the communication needs of minority language users relate to the discourses of empowerment that surround Social Media?

To address this research question, I adopted Proulx et al. (2011)’s theoretical differentiation between conceptualisations of empowerment as the ‘capacity to act’ and the ‘power to act’. I argue that Social Media platform providers ‘inscribe’ particular roles for their users and ‘grant’ them with certain ‘capacities to act’. These capacities reflect processes of technological standardisation that support the commercial interests of the platform providers and reinforce a dominant relationship between them and their users. However, throughout this study I observed users negotiating interpretations of these capacities and creating innovative opportunities to communicate in minority languages. I argue that this indicates that the participants had the capabilities, or ‘power to act’, to address their communication needs in certain situations.
Social Innovation theorists Mulgan et al. (2007) maintain that individuals are best placed to solve their own problems but require empowerment in order to do so. This raises the question of how the conditions for empowerment are manifest in Social Media contexts. Consequently, I implemented an ethnographically inspired study to try to understand how users of minority languages identified their own communication needs, and how the capacities presented by Social Media technologies facilitated or constrained addressing these needs. My explorations in this regard were also theoretically informed by understandings of the concepts of ‘access’ and ‘reach’ that are central to discussions about how media technologies can be used to support communication in minority languages (cf. Pietikäinen and Kelly-Holmes, 2011).

In Article One, I discuss how the Indigenous Tweets tool was created to generate new opportunities for minority language use. I explore the design of this tool by Professor Kevin Scannell, a member of the Irish language community. The design reflects Scannell’s own need to create new opportunities to communicate in the Irish language online. However, it is also considered relevant by other users in both the Irish and Northern Sámi cases. The tool functions primarily as a directory. It is designed to support interactions between minority or indigenous language users in Twitter. It currently recognises the users of 157 of these languages and lists them in an online directory. I compare how the tool is appropriated and used in both the Irish and Northern Sámi cases.

I find that the capacities of the tool that support interconnectivity are most relevant in the Irish language case. In the Northern Sámi case, the tool’s leader-board capacity, which is designed to encourage people to Tweet more, is considered more relevant. I discuss how the different relevance of these capacities in each case relates to the social and cultural contexts in which the participants are situated.

Users of the Irish language in Twitter are more numerous and globally dispersed than in the Northern Sámi case. They have more access to mediated communication in their language. Furthermore, in the Republic of Ireland education in the Irish language has been provided since the early twentieth century. As a result, a relatively large bilingual community understand the Irish language (see also Caulfield, 2013). Consequently the participants in this study considered it relevant to reach out to other Irish language users
and expand their communication networks. They used the technological capacities of the Indigenous Tweets tool in order to enhance their capabilities to do this.

By contrast, the Northern Sámi language community were less active in Twitter. This impacted the relevance of communication in this language, and the extent to which the participants could expand their communication networks. The participants therefore considered it important to increase the visibility of their language and to establish its relevance as a mode of communication on the platform. The leader-board capacity of the Indigenous Tweets tool was therefore more relevant to them than the directory capacity. They used this as a source of motivation to tweet more often in Northern Sámi.

In Article Two, I discuss how the participants were motivated to engage in socially innovative practices. Building on Ryan and Deci’s (2000) ‘Self-Determination Theory’, I develop a model that distinguishes between three categories of motivations. Each category indicates the extent to which motivations drive actions that are integrated with an individual’s beliefs and values, and relate to their internal needs for competence, relatedness and autonomy. ‘Intrinsic motivations’ for example drive autonomous practices of language learning and creativity, while ‘externally determined extrinsic motivations’ drive practices that relate to the promotion of linguistic competence for career development. These practices are implemented by gaining access to the capacities for communication that are presented by Social Media. These capacities are mobilised to support innovative language learning projects (in the case of intrinsic motivations) or to promote particular language skills or competences (in the case of ‘externally determined extrinsic motivations’).

I find that the category of ‘self-determined extrinsic motivations’ is most likely to drive practices of social innovation. This kind of motivation is integrated with an individual’s beliefs and values. However, it drives practices that aim to address needs of competence, relatedness and autonomy that are externally focused. As a result, this category of motivations can drive the implementation of social change.
In this study, practices to establish the relevance of minority languages in new contexts were driven by these motivations. These actions sought to address communication needs for competence and relatedness by supporting the provision of ‘access’ to capacities for representation in minority languages. They also supported these needs by establishing the relevance and ‘visibility’ of minority languages in new media domains. They encouraged interconnectivity between users, thereby enhancing their autonomy or ‘power to act’, in relation to the technological capacities presented in various Social Media platforms.

Summary

The participants used their ‘power to act’ in relation to Social Media to create new opportunities for minority language use. Their practices focused on negotiating the relevance of the technological capacities presented by Social Media to access opportunities to communicate in minority languages or to reach other users of these languages to engage them in communication. The participants were motivated to implement these practices because they related to addressing their own communication needs. In this regard, actions that were aligned with an individual’s internal beliefs and values, but focused on addressing external needs for competence, relatedness and autonomy, were most likely to generate socially innovative outcomes.

I find that theories and concepts from Media Innovation Studies are useful to explore the processes of technological standardisation by which Social Media are designed to inscribe their users with certain ‘capacities to act’. Rather than being directed at empowering users to address their communication needs, these capacities are designed to serve commercial interests. In spite of this, the participants in this study were empowered to negotiate the relevance of communicating in their languages in these media. The potential for individual action in these media is the result of a series of incremental innovations, and enhances the opportunities that were available in the ‘gifting’ and ‘service’ eras of Minority Language Media that Pietikäinen and Kelly-Holmes (2011) have identified. Consequently, I consider it important to explore how individuals negotiate the relevance of communicating in minority languages in Social Media. I discuss my findings in this regard, and their broader implications, in the next sub-section.
1.2 The Instrumentalization of Technologies

Feenberg (2005) maintains that technologies reinforce existing power structures. However, he argues that users can exert power to instrumentalize these technologies to serve their own innovative purposes. Consequently I wanted to explore how users of minority languages instrumentalized Social Media technologies to address their communication needs. I therefore developed the following theoretical sub-question:

- How do minority language users instrumentalize technologies in order to address their communication needs in Social Media?

To address this research question, I differentiated analytically between the ‘capacities to act’ with which Social Media technologies ‘inscribed’ their users, and the ‘capabilities’ that individuals possessed in order to act in relation to these technologies. In this regard I build on Mansell’s (1996) axial principle of ‘capabilities’ for communication, but differentiate between the social and technological dimensions of the principle. I propose ‘technological capacities’ to be the result of processes of standardisation, in keeping with Feenberg (2005) and Latour (2005). These processes simplify and restrict social capabilities for action in order to serve certain interests. Social capabilities for action on the other hand involve a range of competences and skills that are grounded in cumulative individual experience and learning. I maintain that it is through the facilitation and development of these capabilities that individuals can be empowered to act.

In Article Three, I find that a range of capabilities are required in order for users of minority languages to instrumentalize the capacities presented by Social Media to address their communication needs. I discuss in particular how the presence of other minority language users in these platforms is not sufficient to establish the relevance of these languages or create new opportunities for communication. Users must have the skills to navigate these platforms in order to reach other users and engage them in communication. Furthermore, they must have certain linguistic capabilities to engage other language users in relevant conversation and discussion.

With reference to the Irish language case, I discuss how some participants create what they describe as ‘immersive language networks’ or ‘real life simulations’ for language use in Twitter. One participant considers that a network he has designed, where he
interacts regularly with between twelve and twenty people, is sufficient for this purpose. However another participant is not satisfied with his network design as only one or two other users regularly interact with him. This indicates that the capacity to interconnect to large networks of users is not necessary to sustain communication in minority languages. However, the capability to instigate and maintain regular interactions in these languages is required. Consequently, I find that a range of skills, from linguistic competence to digital literacy, is required in order to instrumentalize the capacities for communication presented by Social Media and to create new opportunities for communication in minority languages.

Users of the Irish language instrumentalize the technological capacities presented by Twitter in order to reach other language users and engage them in communication. However, in Article Three I discuss how users of the Northern Sámi language do not do this to the same extent. The relatively low number of Northern Sámi users on the platform, and the extent to which these users are already interconnected, reduces the potential to expand communication networks in this case. I therefore find that although the participants may be presented with certain capacities to act and communicate, the extent to which they can access these capacities is constrained by the way in which technologies reinforce existing social structures.

In Article Three I also discuss how the diffusion of innovative interpretations of technological capacities is influenced in by the networked structures within which these innovations are presented. I provide examples of ‘hashtags’ used in the Irish language case to promote events and encourage interconnectivity. With reference to the #LL hashtag, I discuss how certain users were unclear about the purpose of this hashtag. This influenced how it was adapted and diffused. I also indicate that the overall number of users on the platform, and the extent to which they are already interconnected can limit the relevance of hashtags that aim to encourage network expansion. I therefore find that negotiations of relevance, in addition to factors of network size and interconnectivity, influence the instrumentalization of hashtags to support minority language use in Twitter.
In Article Two I discuss how some participants in the study use Social Media to promote their linguistic competence in the Irish and Northern Sámi languages. These participants promote the relevance of their skills with regard to careers where the use of these languages is considered relevant. I argue that the instrumentalization of the capacities presented by Social Media in this regard enhances the broader relevance of communicating in minority languages.

In Article Two I also discuss how stereotypical coverage of the Northern Sámi community in traditional media contexts motivated some participants to use Social Media as a platform to provide information about their community. This communication was mostly undertaken in Norwegian rather than in Northern Sámi because of its outward focus. This highlights the importance and value of applying the lens of innovation to explore individual communication practices in Social Media. It is not that users who engage in this practice don’t think that communicating in the Northern Sámi language is relevant. Instead, they consider the need to increase and improve the kind of information that is available about their community to be more important.

In Article One, I discuss how Indigenous Tweets is an incremental innovation that instrumentalizes the capacities for communication presented by Twitter. It builds on statistical information that is openly available to create a directory of indigenous and minority language users. In doing so, it repurposes and standardises these capacities to support minority language use. The case of Indigenous Tweets demonstrates that processes of instrumentalization rely on the mobilisation of a range of linguistic and digital literacy skills. The required skills range from the competence to read and write in a particular language, to technological skills that can be applied to decontextualize standardised capacities and repurpose them to address social goals.

Summary:
The design of technological innovations inscribes users with certain ‘capacities for action’. These capacities are the result of processes of standardisation that aim to address particular interests. Individuals require a range of skills and capabilities in order to instrumentalize these capacities and repurpose them to address social needs.
Individuals require both linguistic and digital literacy skills to communicate in minority languages in Social Media. They require the competence to navigate Social Media platforms in order to reach other users and engage them in communication. They also need to understand how the technological capacities these media present are constructed in order to instrumentalize them and create new opportunities for communication. I find that the potential to instrumentalize these capacities is also influenced by factors of network size and interconnectedness. These factors constrain the extent to which Social Media can be used to expand minority language communication networks.

The limitations I identify indicate that Social Media cannot ‘empower’ users to address social needs. Instead, users need to develop a range of skills and competences in order to have the power to act in relation to these technologies. This reinforces the requirement to differentiate between the ‘capacity to act’ and the ‘power to act’ in Social Media contexts. This in turn provokes questions about the extent to which the ‘power to act’ in Social Media is facilitated or constrained by the agents that are involved in the networked structures they present. Consequently, I maintain that we need to understand how these agents influence the creation of new opportunities to use minority languages. I discuss the contributions of the project, and their broader implications in this regard, in the next sub-section.

1.3 How Networks of Agents influence Innovation

Foucault (1980) maintains that power is manifest in networks of social relations. Analysing how individuals create new opportunities for communication in minority languages in Social Media therefore requires an exploration of how the ‘power to act’ is facilitated or constrained by the networks of agents they present. I designed the following theoretical sub-question to support my analysis in this regard:

- How is the ‘power to act’, to create new opportunities for minority language use, facilitated or constrained by the networks of agents present in Social Media?

In order to address this theoretical research question, I needed to determine which agents were involved in the Social Media contexts that I was exploring. Theories of Social Innovation maintain that new constellations of actors are required to address social needs (cf. Moulaert et al., 2013; Mulgan et al., 2007). Social Media present hybrid contexts where commercial actors present individual users with certain
‘capacities to act’. Within the field of Minority Language Media Studies, Pietikäinen and Kelly-Holmes (2011) argue that in the ‘performance era’, individual minority language users become the key actors in maintaining their languages. They maintain that this differs from previous ‘gifting’ and ‘service’ eras where national or regional governing authorities ‘granted’ minority language communities with access to limited resources in order to facilitate communication in their languages.

However, I argue that research within the field of Minority Language Media Studies does not sufficiently interrogate the role of Social Media platform providers in this regard. By focusing on the ‘freedom’ that these media present for individual communication, I argue that these theories don’t sufficiently interrogate how the role of ‘gifting’ the capacity to communicate has transferred from governmental actors to global media corporations. I argue that we need to explore and understand how users of these media enter commercial contexts in which their interactions are commodified and become hyper-visible, while those of their facilitators become increasingly more difficult to grasp and interrogate.

The global commercial actors that ‘grant’ minority language users the capacity to communicate in Social Media elude the requirements for transparency and accountability to which democratic administrations, or traditional regional or national media operators must adhere. I argue that because of this, we need to critically interrogate the kinds of ‘gifts’ they are providing. Consequently, I argue that analysing the creation of new opportunities for minority language use as processes of Media Innovation enables a more critical interrogation of the role of media actors in these processes.

In Chapter Two I have discussed how processes of Media Innovation involve both social actors, such as individual users or media corporations, and technological actants. Technological actants are designed to serve specific interests. In Article One, I discuss how Social Media-Innovation can occur in hybrid contexts, where the interests of all parties may not be aligned. In particular, I demonstrate that Indigenous Tweets is designed as a tool to support minority language use. It does not aim to generate any commercial revenue. However, it exploits the capacities for communication presented by the Twitter platform, which is a commercial service. Some participants are
discouraged from using the Twitter platform because of the way in which it commodifies their interactions. One participant in particular discontinued her use of the service because of concerns about her privacy.

Interestingly, this brings about a situation where some of the primary agents in processes of Social Media-Innovation are non-human actants. I argue that the purposes for which these actants are designed, in addition to the principles on which they operate, must be analysed. This is because they may facilitate or constrain processes of Social Media-Innovation. Concepts such as Bücher’s (2012) ‘programmed sociality’ enable an understanding of how these technologies are designed to reinforce certain patterns of behaviour in order to generate commercial revenue. However, in the case of commercial actants, I maintain that it is not clear how and why they are deployed beyond the level of principle. The recent controversy surrounding the ‘Facebook emotional study’ reveals that the interactions of users are manipulated without their awareness (cf. Kramer et al., 2014) and that the providers of this service don’t consider this to be problematic. By contrast, in Article One, I show that information about the primary actants deployed to support Indigenous Tweets is openly accessible.

In Article Four, I discuss how participants in Social Media cannot be aware which agents have access to their data at any given moment in time. This includes both social and commercial agents that access and process personal data relating to them. Following Marwick and boyd (2014), I find that users are required to implement strategies to manage the ‘networked privacy’ that emerges in these contexts. Focusing on the implementation of research, I develop the categories of ‘core’ and ‘ancillary’ participants to highlight the requirement for researchers to ensure that they do not unduly encroach on the privacy of individuals in these spaces. This includes individuals that may be implicated by a particular research project, without necessarily coming within its analytical scope.

With regard to individual users, in Article Two, I discuss the importance of exploring the interests of the ranges of individuals that need to be mobilised in order to support the diffusion of innovations to create new opportunities for minority language use (cf. Rogers, 2003). This relates to the requirement to acknowledge that groups of language users are not homogenous (see also Pietikäinen and Kelly-Holmes, 2011 in this regard).
I note how, in the Irish language case, a number of participants reject the ‘Gaeilgeoir’ label that is applied to people who actively promote the Irish language. They consider this label to refer to people who are cranky and who may ultimately discourage others from communicating in Irish. Understanding this nuance is important because it implies that users of the Irish language will not unquestioningly adopt social innovations implemented by other Irish-language users. In particular, this finding implies that certain ‘influence’ is required to support the diffusion of social innovations amongst users of the Irish language that resist being categorised as ‘Gaeilgeoiri’ or ‘activists’.

In Chapter Two I discuss how Cunliffe, Morris and Prys (2013) propose that the construction of communication networks in Social Media may support minority language use. This is because these new mediated networks can overcome the ‘structural holes’ that have previously influenced isolated communities of minority language speakers. However, in Article Three I demonstrate that in order for this to be possible, users need a range of linguistic and digital literacy skills. Consequently, in keeping with Pietikäinen and Kelly-Holmes (2011), I argue that national and regional authorities continue to have an important role to play in facilitating the development of these kinds of skills in educational contexts. This facilitation is required to ensure that individuals are empowered to act and to realise the potential benefits of communicating in Social Media.

Furthermore, individuals need to be able to access opportunities to communicate in Social Media. This implies access to infrastructural requirements, such as the relevant keyboards, and to broader considerations such as Internet connectivity. It also relates to the provision of broader mediated content, such as news and current affairs content, and entertainment programming, in these languages. In Article Two I discuss how the absence of this content in the Northern Sámi case causes some participants to communicate in Norwegian in order to increase the amount of content that is available about this community in the public domain.

In traditional media contexts, Public Service Broadcasters are tasked with the responsibilities of promoting dialogue, debate and inclusion in national contexts (cf. RTÉ, 2014). It is also recognised that users need access to a diversity of content from a
range of sources (cf. BAI, 2014). These requirements continue to apply in the context of informing dialogue and debate in Social Media. I argue that national and regional authorities therefore continue to have an important role in ensuring the availability of a diversity of content from a range of sources to support minority language interactions in these contexts.

Summary:
I argue that analysing the creation of new opportunities to use minority languages in Social Media as Media Innovations enables a critical interrogation of the role and interests of global media actors in facilitating these innovations. In particular, I maintain that these corporations take on the primary ‘gifting’ role of providing access to the capacity to communicate in minority languages that was previously undertaken by national or regional administrations. Consequently, I maintain that the interests of these agents need to be interrogated. I find that the way in which these agents influence interactions in Social Media is not clear, with particular regard to how technological actants such as algorithms, content management systems and databases are deployed. Consequently, users cannot determine who has access to their data or how it is being processed at a given moment in time. In particular, I find that the way in which technological actants influence the privacy of users of Social Media can cause users to avoid interacting in these platforms. I therefore maintain that greater transparency is required in this regard.

I find that a range of social actors can also influence the diffusion of innovations to create new opportunities for minority language use. In particular, I maintain that minority language users should not be considered to form homogenous groups. Instead the heterogeneous and complex interests of the ranges of individuals within particular language groups need to be considered. I illustrate this with reference to the ‘Gaeilgeoir’ example in the Irish language case.

I also find that although individuals may be presented with certain ‘capacities to act’ in Social Media contexts, national and regional authorities continue to have a role to play in supporting individual ‘power to act’ in relation to these technologies. This relates to the requirement to facilitate the development of linguistic and digital literacy skills, the requirement to ensure access to opportunities to communicate in new media
environments, and the requirement to ensure that a range of mediated content from a diversity of sources is available to support interactions in minority languages in these contexts.

Finally, I find that the interests of the constellations of agents that are involved in Social Media-Innovations need not necessarily be aligned. This is because processes of social innovation can be implemented in the hybrid contexts that Social Media present, in spite of the fact that these platforms are ultimately designed to support commercial interests. I argue that because of this, greater transparency is required about how particular technological actants are deployed to serve certain interests. This influences the choices that people make about whether or not they can use these media to address their social needs.

**Section Two: Conclusion**

I conclude that in order to understand how users of minority languages are empowered to create new opportunities to use their languages in Social Media, we must interrogate the discourses of empowerment that surround these technologies. Following Proulx et al. (2011), I argue that by differentiating between the ‘capacity to act’ that is granted by Social Media platform providers to their users, and the ‘power to act’ that individuals have in relation to these technologies we can begin to explore the conditions that are required to facilitate empowerment.

Inspired by theories of Social Innovation (cf. Mulgan et al., 2007), I argue that we need to understand how users articulate their own communication needs in order to understand why and how they might consider the capacities presented by media technologies to be relevant tools with which to address these needs. We also need to investigate the empowering capabilities that users require in order to instrumentalize the capacities for communication that Social Media platforms present. Finally, I argue that we need to assess how the new constellations of agents that are involved in Social Media facilitate or constrain the empowerment of users to create new opportunities to communicate in their languages.
I propose that analysing how users create opportunities to communicate in their languages as processes of innovation facilitates a critical interrogation of the way in which these processes are implemented. In particular, it enables a focus on how innovations result in the standardisation of certain technologies to serve specific interests. I maintain that interrogating the relations of power these technologies reinforce enables an understanding of how users can instrumentalize them to address social needs. I argue that we also need to understand what capabilities users require in order to repurpose the capacities for communication that these technologies present. The lens of innovation further enables an exploration of how aspects of particular technologies, such as their commercial or institutional logics, are carried forward through processes of incremental innovation.

Throughout this dissertation, I employ theories and concepts from Media Innovation Studies and Social Innovation Studies to explore the processes of innovation that I observed. I supplement these theories with perspectives from Minority Language Media Studies, Feenberg’s (2005) Critical Theory of Technology and Science and Technology Studies. However, my search to situate the project within an appropriate theoretical framework revealed that none of these fields of study provided a satisfactory holistic framework for my analysis. Consequently, I propose the concept of ‘Social Media-Innovation’ as a generative critical concept to support future research in this regard.

I delineate the concept according to three central attributes that I have derived through my exploration of the object of study in this project, and the application of relevant theories and concepts to support this. I maintain that these central attributes are also relevant to broader processes of innovation to create new opportunities to use other minority languages in Social Media. Furthermore, I propose that they are relevant to other kinds of innovations that aim to address social needs in media contexts.

I argue that Social Media-Innovations must be considered relevant by users to address their identified social needs. They require the mobilisation of empowering capabilities in order to instrumentalize the capacities for communication that are presented by media technologies to address social needs. Finally, they bring about new constellations of agents that influence how users are empowered to address their needs. These three
attributes are interrelated but have distinguishing characteristics. They also provide a centralising framework to critically interrogate further instances of social innovations in media contexts.

The development of this concept, and its delineation according to three central attributes is an important theoretical contribution. It is grounded in empirical research and derived from theoretical developments in the fields of Social Innovation Studies and Media Innovation Studies. Its presentation as a generative concept also has methodological implications. These relate firstly to the fact that it proposes an initial analytical framework to explore other similar processes of innovation. It also relates to the reflections generated throughout this project about the most appropriate methodological and ethical frameworks through which these analyses could be implemented.

I have analysed how twenty-two users of the Irish and Northern Sámi languages engage with processes of Social Media-Innovation in Facebook, Twitter and Blogs. I find in general that users of the Northern Sámi language prioritise accessing opportunities to communicate in these environments and subsequently, making their language visible. By contrast, in the Irish language case, the majority of participants have had greater access to media services in this language. These participants can therefore prioritise extending their communication networks to generate new relationships where using this language is considered relevant.

The users in each case mobilise a range of empowering capabilities to achieve their goals. These include literacy skills that range from the ability to communicate in a particular language, to the ability to manipulate or repurpose the capacities for communication presented by Social Media technologies in order to address social needs. These empowering capabilities are constrained by the ranges of agents that are present in the hybrid media contexts in which these processes of innovation are implemented. These agents include individuals who volunteer their time and skills to implement these processes, global corporate actors, and national or regional administrations. For the most part, the way in which commercial actors influence these interactions is not transparent. I consequently argue that an interrogation of the interests of all agents that are party to these interactions is required. This is because greater
transparency in this regard would support an understanding of how processes of Social Media-Innovation are facilitated or constrained.

This contribution is presented to support the generation of further knowledge about processes of Social Media-Innovation. I maintain that by providing a framework to organise this kind of analysis, knowledge can be generated to support the implementation of future processes of this kind. Further research is required to test the concept and its attributes in other instances of social innovations in media contexts. The microsociological nature of the current research project limits further generalisations about this concept at this stage.

To return to Barack Obama’s ‘Is féidir linn!’, I maintain that change is possible. However, we need to understand the conditions under which empowerment is facilitated or constrained in order to harness the benefits of change to address social goals. By acquiring and distributing this kind of knowledge, we might be able to support the maintenance of minority languages, and prevent them from becoming ‘Lost in Space’.
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PART TWO: ARTICLES
Article One:

Social Media-Innovation: The Case of Indigenous Tweets

This article has been accepted for publication in the Journal of Media Innovations.

Abstract

Twitter presents new opportunities for individual communication. Consequently, it may be a relevant arena in which to address the social need of minority language maintenance. The Indigenous Tweets website presents a directory of minority language users on Twitter (www.indigenoustweets.com). It aims to create new opportunities to use these languages, thus to address a social need through media innovation. In this article, I draw on a theoretical framework from Media Innovation and Social Innovation Studies, to delineate the concept of Social Media-Innovation. I propose three distinguishing attributes. Firstly, users of these innovations must consider them relevant to address identified social needs. Secondly, the communication capabilities they present must support addressing these needs. Thirdly, they should facilitate mediated interaction that enhances society’s capacity to act. Having delineated the concept I explore how its attributes are manifest in practice with reference to the case of Indigenous Tweets. I find that the relevance of Indigenous Tweets is negotiated with regard to culturally specific needs in different social contexts. The development and use of its communication capabilities are supported by incremental experimentation and learning. Furthermore, while it facilitates mediated interactions that are designed to enhance society’s capacity to act, these occur in a hybrid media context and are influenced by the range of agents involved. This article contributes to studies of Media Innovations by delineating the concept of Social Media-Innovation according to three central attributes. It also analyses how these are manifest in practice with reference to the case of Indigenous Tweets.

Keywords: Social Media-Innovation; Communication Capabilities; Mediated Interaction; Minority Languages; Indigenous Tweets
Introduction

Traditional mass media services have produced limited content in minority languages (cf. Jones, 2013). Social Media present new opportunities for networked communication between individuals in these languages. Amongst these services, Twitter is distinct because it has largely been appropriated for open, or public, communication. It presents opportunities for ‘microblogging’, allowing users to post short messages, 140-characters in length, to networks of ‘followers’ (cf. Marwick and boyd, 2011). Consequently, open interaction on the Twitter platform may enhance the visibility of communication in minority languages.

The potential for individual communication in Social Media presents new possibilities to address the social challenge of minority language maintenance (cf. Jones and Uribe-Jongbloed, 2013; Kelly-Holmes, 2014; Pietikäinen and Kelly-Holmes, 2011). Paradoxically, it is acknowledged that unequal access to digital technologies can reinforce the imbalances inherent in existing power structures (Alia, 2009; Demeurt, 2014). Consequently, in this article, I aim to contribute a nuanced understanding of how Social Media can be used to address social needs. I focus specifically on the challenge of minority language maintenance.

I propose Social Media-Innovation as a concept to analyse innovations in media that aim to address social needs. I focus on how the central attributes of this concept are manifest in the process of innovation that relates to Indigenous Tweets (www.indigenoustweets.com). Indigenous Tweets presents a directory of minority and indigenous language users on Twitter. It was created to facilitate interaction between these users and to encourage them to tweet more (Scannell, 2013). It therefore aims to address a social need. It is theoretically a social innovation because it also supports the development of new relationships, and enhances society’s capacity to act (Moulaert, MacCallum, Mehmood & Hamdouch, 2013; Mulgan, 2012).

At the same time, Indigenous Tweets relies on and constitutes media innovation. It uses a web crawler to search the Twitter platform and identify instances where certain languages are used. It catalogues language-users in lists which hyperlink to their Twitter profiles. It presents these lists in a leader-board format according to who
tweets most often, to the highest percentage, or most recently. It currently tracks 157 languages, and lists the top 500 tweeters in each (Scannell, 2014a).

Importantly, the concept of Social Media-Innovation does not relate exclusively to ‘Social Media’. Other broadly recognisable examples might include the development of participatory community radio (Day, 2008), collaborations to generate localised content in Wikipedia (Demeurt, 2014; Graham and Hogan, 2014), or practices of digital humanitarianism such as the use of Ushahidi to generate crisis information during natural disasters (Burns, 2014). I argue that delineating the central attributes of these processes supports the production of new insights into how media can be used to address social challenges. I therefore address the following research questions:

• What attributes characterise Social Media-Innovation?; and,
• How are these attributes manifest in the process of innovation that relates to Indigenous Tweets?

The discussion is based on an analysis of the design and use of Indigenous Tweets during an 18-month ethnographically inspired observational study. This involved twelve Irish- and ten Northern Sámi-language users and an analysis of the tool itself (Scannell, 2007; Scannell, 2013; Scannell, 2014a; Scannell, 2014b). I explored interactions involving the tool in Twitter. I also conducted an in-depth content and discourse analysis of six-weeks of interactions to enable a closer investigation of the participants’ practices. These findings formed the basis for qualitative interviews where the design and use of Indigenous Tweets were discussed.

This article makes two contributions to the field of Media Innovation Studies. It establishes and delineates the concept of Social Media-Innovation with reference to three central attributes. It also analyses how these attributes are manifest in the case of Indigenous Tweets. Section One outlines the article’s theoretical framework and delineates the category of Social Media-Innovation. Section Two presents a brief contextual note about the need to create new opportunities to use the Irish and Northern Sámi languages. Section Three discusses how Indigenous Tweets is an example of Social Media-Innovation with reference to its delineating attributes. Section Four presents the concluding remarks.
Section One: Social Media-Innovation

As a concept, Social Media-Innovation refers to innovations in media that aim to address social needs. It is a tool to explore how constellations of agents interact to solve social problems within and across media platforms. These interactions involve the design, interpretation and appropriation of certain communication capabilities. The concept is theoretically rooted in Media Innovations Studies (Storsul and Krumsvik, 2013), while at the same time informed by theories that relate to Social Innovation (Moulaert et al., 2013; Mulgan, 2012).

To date, studies of media innovations have largely focused on changing aspects of the established journalism and audio-visual industries (cf. Storsul and Krumsvik, 2013; Westlund and Lewis, 2014). In spite of this, new practices in media, in particular but not limited to Social Media, include innovative activities by non-traditional media actors. Bruns (2014) argues that because media increasingly both drive and reflect social change, media innovations can be considered societal innovations. He demonstrates that individuals acting beyond organisational boundaries, for example in Twitter, can engage in practices of ‘produsage’, blurring the roles of producers and consumers to report on natural disasters or other catastrophes (Bruns, 2012). He argues that these practices cumulate as societal innovations, whether or not they positively impact the status quo (Bruns, 2014, p. 14). I argue that Social Media-Innovations, such as Indigenous Tweets, participatory community radio (cf. Day, 2008), localising content in Wikipedia (cf. Demeurt, 2014; Graham and Hogan, 2014), or mediated practices of digital humanitarianism (cf. Burns, 2014), merit separate theoretical consideration precisely because they aim to address social needs.

Both social innovations and media innovations are understood as the introduction of new combinations of existing ideas, competences and resources to a socioeconomic system (Fagerberg 2005; Mulgan 2012; Shtern, Paré, Ross & Dick, 2013; Storsul and Krumsvik, 2013). Drawing on Frances and Bessant’s (2005) four Ps of innovation, Storsul and Krumsvik (2013) point out that Media Innovation can include product, process, position and paradigm innovation. They also extend the potential for media

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32 The Journal of Media Innovations also recently been established to explore media innovations and act as a point of focus for theoretical research in the field.
innovations to focus on social objectives, with reference to the author’s analysis of users’ motivations for participating in practices of social innovation (Ní Bhroin, 2013).

Three essential attributes distinguish Social Innovation from other kinds of innovations according to the relevant literature. They must aim to solve an identified social need. They require the application of a range of skills or capabilities. They also bring about new relationships or collaborations that enhance society’s capacity to act (Dawson, Daniel & Farmer, 2010; Moulaert et al., 2013; Mulgan 2012). These attributes apply to Indigenous Tweets. It is therefore a social innovation. However, Indigenous Tweets is also a media innovation. Consequently, it presents an interesting, but by no means unique case, where attributes of social innovations and media innovations intersect.

Recent developments in the field of Media Innovation Studies analyse their distinct socio-technical genesis. Perspectives from Science and Technology Studies (‘STS’) have been used to assess this (cf. Colbjørnsen, 2015; Westlund and Lewis, 2014). These perspectives focus on the roles of both actors and actants as agents of change. The concept of an actant is derived from literary studies and used in Actor-Network Theory (‘ANT’) to refer to a non-human agent (Latour, 2005). A magic wand is a typical example of a literary actant. It is a non-human agent that causes a particular outcome (Latour, 2005, p. 54-55). Within studies of the Social Construction of Technology (‘SCOT’) the concept is considered controversial because it draws attention away from the fact that all technology is ultimately socially constructed and inscribed with certain values. For example, a magic wand can cause ‘good’ or ‘evil’ outcomes depending on how it is inscribed with power by its user, and on how the outcomes it causes are socially understood (cf. Oudshoorn and Pinch, 2003).

Despite the controversy, the concept of ‘actant’ serves as a useful heuristic to highlight the presence and causality of non-human agents in socio-technical media innovation. Examples of technological actants include algorithms, databases and content management systems that influence and constrain social interaction in mediated spaces (cf. Westlund and Lewis, 2014). Inspired by perspectives relating to SCOT, the concepts of actors and actants are also useful to explore how a range of values and interests influence processes of Social Media-Innovation.
Earlier work in the field of media and cultural studies provide additional concepts to explore how the relevance of Social Media Innovations, with regard to addressing social needs, is negotiated. Concepts such as Mansell’s (1996) axial principles of ‘capabilities’ and ‘design’ are useful to overcome what Oudshoorn and Pinch (2003) have referred to as ‘the artificial divide between design and use’. Furthermore, Feenberg’s (2005) ‘instrumentalization theory’ indicates the processes by which technologies are designed and used and how these relate to an interpretation of their suitability to address specific purposes. Moreover, Feenberg’s (2012) argument that the Internet is a technology in flux, for which innovative uses continue to be derived, highlights the dynamic foundations from which some processes of Social Media Innovation may emerge.

The concept of ‘domestication’, originally used by Silverstone and Hirsch (1992) to analyse the appropriation of technology in the home, and further extended by Lie and Sørensen (1996) to broader organisational and social contexts, is also useful when discussing Social Media Innovations. This is because it facilitates the inclusion of cultural, societal and economic factors in an analysis of the appropriation of technology (Sørensen, 2013). It therefore helps to explore the factors that influence how the capabilities of a Social Media Innovation are designed and used, and how they are considered relevant (Sørensen, 2013, p. 15). In this regard, Lievrouw (2012, p. viii) has pointed out that because the Internet is designed for survival, redundancy and openness, it resists the closure and stabilisation that have marked interpretations of earlier communication technologies (see also Lievrouw and Livingstone, 2006). This resistance to closure also supports processes of Social Media Innovation.

Combining these theoretical developments, I focus the three distinguishing attributes of social innovations to incorporate considerations about the socio-technical genesis and capabilities of media innovations. In doing so, I delineate the category of Social Media Innovation. These media innovations should also be considered relevant by users to solve identified social needs. This relevance is determined with reference to their media-specificity. They should present social and technological communication capabilities that facilitate addressing the needs identified. They should also bring about mediated interaction, between actors and actants, which enhances society’s capacity to act.
In the next section I briefly summarise how the social need to create new opportunities for minority language use is manifest in the Irish and Northern Sámi cases. I then analyse Indigenous Tweets as a Social Media-Innovation with reference to the distinguishing attributes I have identified.

Section Two: Context

In both the Northern Sámi and Irish language cases, more or less formalised social movements have historically mobilised to achieve political language-related goals. These have included creating opportunities to use these languages in media (cf. Hourigan, 2004; Ijäs, 2012; Skogerbø, 2000). This influences the contexts in which Indigenous Tweets, as a Social Media-Innovation is introduced and considered relevant.

The Northern Sámi Language Case

Northern Sámi is one of nine varieties of Sámi languages. It is unclear how many people speak it. This is partly because Sámi people live primarily in four countries, in Norway, Sweden, Finland and Russia, in an area known as Sápmi (see Figure One below). It is estimated that between 30,000 and 40,000 people understand a Sámi language, with the majority of these (ca. 90%) belonging to the dominant, Northern Sámi group, and living in Norway (Magg, 1997; Rasmussen and Nolan, 2011).

Northern Sámi was historically an oral language. Religious missionaries and researchers produced the first texts in the language in the seventeenth century. Magga (2002) has argued that this contributed to a sense of inferiority amongst members of the community with regard to their ability to communicate in writing in their own language. This was compounded by a range of assimilation policies that denied education in the language between the mid-nineteenth and mid-twentieth centuries (Helander, 2005; Magga, 2014). To the present day, the precarious status of the language is manifest in the attitudes of some parents, who do not consider that their children should learn it at school (Rasmussen and Nolan, 2011).

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33 Recent research estimates that 150,000 Sámi people live in these four countries (cf. Rasmussen and Nolan, 2011).
The survival of Northern Sámi can be attributed to the mobilisation of various social movements to gain increased rights for Sámi people. While these began to take shape in the early 20th Century, their most significant focal point was the protest against the construction of a hydroelectric dam at Alta in Northern Norway between 1979 and 1981. This cultural and environmental protest brought a renewed energy to the promotion of Sámi interests (Brantenberg, 2014; Ijäs, 2012).

In Norway, Sámi was recognised as an official language in 1988, and the Sámi Language Act came into effect in 1992, giving the established Sámi parliament partial responsibility and power in educational matters (Weber and Horner, 2012). Administrative areas were delimited within which it was possible to use Northern Sámi to engage with official institutions (Magga, 2014). Cultural and media institutions were also established (Skogerbø, 2000). In spite of these measures opportunities to use the language in everyday contexts are still limited (Sametinget, 2012).

Figure 1: Source of Tweets in Northern Sámi (Source: Scannell, 2014c)

The majority of Tweets originate in Sápmi, with the exception of Oslo, Brussels and Moscow.

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34 For a further discussion on difficulties ascertaining numbers of speakers of minority languages, see Moore, Pietikäinen and Blommaert (2010).
The Irish Language Case

Irish was the primary language spoken in Ireland until the eighteenth century. Processes of colonisation, combined with famine and emigration resulted in its declining relevance (Ó hIfearnáin, 2001). By 1926, only 18% of the population of the Irish Free State could speak it (CSO, 2014). In 1921, the Anglo-Irish Treaty created the Irish Free State (which became the Republic of Ireland in 1937) and Northern Ireland. Both administrations implemented radically different approaches to language planning.

Roughly 40%, or 1.77 million Irish people state that they have some competence in the language. However, only 94,000 or just over 2% use the language daily outside of the language.
education system (CSO, 2011). This highlights a lack of opportunities to use the language for those who can speak or understand it (Caulfield, 2013).

In response to waning official interest, social movements constituted to promote the rights of the language community. Hourigan (2004) outlines how these movements established pirate radio and television stations. These were ultimately formalised as public service broadcasters (Hourigan 2004; Watson 2003). These movements demonstrate the requirement for a combination of top-down and bottom-up initiatives to support language maintenance (Moriarty 2014).

By contrast, the rights of Irish language users in Northern Ireland were at best ignored until the ratification of the Good Friday Agreement of 1997, and subsequently the European Charter for Regional or Minority Languages in 2001. This related to a political struggle surrounding the union of the province with the United Kingdom. A frustration with the absence of civil rights, coupled with a desire to be part of an independent Irish republic led to the foundation of the terrorist organisation, the Irish Republican Army (IRA). This movement adopted the language as a symbol of nationalism. In particular it was used as, and came to symbolise a secret mode of communication between political prisoners (Malcolm, 1997).

Furthermore, a history of significant emigration has generated a global Irish-speaking diaspora. Figure Two above shows that Tweets in Irish are sent from areas including Canada, the USA, and Brazil. This diaspora has limited opportunities to use the language. McGonagle (2012) for example has explored the extent to which Irish language users living in Canada have opportunities to communicate.

The Irish language has been promoted and politicised in a variety of ways in the Republic of Ireland and Northern Ireland. It is also used by an international diaspora in a range of different multilingual locations. These present different contexts into which Indigenous Tweets is introduced and appropriated.

35 This charter does not apply in the Republic of Ireland because of the status of Irish as a national language.
Section Three: Discussion and Analysis

In this section, I analyse how the delineating attributes of Social Media-Innovation that I proposed in Section Two are manifest in the process of innovation that relates to Indigenous Tweets. The discussion focuses on considerations about the relevance of Indigenous Tweets to address a social need; the communication capabilities it presents; and the mediated interactions it brings about.

The interview extracts in this section are presented in English although originally conducted either in Irish or Norwegian and Swedish. All participants are referred to by an altered first initial to protect their privacy. ‘I’ or ‘NS’ indicate the case they belong to. Kevin Scannell is referred to as ‘KS’.

3.1 Relevance

Figure 3: Indigenous Tweets Home Page (Source: Scannell, 2014a)

Figure Three presents the Home Page of the Indigenous Tweets tool. Its purpose is to create new opportunities for indigenous and minority language use in Twitter. It presents a directory of these languages users and aims to encourage them to tweet more (Scannell, 2013). The social need that the tool addresses is internationally relevant. However, it currently identifies 157 different languages. Each of these presents a different context where the relevance of the tool is negotiated.
Currently, the tool identifies 7,426 Irish-, and 136 Northern Sámi language users. All twelve of the participants in the Irish language case used Twitter and the Indigenous Tweets tool. In the Northern Sámi case, only six participants had Twitter accounts. Three of these used Indigenous Tweets. The lower level of engagement in this case can primarily be attributed to considerations about the extent to which other users of the Northern Sámi language can be reached via the Twitter platform (Ni Bhroin, 2015, in preparation).

The Irish Language Case:

The participants in this case were based in the Republic of Ireland (eight), in Northern Ireland (two), and included members of the Irish-language diaspora (two). Ten (of twelve) had very limited opportunities to use the language. Their limitations varied according to the different political and cultural contexts in which they were situated. These in turn influenced how they understood the relevance of the tool. Five users mentioned browsing the Irish-language list on Indigenous Tweets to identify people that they could include in their communication networks (C(I), B(I), V(I), J(I), U(I)). This underlines the relevance of the tool as a directory for them.

Kevin Scannell’s primary motivation in creating Indigenous Tweets was his personal interest in using the Irish language (Scannell, 2013). In spite of this, the impetus to create the tool came from his involvement with international colleagues working to protect under-resourced languages in computer-mediated contexts:

KS: Ah, it was an accident, em, just... I got an email from a friend in Haiti. He said: ‘Oh can you, you know, you’re doing Language Identification, em. Can you gather every Tweet in Haitian Creole?’

KS: So it was just an experiment for a weekend, and I just kind of created a little programme that you know collected all the Tweets for about three weeks or a fortnight in Haitian Creole. Ahm, and the result of that was: ‘Oh wow! What’s that? That was easy. I should do the same thing for Irish, and then, for other languages.’

36 These numbers have increased from 861 and 59 respectively in May 2011.
The impetus to create Indigenous Tweets was therefore socially derived and related to understandings of technological capabilities.

Residing in Saint Louis, Missouri, Scannell first learned Irish from books, dictionaries and novels. During the 1990s he used the language in email lists and bulletin boards but found the asynchronous nature of communication there to be unsatisfactory to support his learning needs, particularly after visiting Ireland for the first time:

*KS*: I started going to Ireland regularly, maybe just ten years ago. And before that, I wasn’t able to say anything in the language, I just couldn’t. I was fluent as a reader and writer, on the Internet, you know. I had the grammar and a large vocabulary. But when I visited, on the first visit, I was just dumb! (Laughs)

*Author*: Ok, yeah?

*KS*: You know in the Gaeltacht just, eh, em I thought: ‘Oh you know the language’, you know, ‘You can read signs and…’ Yeah, but, so… so it was kind of a shock to the system. (Laughs)

*Author*: Yeah, yeah (Laughs)

*KS*: So, em, so it (Twitter) is a kind of, simulation, just eh, a natural life for the language.

Scannell’s desire to create new opportunities for language use was shared by other participants. However they experienced different challenges relating to the contexts in which they were situated. Another participant, from Northern Ireland, discussed how her discomfort using the language in public, due to its political significance, restricted her opportunities to communicate.

*D(I)*: I think it relates to certain areas. I would be very comfortable using it (Irish) in Belfast, in a nationalist area. Not like – on the Falls Road you’re ok. Everyone knows that. You wouldn’t say anything about it. And in Derry, and I guess if you’re going to be blunt about it you would feel comfortable using it in nationalist areas and you wouldn’t in others. You wouldn’t see me speaking Irish on the Shankill Road in a million years. And I guess everyone agrees about that. There are some people who can be a bit more demanding. I was in South Belfast a couple of months ago and I was speaking to a friend in Irish. And I noticed – we were maybe on Botanic Road and that’s a nice area you know, like the University area, so it
shouldn’t be any problem. There shouldn’t be any difficulty with it, but I still felt strange about it. He was comfortable, but I was a bit paranoid about it I suppose.

This reveals that users of Indigenous Tweets within the same language case experience challenges regarding to language use in different ways. This influenced how they considered the relevance of the tool.

The Northern Sámi Case:

A much lower number of Northern Sámi users have Twitter accounts. In spite of this, the participants in this study used Indigenous Tweets (B(NS), T(NS), N(MS)). One participant, discussed her ambivalent relationship to her Twitter account:

B(NS): In reality I have a kind of ambivalent relationship to that Twitter account. Because I actually don’t want to Tweet, but I think it is important to, to Tweet anyway.

Author: Ok – and why?

…

B(NS): It’s good to retweet the things I think are important and that I think others should be aware of, so I tweet that. And it’s also a good way to cite yoiks, yoiks, like these kinds of rhythms that are very beautiful, poetic with beautiful words, and maybe more people see them.37

Other participants, located in Norway and Sweden, wanted to make elements of the Sámi culture and language visible. Their different locations influenced how they interacted. One communicated largely in a Norwegian dialect as she wanted to inform Norwegians about Sámi culture (T(NS)). Others, based in Sweden, were concerned about the lack of visibility of the language in their local environments, and wanted to make it visible on Twitter (N(NS) and J(NS)). In spite of this, the small number of other language users interacting in Twitter meant that the participants didn’t think it was as relevant as a space in which to expand their language networks (Ní Bhróin 2015, in preparation). This in turn influenced how they considered the relevance of Indigenous Tweets.

37 Yoiking is a traditional form of Sámi vocal music. For a detailed description see Graff (2014).
The Northern Sámi participants revealed that they used Twitter to make their language visible, while the Irish language participants were looking for opportunities to extend their networks and use the language in synchronous communication contexts. The relevance of Indigenous Tweets was therefore negotiated in different ways in each case. Furthermore, processes of domestication varied within cases according to the different cultural contexts in which language-users were situated. This indicates that the relevance of Social Media-Innovations is negotiated with regard to culturally specific needs in different social contexts.

3.2 Communication Capabilities

Indigenous Tweets does not present a radically new suite of communication capabilities. It employs a web crawler, ‘Crúbadán’, to gather statistical information about the users of relevant languages. It presents this information as a listed directory. Users can browse the directory to hyperlink to others that Tweet in their language. As a result, Indigenous Tweets is a complementary tool, relying on the communication capabilities of both Twitter and Crúbadán. It applies existing knowledge to design incrementally new communication capabilities.

‘Crúbadán’ was originally designed by Scannell in 1999 to support the development of an Irish-language spell checker. It downloaded websites and processed them to enhance the spell-checking database. It statistically identified languages using character trigrams, a process known as natural language identification. Recognising that Crúbadán could support other lesser-resourced languages on the Internet, Scannell worked with local language collaborators to train the crawler to recognise a further 144 languages by 2004 (Scannell, 2007, p. 1). The incremental development and expansion of Crúbadán's capabilities is central to the design of the Indigenous Tweets tool. It is why Indigenous Tweets can recognise 157 languages.

The design and development of these tools relies on Scannell’s competence as a computer scientist. It also relies on his engagement with projects to support lesser-resourced languages over time. This engagement included interactions with others that helped him to train Crúbadán to recognise their languages. As discussed in Section 3.1 above, these interactions also provided the impetus for Indigenous Tweets. This case
therefore demonstrates that communication capabilities have both social and technological elements and are incrementally developed.

Figure Three presents the simple design of the Indigenous Tweets Home Page. The site represents a domestication of Twitter’s communication capabilities based on Scannell’s personal design, and supported by the Crúbadán crawler. For example, the directory can be searched, according to username, total and percentage, because of Scannell’s desire to interact with people who communicate almost exclusively in Irish. Furthermore, the interface deliberately facilitates easy translation into any language. Only thirteen simple phrases require translation (Scannell, 2014a).

The communication capabilities of Indigenous Tweets are also constrained by those presented by Twitter. The directory only lists the top 500 Tweeters in each language. This arises from Twitter’s implementation of a 500-user limit on its list function. Furthermore, Crúbadán can only access and generate statistics that relate to accounts that operate openly on the Twitter platform. Accounts that implement ‘privacy settings’ cannot be accessed. Even if users allow Scannell, as an individual, to access their accounts, the crawler cannot process their data because of their appropriation of the more restrictive capabilities of the Twitter platform:

KS: *Its just a question of privacy really, you know, everything on Twitter, em, its public, and, *... I *can’t, just for technological reasons em, follow those accounts and put the statistics on Indigenous Tweets*

.....

KS: *Yeah, so just, eh, you know, it is a computer programme that collects the statistics. *... I *can read private accounts, but the programme can’t pick them up.*

The case of Indigenous Tweets therefore demonstrates that the communication capabilities of Social Media-Innovations are constrained by the capabilities of the range of actors and actants they involve.

Capabilities become relevant through interpretation and use. One participant (C(I)) discussed how he gradually appropriated different technologies to use the Irish language online in a blog post. He had used email lists, message boards, and a personal website.
He currently mostly blogs and uses Twitter. He discusses the different communication capabilities of these forums, comparing Twitter to a conversation in a pub, albeit one where the Irish language can be used more insistently. He enjoys the linguistic challenge of issuing short Tweets. The 140-character Tweet constraint in turn represents an incremental innovation influenced by the original constraints of SMS messages. In this blog post C(I) links to the Irish page on the Indigenous Tweets site, referring to it as the ‘Cúinne Gaeilge’ or Irish-language corner, on Twitter. This blog post demonstrates how communication capabilities evolve over time and are interpreted based on previous experiences.

Users in the Northern Sámi case have also been domesticating incremental developments in communication capabilities to communicate in their language. One site that was particularly relevant in this regard was Samenet. This was a project established by the Swedish Sámi Association in cooperation with the Sámi Education Centre in Jokkmokk in 1997. Some of the participants in this study used it to keep up to date with issues in Sápmi and to communicate in Northern Sámi. The platform decreased in relevance and was eventually removed because participants had migrated to Facebook. One of the participants discussed this:

_K(NS): We had a, before Facebook came, and before other Social Media, there was a kind of Internet programme, that was called Samenet. There were 3,000 members there at its highest. There were, it was a kind of large social network, where people posted, and it was really popular, and that was before, I believe it was before any of the other Social Media came. It was like our own Sámi Facebook (Laughs) for its time._
Author: Yes. And what happened with that?
K(NS): Em, when the larger Social Media came it was used less and less. And, it was a project that, I don’t know who had financed it. It was on the Swedish side. But it was quite large and they had their own servers and all of that strange stuff. ...
Author: So it’s most likely that those members are using Facebook now?
K(NS): Mmhm. And I used a lot of other Social Media before Facebook, Link and Nettby, and these Norwegian ones, Lunarstorm in Sweden. But now Facebook has become like a gathering point for everyone.

This extract indicates that the interpretation and domestication of communication capabilities evolve over time. It also points to the importance of Facebook (rather than Twitter) as a gathering point for users of the Northern Sámi language. The Indigenous Tweets tool is inscribed with and signifies communication capabilities that are aimed at creating new opportunities for minority language use. The interpretation of these capabilities is grounded in evolving understandings of previous capabilities and their domestication for minority language use.

3.3 Mediated Interaction

By presenting Twitter users in a directory format, Indigenous Tweets increases the visibility of minority language-users and enhances their capacity to interact. Two other aspects of Indigenous Tweets directly influence the participants’ capacity to act. These relate to the presentation of the directory in a ‘leader-board’ format, and the extent to which the innovation occurs in a hybrid media context.

The Leader-Board

As discussed under Section 3.2 above, Indigenous Tweets lists users according to those who tweet the most, and the percentage of tweets they post in a particular language. The lists for each language can be filtered and adjusted according to these categories. This ‘leader-board’ presentation style echoes practices in processes of Open Innovation, where users are ranked according to the amount or nature of their contributions to a specific project (cf. vonHippel, 2005). The participants state that this presentation style is motivational. In the Irish language case, a number of the participants discussed their
‘ranking’ on the list. The image below shows one participant Tweeting about her ranking, showing a sense of pride in being amongst the ‘leaders’ in the Irish language tweeting community.

Figure 5: J’s Tweet: Translation: on indigenous tweets I am number three (Source: Twitter, 2014)

In the Northern Sámi case, there was also a sense that awareness about the tool, and its leader-board presentation style, motivated people to Tweet in this language:

Author: Have you noticed by the way that there has been a large increase in the number of people using Twitter (in Northern Sámi) in the past two months?

...  
B(NS): Oh yes, but I believe that was after that link was published, ok about Indigenous Tweets, I believe in fact that was what did it, because I think people got a bit of a, like, ‘I also want to be up there.’ (Laughs)
Author: Yes.

B(NS): And I actually want to be on top of that list. (Laughs)
Author: (Laughs)

B(NS): But I am not and I need to Tweet much, much more to get there. (Laughs) But a colleague consoled me and said that I had a better percentage of Sámi language use than (Name) but even still (Laughs).

Author: (Laughs)
B(NS): It has become like that. I want to be on top.

The following Tweet was posted in August 2014 followed the publication and distribution of an article on NRK Sápmi about Top Tweeters in Northern Sámi as presented by Indigenous Tweets (Henriksen, 2014). Here one participant (T(NS)) notes that if the journalist had filtered the list according to the percentage of language use, she would have been included among the top tweeters.
Hybrid Media Contexts

Indigenous Tweets addresses a social need by generating statistical information about users on the Twitter platform. It therefore relates to a hybrid media context. Twitter is a commercial platform. It gathers data about its users and trades this with advertisers. As such, the interests of these two primary actants are not aligned. Some concerns, with particular regard to privacy, influence the extent to which users interact with the Social Media-Innovation process. Scannell refers to these in a blog post about creating visualisations of Tweets such as those presented in this article (Figures One and Two). These images are based on the geolocation of tweets posted on Twitter. Scannell notes that the data is aggregated and as a result individuals cannot be identified. At the same time he states that it is possible for people to disable the geolocation function through their Twitter accounts in order to protect their privacy (Scannell, 2014c). This tension between the implementation of more restrictive privacy settings and the ‘open’ communication capabilities of the Indigenous Tweets tool are also discussed under 3.2 above.

One participant used a pseudonym in Twitter because she considered it a good way to protect her privacy and to enable her to interact ‘freely’ with people. However, she ultimately stopped using Social Media because she felt that they were encroaching on her privacy. This participant had Tweeted a lot in Irish and was one of the ‘leaders’ on the Indigenous Tweets platform. However, once her account was deleted, these tweets and her ranking were no longer displayed. She discussed the potential impact of this for the Irish language community:

*D(I): Actually it occurred to me the other day about Indigenous Tweets. I hope I didn’t delete like five thousand Tweets in Irish and that Irish fell down the table*
or something like that. I saw (name) in the ‘Siopa Leabhar’ (a book shop). I know him to see and I met him, and he was like: ‘What happened to you?’ you know ‘You’re supposed to be beating me and taking first place’, and I was like oh shit, well… I hope I didn’t damage the Irish language when I left.

Although this participant demonstrates a sense of humour in terms of her decision not to use Twitter, her motivation relates to a serious concern about her privacy. This concern provides an important insight into the process of Social Media-Innovation as it relates to interactions between social actors and technological actants. The Indigenous Tweets tool relies on a number of compatible communication capabilities in hybrid media contexts. In spite of this, not all of the actors and actants involved have completely compatible interests. As a result, conflicts of interest can arise that influence the process of innovation. This interview extract also reveals that the alignment of interests in Social Media-Innovation processes can change over time.

**Section Four: Concluding Remarks**

In this article I develop the concept of Social Media-Innovation according to three central attributes. I explore how these attributes are manifest in the case of Indigenous Tweets. Social Media-Innovations must be considered relevant to address identified social needs. Their communication capabilities should support addressing these needs. They should also involve mediated interaction between users and technology that enhance society’s capacity to act.

I show that the relevance of Social Media-Innovations is negotiated in different contexts according to culturally specific needs. Indigenous Tweets is an international innovation that supports 157 languages. The social need to use each of these languages is manifest in different cultural contexts. I discuss how the Northern Sámi participants primarily aim to make their language visible in Twitter, while the Irish language participants want to expand their communication networks and generate new opportunities for synchronous communication. These needs influence the way in which Indigenous Tweets is considered relevant and domesticated.
As a Social Media-Innovation, Indigenous Tweets does not constitute a radical departure from the communication capabilities of the Twitter platform. Instead, it represents the application of existing knowledge to the design of incrementally new communication capabilities. It builds on the capabilities of the Twitter platform and the Crúbadán crawler. The participants’ interpretations of these capabilities are grounded in understandings that have developed through their incremental appropriation and use of evolving communication technologies. The case therefore demonstrates that incremental experimentation and learning support the design and use of communication capabilities.

Finally, I discuss how two aspects of interactions with regard to Indigenous Tweets influence the participants’ capacity to act. I reveal that users appropriate the ‘leaderboard’ capability and consider it to be a motivating factor for communication. I also discuss how the hybrid context in which Indigenous Tweets operates influences the Social Media-Innovation process. This includes actants with different interests such as Twitter and Crúbadán. Although the capabilities of these actants align to support Social Media-Innovation, they are designed for different purposes. This represents a dilemma for some of the participants in the study. The case therefore indicates that Social media-Innovation is influenced by the interests of the range of agents that interact in hybrid media contexts.

It must be noted that the findings of this study are limited by its micro-sociological nature. Further research is required to test their relevance in the context of other processes of Social Media-Innovation. This includes other cases where the communication capabilities of Social Media platforms are used to generate new opportunities for minority language use. In spite of these limitations, in delineating the concept of Social Media-Innovation, and analysing how its key attributes are manifest in the case of Indigenous Tweets, this article makes two important contributions to the field of Media Innovation Studies.
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References


Article Two

Small Pieces in a Social Innovation Puzzle?

*Exploring the Motivations of Minority Language Users in Social Media*


Abstract

This chapter explores the interactions of 21 individual minority language users in social media. It queries how they are motivated to communicate in these languages, and to what extent their motivations are ideological. Drawing on theories of innovation and psychology, three categories of motivations are established: intrinsic, self-determined extrinsic, and externally-determined extrinsic motivations.

Practices driven by self-determined extrinsic motivations were most directly aimed at protecting or promoting minority languages. The other categories of motivations drove a range of relevant practices, although some participants explicitly denied language-ideological goals. The chapter contributes to a theoretical understanding of how motivations can interrelate with specific contexts to produce socially innovative outcomes.
Introduction

Social Innovations are new practices for resolving societal challenges, which are adopted and utilized by the individuals, social groups and organizations concerned. (Zentrum für Soziale Innovation 2012)

Social media offer new opportunities for users of minority languages to communicate and interact. Individuals, language advocacy groups and organisations take advantage of these opportunities. Their practices result in socially innovative outcomes that contribute to resolving the societal challenge of protecting and promoting these languages. However, in the case of individuals, the practices are largely autonomous and uncoordinated. This chapter queries why individuals are motivated to communicate in minority languages in social media. Are they ideologically driven to protect and promote these languages, and thereby acting to resolve societal challenges? Or are other motivational factors involved? Furthermore, how do these motivations interrelate with the participants’ understandings of social media contexts? In exploring these issues, this chapter contributes to a theoretical understanding of how motivations can interrelate with specific contexts to produce socially innovative outcomes.

Social innovation is theoretically understood as a distinct kind of innovation that meets social needs and improves people’s lives (Mulgan et al. 2007). Although all innovation is fundamentally social in nature, social innovation is considered to result in social outcomes and to be directed at solving social problems (Hill et al. 2010). It involves new ideas about people and their interactions within a social system (Mumford and Moertl 2003). Its relevance increases in contexts where national administrations are faced with complex challenges that cannot be dealt with by state policies alone, and trends in outsourcing, privatisation and changes in political systems are implemented. It offers potential solutions to these challenges, envisaging new combinations of actors collaborating to address social needs (Nicholls 2010; Mulgan et al. 2007).

Language planning, and in particular minority language preservation, is an example of the kind of complex challenge that has traditionally been the responsibility of national administrations. It is, however, recognised as being reliant on an interaction between top-down and bottom-up policies and practices, and on the participation of a range of actors, for success (Fishman 2001; Moriarty 2011). Minority language research has focused on efforts to protect these languages, including the introduction of the
Indigenous and Tribal Peoples Convention (no. 169) of the International Labour Organization (1989) and the European Charter for Regional or Lesser-Used Languages (1992) (cf. Guyot 2004). These efforts reflect a movement of these issues to a new domain of international laws and regulations (Pietikäinen et al. 2010). The challenge of minority language preservation at an individual level is therefore an interesting case in the context of understanding social innovation in practice. This chapter examines the practices of individual Northern Sámi and Irish language users in this context.

In discussing collaborative innovation processes, Wittke and Hanekop (2011) refer to two categories of innovation distinguished by their governance mechanisms. Both involve more or less structured innovation processes aimed at shared goals of producing products or services. The first category includes ‘pure models’, where largely autonomous actors collaborate within new governance structures to produce products or services (i.e. Open Source Software or Wikipedia). The second includes ‘hybrid models’, taking place at least partly within traditional corporate structures (i.e. gaming companies working with modders). These categories are referred to collectively in this paper as ‘collaborative innovation’.

This article examines a third category of innovation that is related to, but distinct from, collaborative innovation. The socially innovative practices of individual minority language users in social media occur autonomously, independent of governance mechanisms. Collaboration, whether to achieve an articulated shared goal or to create shared products or services, is not central to these practices. This category of innovation is therefore referred to as ‘autonomous social innovation’. The motivations driving these practices have not previously been examined. This chapter aims to address this gap by building on understandings of motivations as outlined in theories of collaborative innovation, and posing the following research questions:

- How are individual Northern Sámi and Irish language users motivated to participate in autonomous social innovation practices in social media?
- How do these motivations interrelate with the participants’ understandings of social media contexts?
- How can this contribute to a broader theoretical understanding of motivations in autonomous social innovation practices?
The first section of this chapter outlines the methodological approach applied to addressing the research questions. The second section presents the theoretical background and relevant concepts. The third section presents and discusses the research findings. The conclusions of the chapter are presented in the fourth section.

Section One: Methodology

Herring (2004) notes that online communication practices leave textual traces that are more accessible to scrutiny and reflection than is the case in ephemeral spoken communication. This is particularly relevant in the context of minority language communication that is traditionally marginalised in the public sphere (cf. Lane 2011; Guyot 2004). The textual traces of minority language users in social media spaces can therefore be analysed to gain insights into their motivations for participating in autonomous socially innovative practices. The Northern Sámi and Irish languages are categorised as “definitely endangered” by Unesco (2012, online). Building on Androutsopoulos’s Discourse Centred Online Ethnography (2008), a multiple case study incorporating ethnographic and discourse analytical methods was implemented to compare and analyse the practices of individual Northern Sámi and Irish language users (Yin 2009). The multiple case-study design was also implemented to identify potential hidden research assumptions or inferences on the part of the researcher, an Irish language speaker from the Republic of Ireland. These may arise from close involvement with, and understandings of, the historical, social, political and ideological aspects of this language case.

A purpose-driven sampling process was implemented to identify 11 active Irish language participants. In the Northern Sámi case, purpose-driven sampling was combined with convenience sampling to identify ten active participants. A mixed sampling approach was necessary in this case as there were fewer Northern Sámi participants interacting in openly accessible spaces in social media. The convenience sampling process was facilitated by a Sámi research assistant. All of the participants’ interactions in social media were recorded for a minimum six-week period. Understanding these texts was supported by the broader ethnographic methods, including online and offline interaction with the participants.
Borrowing from Self-Determination Theory (SDT), a model for analysing the motivations driving the participants’ communication practices was constructed (Ryan and Deci 2000:71). The construction of this model is discussed in detail in the next section. In keeping with SDT, the model separates the innate individual needs for competence, relatedness and autonomy from the categorisation of Intrinsic and Extrinsic motivations. The application of this model facilitates a systematic analysis of the interrelation between individual needs and motivations in specific contexts.

This methodology differs from previous empirical studies of motivations in collaborative innovation processes. These predominantly used online questionnaires or a combination of qualitative interviews and questionnaires to establish motivations amongst a representative sample of participants (cf. Hars and Ou 2002; Hertel et al. 2003; Lakhani and Wolf 2005; Blätel-Mink et al. 2011). The more exploratory nature of the present study allowed for greater intersubjective reflection and discussion, and enabled findings from multiple sources of data to be cross-analysed, thereby facilitating the reconstruction and analysis of specific contextual settings (Bruhn Jensen 2011; Geertz 1973).

In order to protect the privacy of the participants to the greatest extent possible, they are referred to in this chapter by an altered first initial only. Further- more, although the data source is identified, direct quotes from social media platforms, emails and interviews have been translated, and the original quotes are not displayed. The Northern Sámi translations were undertaken by a Sámi research assistant. The remaining translations were undertaken by the author.

**Section Two: Motivation**

Motivations in collaborative innovation have been examined from a range of perspectives, including behavioural science, psychology, economics, sociology and media studies (cf. Rafaeli and Ariel (2008) on studies of motivations in Wikipedia). These studies have queried why users contribute to these processes when their participation does not lead to clearly tangible rewards. They have found that a mix of extrinsic, intrinsic and social motivations are involved. Earlier studies emphasised the
role of extrinsic motivations such as pay, career, technical know-how, reputation and product use (cf. Hars and Ou 2002; Hertel et al. 2003; Lakhani and Wolf 2005 on Free or Open Source Software; von Hippel 2005 on “user-centred innovation”). However, more recent research has also emphasised the importance of intrinsic and social motivations. Intrinsic motivations refer to enjoyment, creativity, self-fulfilment, interest and mastering skills. Social motivations refer to fun, helping others, communicating, reputation and influence, thereby incorporating dimensions of both intrinsic and extrinsic motivations (cf. Bruns 2007 on “produsage”; Wittke and Hanekop 2011; Blätel Mink et al. 2011 on hybrid firm-driven collaborations).

Where motivations are addressed in social innovation theory, it is envisaged that a combination of intrinsic and extrinsic motivations is required to drive these processes. Mulgan et al. (2007:44) note that motives may include material incentives but will “almost certainly” include motivations such as recognition, compassion, identity, autonomy and care. This is related to the understanding that social entrepreneurial organisations are less likely to have economic or financial incentives available to motivate participants and therefore must emphasise altruism, compassion, volunteerism and social value creation instead (Bloom and Smith 2010:131). This is in line with the findings of earlier studies of prosocial behaviour where appealing to the beliefs and values of volunteers was found to be an important motivational factor (cf. Clary et al. 1998).

The differentiation between the categories of intrinsic, extrinsic and social motivations is not significantly developed or consistently applied in these studies. Furthermore, how these motivations interrelate within particular collaborative innovation contexts is not systematically explored. For example, Blätel Mink et al. (2011) find that the mix of intrinsic and extrinsic motivations depends on the character of specific collaboration processes, but the nature of this interrelationship is not further explored.

Of particular relevance to this study, due to its focus on the autonomous practices of individuals, is Self-Determination Theory (SDT) (Deci and Ryan 1985; Ryan and Deci 2000). A model for analysing motivations that differentiates between intrinsic and extrinsic motivations according to their relationship to specific practices was
constructed using this theory. Intrinsic and extrinsic motivations are positioned at both ends of a continuum, ranging according to degrees of autonomy. Intrinsic motivation drives individuals seeking novelty, challenges or enjoyment in practices undertaken for their own sake and without external pressure. In contrast, extrinsic motivation drives activities aimed at outcomes that are separable from specific practices. Most human activities are therefore considered to be extrinsically motivated. Extrinsic motivation is also considered to undermine intrinsic motivation as rewards, deadlines or other external pressures undermine individual autonomy (Ryan and Deci 2000:71). This model enables a more structured analysis of motivations than that which has been applied in previous studies of collaborative and social innovation.

SDT also provides a solution to the fuzzy category of social motivation identified above. In studies of collaborative innovation, this category is understood to have either or both intrinsic and/or extrinsic dimensions. SDT separates three innate, and therefore continuously present, individual needs for competence, relatedness and autonomy from the categorisation of intrinsic and extrinsic motivations (Ryan and Deci 2000:72). Autonomy is related to the desire to exercise volition in one’s own life, without being necessarily independent of others (Ryan and Weinstein 2010). Relatedness refers to the need to interact and connect with others. Competence refers to a desire to control outcomes and experience mastery. The social motivation category is subsumed in this model under the need for relatedness. These innate needs interact with intrinsic and extrinsic motivations to varying degrees in particular contexts. As practices driven by extrinsic motivations increasingly fit with an individual’s values and beliefs, they fulfil their needs for autonomy, relatedness and competence (Ryan and Deci 2000:72). This model therefore facilitates a systematic analysis of the interrelation between individual needs (including social needs) and motivations in specific contexts.

Building on Ryan and Deci’s continuum, and based on the range of motivations observed during the study, two categories of extrinsic motivations were constructed. The categories are based on the extent to which the participants’ motivations reflect autonomy. The categories are ‘self-determined’ and ‘externally-determined’ extrinsic motivations.
Practices driven by self-determined extrinsic motivations have been fully integrated with the beliefs and value systems of individuals. These include practices to use minority languages in new contexts and to encourage or facilitate minority language use. Participants perceive these practices as being undertaken of their own volition. The goals of preserving and promoting the relevant minority languages are integrated with the participants’ beliefs and value systems.

Practices driven by externally-determined extrinsic motivations are perceived as resulting from more external pressures than is the case with self-determined motivations. Certain participants perceive their language use as according with contexts of communication rather than with political ends. All participants actively communicate in minority languages in social media. However, they do not all acknowledge or prioritise the goal of protecting or promoting these languages. Other participants engaged in practices using minority languages skills to develop and promote professional careers. In these contexts, the minority language communication is valued and recognised by the participants, but is less integrated with their core belief and value systems.

In summary, this study explores the motivations of individual minority language users communicating in social media according to the categories of intrinsic and extrinsic motivations. Extrinsic motivations are further sub-categorised as self-determined and externally-determined motivations. This enables a structured analysis of these motivations according to the extent to which they are autonomous. The interrelation between these motivations and the innate individual needs for competence, relatedness and autonomy also enables a systematic analysis of individual perceptions of specific contexts and how these impact on their motivations.
Section Three: Findings

This section presents the findings of the study according to the categories of (a) intrinsic motivations, and (b) extrinsic motivations. Extrinsic motivations are further sub-divided into two categories referring to the degrees of autonomy observed during the research process: (i) self-determined, and (ii) externally-determined. The aim of this discussion is not to present absolute or essential interrelationships between particular individuals, practices and motivations. It is rather to establish categories of motivations arising from complex, multi-dimensional interactions. It is also an attempt to systematically explore the interrelation between these categories and individual needs for competence, relatedness and autonomy in particular contexts.

(a) Intrinsic motivations

Some of the participants demonstrated intrinsic motivations in their interactions with social media. In particular, participants developed innovative approaches to language learning in these environments. They engaged in these activities for their own sake, and because they satisfied their needs for competence and autonomy. The need for relatedness was less relevant to the intrinsic motivations observed. However, participants understood social media as environments where they could draw on networked resources to achieve their intrinsic goals.

One participant described by email how he used the Twitter platform to participate in a “kind of immersive education” project. (N: Irish). His understanding of Twitter as an environment where he could draw on available resources in terms of other platform users who were competent in the Irish language to increase his own skills reflects how his needs for competence, autonomy and relatedness could be satisfied in this context. He marked Tweets for translation with the hashtags #CaD (What) and #Gaeilge (Irish), for example: #CaD “there’s a nip in the air” #Gaeilge (N: English/Irish). Participants subscribing to his feed responded with translations. One participant, when thanked for providing assistance on the Twitter platform, adapted an Irish proverb to explain: “The networked people depend on each other’s links” (B: Irish). This observation points to the fact that although the motivation to learn is intrinsic, the communication practices undertaken to realise these motivations also address a need for relatedness.
Another participant grew up in Northern Ireland where, in contrast to the Republic of Ireland, Irish is not a compulsory subject or, in most cases, taught in schools. She described by email how she used Irish in Twitter to develop language competence: “I think my interest in Twitter increased significantly when I understood that it was a way to practise my Irish when I was starting to learn. I remember writing things like ‘I am drinking wine. I am dancing on the table’. You know, practising a language I didn’t know.” (T: Irish).

However, as this participant’s competence developed, her motivation to use the language in Twitter changed from purely intrinsic (striving to learn, master new skills or apply talents in practices undertaken for their own sake) to more extrinsically focused. She notes by email how now:

I regard my usage more as a result of my bilingual life (T: Irish).

This demonstrates the fluidity of the participant’s motivations according to a changing understanding of her own linguistic competence, and her increasing integration of the language in her linguistic repertoire.

One of the Sámi language participants described via Facebook Messenger how he is motivated both creatively and in terms of developing language skills to communicate through blogging.

(I) think that I learn a lot from blogging. I want to find positive representations of myself. I want to vary and I do not always want to write about the same thing. I want to feel that I am a versatile person when I look at the blog. (W: Swedish).

He regularly reflects on language use in his posts, as can be seen from this example:

Linguistically, I notice that all Joiking4 titles on this particular album are in the accusative (or potentially possessive) case. On other CDs the title may have been ‘Grandmother’, but on this CD the title is ‘Grandmother’s’ or ‘The Grandmother’ in the accusative case. I don’t know how I should interpret this, I must think about it a bit. (W: Northern Sámi).

This participant understands the blogging environment as facilitating this kind of language learning project. He reflects in Facebook Messenger:

I have time to look up words and try to find ways of expressing things. One has more
time when one sits and writes a text alone compared to when standing and talking to someone. I think blogging is one reason that I have learned Sámi as well as I have. (W: Swedish).

The kind of asynchronous communication facilitated by blogging is also characteristic of Twitter and aspects of communication on Facebook. It facilitates overcoming the difficulty of losing face in synchronous interaction experienced by language learners or language users who are uncertain of their competence. These media environments thereby enhance the participants’ sense of competence. In each of the examples discussed here, participants also have a strong sense of autonomy in terms of the extent to which their language-learning projects are conducted of their own volition. Finally, the participants’ actions also imply an understanding of social media environments as supporting their needs for relatedness, although this need is less relevant to their intrinsic motivations.

(b) Extrinsic motivations

All extrinsic motivations relate to goals that are separate from or extend beyond particular practices. Extrinsic motivations are sub-categorised in this section according to the extent to which they relate to autonomous practices. Greater autonomy is evident in motivations that are integrated with the participants’ beliefs and values.

(i) Self-determined extrinsic motivations

A number of the participants engaged in practices in social media environments that were extrinsically motivated but reflected full autonomy. These included practices to use minority languages in new contexts and to encourage or facilitate minority language use. These practices were conducted by individuals of their own volition and integrated with their beliefs and values in terms of the importance of the relevant languages. These motivations were clearly related to satisfying the participants’ needs for competence, relatedness and autonomy. The participants’ understandings of particular contextual environments as supporting the satisfaction of these needs were also central to the implementation of their practices.
One participant described in Facebook Messenger how he understood blogging as a tool to broaden the spheres in which the Northern Sámi language is used online. He also recognised blogging as a way to demonstrate that using the written version of this language could be associated with fun or more mundane contexts:

*I thought there were very few Sámi language texts on the web, and those that did exist were not written by desire, but more out of duty – for example, some governmental pages translated into Sámi. It was a driver for me, to try to write on various topics, so that if someone were to google a Sámi word they would find a text where the word is used and also see if it is spelled correctly. (W: Swedish).*

His blog describes a wide variety of topics from his personal life, for example reading, jogging and music. The following is one of approximately 2,000 posts he has written:

*When the dog barks: The dog barks sooo. I don’t know how it manages. Doesn’t it get tired? It must be a puppy. It doesn’t know about relaxing and peace of mind. I’ve started to read again. Read four pages today. I’m content. It’s special work, reading. It needs a lot of concentration. It’s a full-time job to know others’ thoughts/experiences. How that dog barks! (W: Northern Sámi).*

The participant uses the multimodal capacities of blogging to post combinations of text, photographs, videos and links. His writing style is deliberately conversational. Shifting between topics signifies the fact that the Northern Sámi language is used actively in his stream of consciousness. This participant’s motivation to demonstrate the relevance and functions of the written Northern Sámi language is driven by his belief in the importance of this language. The practices are aimed at achieving the outcome of normalising the Sámi language in blogging contexts. The implementation of these practices depends on the participant’s understanding of the extent to which he can satisfy his needs for autonomy, competence and relatedness by blogging.
Facilitating Minority Language Communication

Another participant discussed his understanding of the potential of social media environments to support the development of strong minority language communities, particularly where these communities have traditionally faced geographical obstacles to interaction. He considers the Internet to offer an immersive environment for Irish language speakers who have traditionally been separated according to Gaeltacht regions or diasporic communities. He stated in email correspondence:

_The Internet is a kind of ‘virtual Gaeltacht’ – where a person can spend their entire day using Irish, if they wish to. (L: Irish)._

Thus, social media environments offer the potential to support the basic needs for relatedness, competence and autonomy amongst users of minority languages. This participant has been active in localising and designing tools based on Open Source Software to optimise minority language communication for the past 20 years. One example of these tools categorises and ranks users of Twitter according to language use and links to their profiles to facilitate connectivity. Another tool is a ‘greasemonkey’ add-on script for Firefox that translates the Facebook interface to any language. This means that minority language users do not need to rely on Facebook’s own translation application to interact with the platform in the language of their choice. This participant believes that everyone has a right to use the language of their choice, and is motivated to facilitate this in social media contexts. This extrinsic motivation is therefore internalised and congruent with his beliefs and values. He started working with these projects because of his awareness of the issues he faced as an Irish language speaker. He states that there are ‘foolish technical reasons’ that people use default majority languages on the Internet, related to issues such as an absence of keyboards, localised software or terminology. He maintains in email communication that these problems are easily solved:

_I’m not a linguist, a sociolinguist, or a politician – I’m a computer scientist! Therefore, I work in the field I understand. ... This doesn’t equate to ‘saving’ a language of course, but it’s a small piece in a big puzzle. (L: Irish)._
This comment demonstrates the importance of the participant’s understanding of how his particular competence relates to the broader task of protecting and promoting minority languages.

On a more individual scale, one of the Sámi participants declares in both her Twitter and Facebook profiles that her political views are ČSV. These three letters were adapted as a symbol of pride in the Sámi identity and a commitment to Sámi political issues during the 1980s. This participant acknowledges in Facebook Messenger that part of her motivation in using Twitter is to promote the Northern Sámi language:

_I hope that my followers (who know a little Sámi) are so curious that they will try to understand what I write, and in that way learn more Sámi. (B: Norwegian)._

Although she perceives Facebook as a more personal space due to the number of her family and friends that are present there, her motivations in using the Sámi language are also somewhat political. In Facebook Messenger she notes:

_In Facebook the most important thing is that I prefer to communicate in Sámi with my friends. But here also of course language politics come into play. There are far too many people who know how to write and read Sámi but choose Norwegian, so I write in Sámi so that they are exposed to at least a little bit of Sámi in their everyday lives. (B: Norwegian)._

This comment demonstrates an understanding on the part of the participant that persistence is required in order to elicit communication amongst competent users of the Northern Sámi language. The participant harnesses the fact that social media facilitate asynchronous communication and allow for time to be taken to interpret and react to her messages. By insisting on communicating in Northern Sámi, this participant is attempting to implement a positive context for her friends, family and subscribers to communicate in.

Some of the participants interact with social media in deliberate ways to encourage the use of minority languages. Their practices represent new strategies, whether acting to normalise minority language use in new contexts, to eliminate technical reasons that
these languages cannot be used in social media, or to insist on using these languages when communicating with friends and followers. These practices are driven by extrinsic motivations as they are aimed at achieving particular outcomes that extend beyond the practices themselves. However, they are autonomous, as they are inseparable from the participants’ beliefs that protecting and promoting minority languages are important. They are also linked to the participants’ understandings of social media as environments that support the achievement of their goals, in addition to their needs for competence, autonomy and relatedness. The practices driven by this category of self-determined extrinsic motivations could most readily be understood as aimed at achieving socially innovative outcomes.

(ii) Externally-determined extrinsic motivations

All of the participants actively used minority languages in social media contexts. Importantly however, they did not all acknowledge or prioritise the goal of protecting or promoting these languages. Some were keen to underline the fact that their language use in social media was normal, and did not want to be considered ‘activists’. Minority language communication was therefore valued and recognised by the participants, but less integrated with their belief and value systems. In contrast with the practices driven by self-determined extrinsic motivations, these practices are considered to have socially innovative outcomes, rather than being aimed at achieving socially innovative goals.

Context Driven Language Use

Certain participants perceive their language use as according with contexts of communication, rather than with political ends. These contexts included a desire to express things efficiently or to communicate with particular people. Social media were understood as environments that supported the achievement of these communication goals. Relatedness was therefore a more relevant need in these contexts than autonomy or competence. One participant, when asked what using the Irish language in social media meant to him, noted by email that:

It has never occurred that I have not been able to use the Irish language online (or anywhere else!) so it’s hard to answer that. Even though I love and respect the language, I don’t see myself as an activist or anything like that. I speak the language, in my opinion, because I am Irish and because I am interested in languages generally. ...
see languages purely as tools or methods to communicate with other people. (T: Irish).

This comment refers to a broader discourse where the label of an Irish language activist or ‘Gaeilgeoir’ is viewed negatively. This participant explained in an interview that the term is associated with people who are cranky, irritable and do not portray a positive image of Irish language speakers. The comment also demonstrates the extent to which some of the participants accept social media as ‘social facts’ or normal contexts in which to communicate using their available linguistic repertoires (Blommaert and Backus, forthcoming). In terms of motivations, a recognition and conscious valuing of the minority languages is evident. However, full congruence of achieving the goal of protecting or promoting minority languages with the participant’s internalised beliefs and values is not apparent.

One Sámi participant discussed in an interview an ideological tension between the desire to promote a language and the desire to promote and support a broader community culture. This participant is aware that a number of people who identify themselves as Sámi don’t speak Sámi languages. Due to the impact of this larger discourse related to the extent to which this culture is threatened, she is more concerned with expressing social solidarity with, rather than alienating, these people:

*I write in Norwegian because I know more people will understand what I am writing, even if it might feel more natural to write in Sámi. It feels more important to reach people than to insist on using a particular language. (T: Norwegian).*

The participant also uses social media to inform people about her culture, providing a perspective that may not otherwise be accessible. She believes that Norwegians learn very little about Sámi culture, beyond stereotypical depictions. The practices of this participant may imply that a motivation that is externally controlled can be deprioritised if it comes into conflict with other more internalised motivations.

Alia (2010) has noted how what she terms ‘new media’ provide an alternative discursive framework for indigenous people to validate perceptions that mainstream media and authorities seek to render illegitimate, and how this use can be embedded in wider social networks to form alternative social possibilities. The practices of these
participants, in using their languages in particular communication contexts, contribute to these alternative discourses.

**Career-Related Motivations**

Some of the participants engaged in minority language communication practices to develop and promote professional careers. These participants combined their minority language skills and interpretation of the potential of social media environments towards this end. The need for competence was therefore most relevant to these motivations. Interactional sociolinguists have developed the concept of ‘sociolinguistic scaling’ to refer to how languages and linguistic resources are hierarchically ordered. They argue that access to discursive re- sources iconises and indexes particular levels on scales that, depending on the context, can alter the functions of languages (Moriarty 2011; Blommaert 2007; Pietikäinen 2010). The practices of these participants, reflecting motivations to develop their careers, also contribute to the promotion of the functionality of their languages in socio-economic contexts.

One participant expressed his motivation in a blog post about minority languages:

*I was able to launch my career in the media because of my ability to speak Irish. ...Of course, more people will pay attention to TV and radio shows in English than Irish. That’s totally understandable, but it doesn’t take away from the fact that media is media, and honing your skills – regardless of the language one works in – will improve one’s career prospects. (T: English).*

Implicit here is the understanding that competence in Irish facilitates career development in media contexts in Ireland to a greater extent than monolingual English language competence does. This demonstrates that the Irish language has a socio-economic value for the participant as part of a broader multilingual environment. The participant is not acting on a motivation to promote the Irish language alone, but to promote his competence in using the language to the extent that it will help him to develop a career in multilingual media contexts.

During the study, this participant arranged a number of Irish language events including a weekly short-film club, a conversation group and a symposium about blogging in Irish. He also participated in a local festival discussing how competence in the Irish
language could enhance career prospects. He promoted these events in social media in Irish and English, demonstrating an understanding of these media as effective spaces for increasing the visibility of events directed at particular communities of interest.

Another participant uses her blog to post in Irish about topical, language-related issues. She promotes her blog on Twitter and Facebook, drawing attention to the fact that the posts are in Irish. During the course of the study she participated in a radio interview about her blog and promoted this on Facebook:

Folks, I’m being interviewed on BBC Radio Ulster tomorrow night @7pm on ‘Blas’ about blogging as Gaeilge & social media ... I edit & write most of the content for (Name of blog) a little venture that (Name of Colleague) & I set up last year ... it’s going to make us millions one of these days ... millions! So tune in tomorrow if you can! (T2: English).

This status update reveals a motivation linked to career development related to the creation and use of the blog. However, it also reveals that the language has a potentially ambiguous value for the participant. The blog is written in Irish, the interview about the blog will take place in Irish, but these media events are promoted to a broad network of friends and followers with an ironic comment as to their value. The Irish language does not appear to be valued as highly as English on the participant’s socio-linguistic scale.

The participant also refers to the fact that she will be interviewed about ‘blogging as Gaeilge’. This assumes a sufficient level of competence on the part of the intended readers of the status update to understand that she will be discussing ‘blogging in Irish’. Although some level of competence is assumed, the status update is written predominantly in English. This is either based on an assumption that the majority of readers would not understand the status update if it was written entirely in Irish, or based on an assumption that Irish language communication may not be valued highly by the intended readers. At the same time, the participant is promoting a clear message about the extent to which Irish language competence is helping her to develop her career, potentially altering the function of the language. This demonstrates the extent to which the meaning and value of the language is constantly negotiated in communication.
One of the Sámi participants acknowledges similar motivations in an interview: 

*Understanding Sámi is a door opener. Depending on what you want to work with, it can be a great bonus to say that you also understand Sámi, or even that you can read or write in the language. (T: Norwegian).*

This comment, although reflecting a socio-linguistic value for the Northern Sámi language, reveals an understanding of this value in relation to another language, positioned higher on the hierarchical socio-linguistic scale. This other language may have a determining role in whether the Sámi language has a value or not. This participant notes in an interview how she is explicitly aware of her role in promoting positive ideological messages about the language:

*If I could wish for one big thing, it would be to change the way we talk about the language. It doesn’t help to talk about how close we are to the catastrophe. We should instead discuss the possibilities and emphasise the positive things we have. Hopefully that will help to create a desire to use the language. ... Instead of threatening people by saying ‘If you don’t speak it, it will die out’, we should be spreading enthusiasm. (T: Norwegian).*

These participants engage in social media practices to demonstrate their linguistic and professional competence. Their practices result in outcomes that promote minority languages, however this goal is externally perceived. In promoting their careers, these participants also promote positive ideological messages about the socio-economic value and functions of their languages. The participants can be understood to be acting as role models promoting the fact that they have careers not in spite of but because of their competence in minority languages. These practices can also be considered to have socially innovative outcomes, rather than being focused on achieving a particular, socially innovative goal.

**Section Four: Discussion and Conclusion**

This chapter explored why individuals were motivated to communicate in minority languages in social media and how these motivations interrelated with their understandings of specific contexts. Minority language communication in social media
reflects a change in social practice that is implemented and negotiated largely at an individual level. This communication also results in the socially innovative outcome of protecting and promoting these languages. A multiple case study was implemented to examine the motivations of active minority language users. The textual practices of these individuals were recorded and analysed using a combination of discourse analytical and ethnographic methods.

In identifying autonomous socially innovative practices as a separate category of innovative behaviour, this study has contributed to a broader understanding of social innovation. It has demonstrated that motivations driving these practices are grounded in varying degrees of individual autonomy. By building on previous studies of motivations in collaborative innovation and Self-Determination Theory, a structured model for analysing motivations was developed. This model differentiated between intrinsic and extrinsic motivations based on their relation to the outcomes of specific tasks. It also enabled the exploration of two separate categories of extrinsic motivations based on the extent to which they reflected individual autonomy. The interrelation between these motivations and the innate individual needs for competence, relatedness and autonomy was also systematically explored.

Intrinsic motivations drove creative, bottom-up, innovation practices. These practices were contingent on the participants’ understanding of social media environments as effective spaces for language learning, based on the asynchronous communication capacities of the relevant media and the potential to connect with other language users for support. Since practices driven by intrinsic motivations were undertaken for their own sake, they were not aimed at socially innovative goals. Participants’ implementation of these practices related to their understanding of social media environments as contexts that supported their needs for competence, autonomy and, to a lesser extent, relatedness. Consequently, ensuring that appropriate conditions and supports are provided to harness intrinsic motivation, in contexts that support competence, autonomy and relatedness, may support the achievement of socially innovative outcomes. The motivation to learn was also observed as being particularly fluid as it shifted according to the participants’ increasing linguistic competence.
‘Self-determined extrinsic motivations’ were grounded in individual beliefs that minority languages should be protected and promoted. These motivations extended to goals beyond specific practices, such as encouraging or facilitating minority language communication. The related practices addressed the participants’ needs for competence, relatedness and autonomy. They were autonomously implemented and required individual competence and understanding of social media environments to create technological infrastructure or to use and adapt available technological tools to achieve socially innovative outcomes. They also aimed at satisfying the participants’ need for relatedness as they sought to support communication between minority language users.

‘Externally-determined extrinsic motivations’ drove practices that resulted in socially innovative outcomes. These practices were grounded in an understanding of the potential of social media to contribute to achieving externally controlled personal goals. In these cases, individuals valued minority language communication, but were keen not to be considered as ‘activists’ trying to protect or promote the languages but rather as ‘normal’ individuals. The need for relatedness was more relevant than those of competence or autonomy to the implementation of contextually driven communication practices. However, in the case of practices aimed at career driven goals, the need for competence was most relevant. These practices spread positive ideological messages about the socio-economic value and functions of the participants’ languages, based on their understanding of the value of these languages for their careers.

Self-determined extrinsic motivations were therefore exceptional in driving practices that were directly aimed at protecting or promoting minority languages. The practices driven by other categories of motivations were undertaken to achieve a range of goals. In some cases, the participants undertaking these practices did not want to be associated with language-ideological goals. However, these practices also resulted in socially innovative outcomes. Consequently, such outcomes arise from the implementation of practices negotiated largely at an individual level and driven by a range of motivations. The complex contextual interrelations between individual needs for competence, relatedness and autonomy, and a range of intrinsic and extrinsic motivations, should therefore be considered relevant to the implementation and analysis of social innovation processes more generally.
Notes

1. The publication of the Arfe Report (1984) brought about the foundation of the European Bureau for Lesser-Used Languages. This in turn produced the European Charter for Regional or Minority Languages (1992). In 1988 the Broadcasting Across the Barriers of European Languages (BABEL) organisation was merged with Measures Pour Encourager le Development de l’Industrie Audiovisuelle (MEDIA) to provide support for multilingualism in the audiovisual sector. The European Convention on Human Rights (1950) and the Universal Covenant on Civil and Political Rights (1966) were foundational here.

2. The case studies were conducted over a 12-month period, between September 2011 and August 2012.

3. Openly-accessible spaces are accessible once connected to the Internet or with minimal additional effort, i.e. open blogs or open Twitter profiles or Facebook profiles that are accessible purely by establishing an account with the service. For the purposes of illustration, at the beginning of the study in August 2011, there were over 2,000 Irish language users on Twitter, compared to 59 Sâmi language users (source IndigenousTweets.com).

4. Joiking is a traditional form of Sâmi singing.

5. A Gaeltacht is a region in Ireland where it is aimed to preserve the Irish language as the primary spoken language. This aim has largely not been realised, with successive population census results revealing declining numbers of Irish speakers in these regions.

6. A number of slogans were constructed using the three letters, for example “Čajeheakkut Sami Vuonja” (“Show Sâmi Pride”) or “Čåkkejekket Sâmiid Vuitui” (“Gather the Sâmi to be Victorious”).
References


Article Three:

Lost in Space? Reaching-out to use minority languages in Twitter

This article is in review.

This article explores how users of minority languages create new opportunities to communicate in Twitter. These users reach other users to communicate with, thereby addressing a social need. The concept of ‘reach’ usually implies capacities of audience size and location. However, it also applies to the social capability of navigation. I argue that understanding how this capability is facilitated supports an analysis of how Twitter can be used to create new opportunities for minority language use. I refer to an observational study that was conducted over eighteen months. In highlighting this social capability of reach, I develop a useful tool that supports broader studies of media innovation and activism in Internet contexts.

Keywords: reach; minority languages; Twitter; media innovation; activism
Lost in Space? Reaching-out to use minority languages in Twitter

![Commander Hadfield's Tweet from Space.](image)

*Figure 1: Commander Hadfield's Tweet from Space. (Twitter: 2014)*

*Tá Éire fiorálainn!* Land of green hills and dark beer. With capital Dublin glowing in the Irish night.

Commander Chris Hadfield, International Space Station, 18 February 2013 (Twitter, 2014)

**Introduction:**

Orbiting above Dublin on 18 February 2013, Commander Chris Hadfield of the Canadian Space Agency posted this tweet. With that, he became the first person (on public record) to extend the use of the Irish language to space. The first sentence, written in Irish, means ‘Ireland is very beautiful’. Nine days later, it had been retweeted 5,199 times. It had reached and engaged Twitter users by establishing a linguistic and cultural connection with them.

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38 Translation: Ireland is very beautiful!
This Tweet is presented as a metaphor to introduce the question of how reaching minority language users in Twitter can create new opportunities to use these languages. Why did Commander Hadfield choose to Tweet in Irish, a language used by only 7,426 of 284 million Twitter users (Scannell, 2014a)? Who was he attempting to reach, and why did he consider Twitter to be a relevant platform in which to do so?

The Irish and Northern Sámi languages are minority languages. The potential for individual communication in Social Media presents new possibilities to use these languages, and consequently to address social challenges of language normalisation and maintenance (cf. Honeycutt and Cunliffe, 2010; Jones and Uribe-Jongbloed, 2013; Pietikäinen and Kelly-Holmes, 2011). Reaching others to create new opportunities to use these languages therefore address a social need.

The concept of ‘reach’ has been developed in audience studies (cf. McQuail, 2010) to analyse capacities of audience and network size, location and interconnectivity. However, I propose that ‘reach’ is also a social capability that is essential to mediated communication. It is the process of navigation that leads to connectivity and engagement. I differentiate between this social capability to navigate Social Media platforms and related concepts of ‘connectivity’ and ‘engagement’ (cf. Bennett and Segerberg, 2012). These latter concepts rely on capabilities of reach in order to be realised. The capability of reach therefore implies the skill to search for one or more potential third parties in order to connect or engage with them.

The predominantly open nature of communication on the Twitter platform represents an interesting case to explore how capabilities of reach are facilitated or constrained. 500 million tweets are posted every day (Twitter, 2014). Minority language users represent very small groups in this vast communication context. They need to be able to reach
other language users in order to engage with them. This article therefore focuses on the following research questions:

- How do users of the Irish and Northern Sámi languages reach other users in Twitter to create new opportunities to communicate in their languages?

To address the research question, an 18-month ethnographically inspired observational study was conducted involving twelve Irish- and ten Northern Sámi-language users. The participants’ interactions in Twitter were observed to explore how they reached other users. An in-depth content and discourse analysis of six-weeks of recorded interactions was conducted to support a closer investigation of the participants’ practices. The findings of these studies formed the basis for qualitative interviews where approaches to reaching other users of minority languages in Twitter were discussed. The findings of both cases were compared.

I argue that capacities of network size and interconnectedness influence how users of minority languages reach other users in Twitter. In highlighting this social capability of reach, and how it is facilitated and constrained, I develop a useful tool that supports broader studies of media innovation and activism in Internet contexts.

Following this introduction, I present a brief contextual note outlining the need to create new opportunities to use the Irish and Northern Sámi languages. Section Two summarises the theoretical and conceptual framework. Section Three presents and discusses the findings, while Section Four presents the concluding remarks.
Section One: Context

In May 2011, 59 accounts on the Twitter platform had posted tweets in Sámi languages.\(^{39}\) 861 accounts had tweeted in the Irish language (Scannell, 2014a). By November 2014, the number of accounts posting in Northern Sámi had roughly doubled to 136, while the accounts posting Tweets in Irish had increased to 7,426 (Scannell, 2014a). These different rates of appropriation relate to the cultural contexts in which users of both languages are situated. These in turn influence how they can reach other users in order to communicate.

*The Irish Language Case*

Irish was the primary language spoken in Ireland until the 18\(^{th}\) Century.\(^{40}\) However, cultural colonisation, famine and sustained emigration impacted its use.\(^{41}\) By 1926, only 18% of the population of the Irish Free State spoke Irish (CSO, 2014). Efforts to revive the language were complicated by the *Anglo-Irish Treaty* of 1921, which divided the island into the Irish Free State and Northern Ireland. The Irish Free State adopted Irish as ‘the national language’ and actively undertook to revive it. However, successive administrations withdrew from this initial active engagement with language policy to more recent measures of language ‘maintenance’ (cf. Ó Riagáin, 2008). In 2011, only 94,000 people communicated in Irish on a daily basis outside of the education system (cf. Caulfield, 2013).\(^{42}\)

\(^{39}\) The Sámi languages were originally grouped under one category on the Indigenous Tweets website. When separated, Tweets in the Northern Sámi language had been posted from 59 accounts.

\(^{40}\) The ‘minority’ status of the Irish language in the Republic of Ireland is disputed because it is an official national language.

\(^{41}\) Between 1845 and 1950, the population of Ireland decreased by 2 million.

\(^{42}\) For a further discussion on interpretations of census data as they relate to language use, see Romaine (2008) and Punch (2008).
The rights of Irish language users in Northern Ireland were at best ignored until the ratification of the *Good Friday Agreement* in 1997, followed by the *European Charter for Regional or Minority Languages* in 2001.\(^{43}\) This related to a political struggle surrounding the union of the province with the United Kingdom. Furthermore, as a consequence of emigration, a global Irish-speaking diaspora has formed (cf. McMonagle, 2012). Social Media, such as Twitter, introduce new contexts through which users of this language can reach each other and communicate. Figure Two below for example indicates that many Tweets posted in Ireland come from regions outside of traditional Gaeltacht areas.

*Figure 2: Gaeltacht Regions (Red) and Geolocation of Irish Tweets (Green) (Ó Giollagáin et al., 2007; Scannell, 2013).*

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43 This Charter does not apply in the Republic of Ireland because of the status of the language as a National Language in that country.
people speak these languages, or self-identify as ‘Sámi’. This is partly because Sámi people live primarily in four countries in an area known as Sápmi (see Figure Three).\textsuperscript{44} It is estimated that between 30,000 and 40,000 people understand a Sámi language, with the majority of these (ca. 90%) belonging to the dominant, Northern Sámi group, and living in Norway (cf. Rasmussen and Nolan, 2011).\textsuperscript{45}

Not all those who understand Northern Sámi can communicate in writing in this language. Historically, the language was primarily used for oral communication. Lane has described how processes of linguistic standardisation can alienate users (2015). This occurred in the Northern Sámi case, creating what Magga (2002) has described as a sense of inferiority amongst the Northern Sámi about using the written form of their language. This situation was compounded by a failure to provide mother tongue education as a consequence of assimilation policies in Sápmi (cf. Magga, 2014). Some efforts to reintroduce the language in educational contexts in Norway began at the end of the 1960s, and were gradually expanded (cf. Helander, 2005). However, to the present day, the precarious status of the language in society is manifest in the attitudes of some parents, who do not consider that their children should learn Northern Sámi at school (cf. Pietikäinen, Huss, Laihiala-Kankainen, Aikio-Puoskari & Lane, 2010; Rasmussen and Nolan, 2011). This influences considerations about how users of this language can reach others to create new opportunities to communicate in Twitter. It also presents an interesting point of comparison to the Irish language case.

\textsuperscript{44} Recent research estimates that 150,000 Sámi people live in these four countries (cf. Rasmussen and Nolan, 2011)
\textsuperscript{45} For a further discussion on difficulties ascertaining numbers of speakers of minority languages, see Moore, Pietikäinen and Blommaert (2010).
Section Two: Theoretical Framework

In this article, I use the concept of ‘reach’ to explore how users of minority languages navigate Twitter to create new opportunities for language use. I focus on the social capability required to navigate this platform in order to reach others to create new opportunities for communication.

I propose that ‘reach’ is a social capability that is essential to mediated communication. It relates to considerations of engagement, or what Bennett and Segerberg (2012) have referred to as the ‘logic of connective action’ in the context of social movements in digital media. However, it also refers to the social skill of navigation that is required to support this connectivity and engagement.
In mass communication and audience research theory, the concept of reach was used to indicate the size, demographic constitution and (mediated) location of an audience that could be traded for advertising revenue. It therefore related to the technological capacity to reach a certain audience. The providers of media messages planned how best to allocate resources according to which technological capacities would most effectively reach their target audiences (McQuail, 2010). The ‘audience’ was considered to be a relatively static block that received the messages that it was exposed to.

Although theoretical understandings of audiences have evolved to present day considerations of interaction and inclusion (cf. Livingstone, 1999; Loosen and Schmidt, 2012), reach is still often used to refer to a particular capacity, in terms of numbers of people, which will be exposed to mediated messages. For example, Facebook Analytics differentiates between reach and engagement in the interaction of its users with advertisements and pages. Reach relates to the number of users a message is exposed to, while engagement refers to the number of clicks and interactions a message generates (Facebook, 2014).

The massive scale and consequent potential capacity to reach people via Internet communication is grounded in its durable connective protocol (cf. Livingstone, 1999). However, the social capability to reach people is complicated in two major ways. Firstly, considerations about digital divides point to unequal levels of access to information and communication technologies, whether due to aspects of digital literacy or lacking infrastructural requirements (cf. Alia, 2010). Secondly, where access is available, communicating in open contexts on the Internet produces a ‘long tail effect’
(Andersen, 2006). This implies that because it is possible to access a vast array of objects, the ‘active audience’ has to know how to navigate the long tail in order to reach the things it is interested in.

In this regard, applying Mansell’s (1996) axial principle of ‘capabilities’ helps to understand how perceptions of the potential use of a technology (i.e. its capabilities, for example its potential reach) inform design (i.e. practice, for example the act of navigation). However, I argue that differentiating analytically between the technological ‘capacity’ to reach a particular number of users, and the social ‘capability’ required to access that capacity facilitates a greater understanding of how new opportunities to communicate can be created in Internet contexts.

Engaging with technological capacities involves processes of learning and understanding. Bruns (2012) has discussed how ‘adhoc’ innovation led to the development of technological capacities such as the @reply and the hashtag in Twitter. These were initially implemented by users to organise their communication and later incorporated in the formal design of the platform.

Further theoretical work has explored how users have appropriated these capacities to communicate in different contexts. This includes an analysis of how @replies and hashtags are used in complex and performative ways to discuss TV programmes in Twitter (D’heer and Verdegem, 2013); how hashtags are used to organise communication relating to crisis events (Bruns, 2011); to track and analyse audiences around live TV events such as the Eurovision (Highfield, Harrington & Bruns, 2013); or to organise political communication (Small, 2011). In the present article I complement
these theoretical contributions by focusing on the social skills required in order to mobilise technological capacities and reach others to communicate.

**Section Three: Presentation and Discussion of Findings**

The data gathered during interviews revealed that the participants constructed two different kinds of networks in Twitter. These reflected the extent to which they explicitly aimed to reach other language users. These were (a) Immersive Language Networks; and (b) Interest-Based Networks. I discuss how the participants’ social capabilities influenced the construction of these networks. I use extracts from interviews to support my arguments. I refer to participants by an altered first initial to protect their privacy. ‘I’ or ‘NS’ indicates the case to which they belong. Where quotes from interviews are included, I have translated them to English. These were originally conducted in either Irish or Norwegian and Swedish.

*(a) Immersive Language Networks*

The participants constructed immersive language networks to create spaces where they could communicate almost exclusively in Irish in Twitter. In each case, their motivations related to the lack of opportunities they had to reach other users of this language in everyday contexts. Two Irish language participants who constructed these networks self-identified as language learners, while a third was a fluent speaker. No Northern Sámi participants constructed these kinds of networks.

The participants used a combination of technological capacities, such as @replies, hashtags and the creation of directories based on lists, in order to reach other users. The potential number of language users that were active on the platform, the way in which these were connected, and, the extent to which they could engage with them influenced
their practices. The following interview extract summarises one participant’s approach to reaching other users:

H(I): I want to create an Irish language lab on the Internet, as there is enough English in my personal life and in my professional life as well, em teaching, the students I have, em, so, you know, that’s the other side of it, as I said, it’s an opportunity to use the language, but, as well as that, it’s an opportunity to create a kind of small Gaeltacht em on Twitter.

Here the participant refers to the potential to create a ‘small Gaeltacht’. This is grounded in an assumption that a sufficient number of other language users are present on the platform to support this project. In order to reach other users this participant designed Indigenous Tweets (www.indigenoustweets.com). This tool employs a web crawler that identifies accounts that Tweet in Irish, and 156 other indigenous languages. It lists these users in a directory and provides hyperlinks to their profiles. It relies on the predominantly open nature of communication in Twitter to gather the statistical information that it presents. At the same time, it provides a way for users of minority languages to navigate this structure and reach other users of their languages.

The participant combined his understanding of the technological capacities of the Twitter platform with the statistical information gathered by a web crawler to create a tool that displayed the number of Tweets, and the percentage of overall Tweets posted by users of a particular language. The tool also provides information about the extent to which these users are interconnected with reference to their ‘followers’. This tool therefore serves as a reference point that supports considerations about the potential number of users of a particular language in Twitter and of how they are interconnected. Participants in this study, in both the Irish and Northern Sámi cases, mentioned using this tool to identify others whom they could reach to engage in communication.
A second participant also considered that he could reach a sufficient number of users to engage in synchronous communication on Twitter. This was in spite of the challenge of doing this in other everyday contexts:

C(I): Oh it’s because of Irish that I am online. It’s really, really seldom that I participate in a conversation that is in English. Em, for a couple of reasons, just, as I say, the main reason for me is, it is difficult to speak Irish. You know, I can listen to the radio in Irish, I can eh read in Irish, but that is only half the story if you don’t speak back.

A third participant was disappointed with his efforts to create an immersive language-based network. He regularly posted Tweets where he sought translations, or tried to use Irish-language words in new contexts. However, it was rare that more than one person would reply to him:

N(I): So and then eh I press return and see does anyone reply.
Author: Ok?
N(I): Problem is not many people reply.
Author: OK Yeah
N(I): Usually, except for ‘C(I)’.

Individual practices of reach are therefore more successful in some cases than in others. This highlights the range of skills or capabilities required in order to reach other users and engage them in conversation. The one regular user N(I) interacts with is C(I). Figure Three illustrates an interaction where N(I) manages to reach two other Irish language users. However, analysing the content of the interaction reveals a potential difficulty in terms of engagement.

#WhaT the back door; the front door #Irish
First Reply: @username backdoor or back door; front door
Second Reply: @firstreply @username Long ago the (*location of the*) house door would be changed according to the wind. ‘Other door!’ would be called out to visitors at the old door.
The participant seeks a straightforward linguistic translation. This generates a limited number of responses. The first reply answers the request, providing two direct translations with one variation in spelling, thus completing the cycle of interaction. The second respondent expands the interaction to provide additional contextual information. However, these interactions do not generate further conversation or discussion.

This example reveals that although the Twitter platform includes 7,426 people that have Tweeted in Irish, this number of users and their potential interconnectedness is not sufficient to generate new opportunities for language use. Instead, individuals must possess a range of social capabilities in order to reach other users to create relevant opportunities for communication.

These examples also illustrate that understandings of ‘sufficient’ reach can be subjective. Clearly, in the case of N(I), interactions with one or two regular respondents
in his communication network do not provide the immersive context he wants to create.

However, by contrast C(I) notes that:

C(I): But I have to say, it’s a bit strange that, in spite of the fact that, you know, Twitter says that I am following a few hundred people.
Author: Yeah
C(CI): I would say that there are really only about a dozen or twenty people, eh, that I am in regular contact with, and well, the other thing is that I, would follow a lot of organisations, the likes of Raidió na Gaeltachta or TG4 or things like that, eh, sources of information instead of people, but in terms of people you would converse with, it’s a smaller group.

This participant considers that regular communication with ‘a dozen or twenty people’ is sufficient to sustain an immersive communication network within which he can create opportunities to use the Irish language on Twitter.

Network size is a capacity that influences the number of users a participant might be able to reach in a specific context. However, it is not sufficient for a large number of users to be present in a network. Instead, social capabilities, including linguistic and digital literary skills are required in order to reach other users and create new opportunities to communicate in minority languages.

(b) Interest-Based Networks:

The participants that constructed interest-based networks stated during interviews that creating new opportunities to use minority languages was not the primary reason that they used Twitter. However, it was one, amongst a number, of personal interests. In total, eleven participants constructed these kinds of networks. These included seven participants in the Irish language case, and four in the Northern Sámi case. I discuss how these participants reached other languages users to create new opportunities for communication.
The Irish Language Case

The participants stated that using the Irish language was an important reason that they would connect to other Twitter users. D(I) stated that she would follow anyone on the platform for a while, but would be reluctant to stop following an Irish language user. G(I) would follow anyone who contacted her in Irish. She noted that using Twitter had made her aware of the number of people using Irish around the world:

\[G(I): \text{I was surprised that so many people were interested in Irish, you know, around the world. Twitter gave me that information. ... I'm included on twenty different lists on Twitter that relate to the Irish language. I was just really surprised. ... There are 2000 people following me and I would say 1000 are there because of Irish, just because of Irish. They are just interested in Irish, they're always talking about learning Irish, and it's just because of Irish.}\]

This interview extract reveals the extent to which the participant identifies the Twitter platform with the capacity to reach Irish language users. She is included on and follows ‘lists’ that relate to the Irish language. The list feature is described on the Twitter platform as ‘a curated group of Twitter users and a great way to organise your interests’ (accessed 17/10/14). Understanding how to use this feature enhances interconnectivity between Irish language users. It increases their visibility, and thereby the extent to which they can reach other users in order to communicate.

The potential to reach a global Irish-language network also informs the way in which this participant uses Twitter. Other participants also referred to their enjoyment of synchronous conversations with people on ‘the other side of the Atlantic’ (C:I), or in the USA, Brazil, Finland, Spain, France and Canada (B:I; V:I). Figure Five presents the global geolocation of Irish language tweets. This primarily reflects areas where Irish-language speakers have emigrated. It reveals that the participants can use Twitter to reach other Irish language users around the globe. Including these users in lists and displaying their interconnectedness enhances the extent to which these users can be reached.
However, one participant, D(1), discussed how reaching others purely to engage in language use had limitations. She initially reached Irish language users through Twitter. However, when her ‘real-life’ network developed, she no longer needed to interact with people with whom she had very little else in common:

*D(C1)*: Yeah I think it is a great learning opportunity and if it wasn’t for – like I don’t thing there was any disadvantage in terms of using the language in Twitter. I mean apart from the fact that maybe you would get to know people that you wouldn’t have much else in common with. Em and I feel that is always a kind of an artificial connection you know just I don’t think every Irish language speaker needs to be friends just because they speak a common language you know.

This reveals that the capacity to reach other users in order to engage with them is not sufficient to create longer-term opportunities for language use. Language as a common interest will only support interconnection to a certain extent. In order for these opportunities to develop, the relationships within which they are used also need to develop. This is an important consideration in terms of the social capabilities that are required in order to create new opportunities for minority language use.

Figure 5: Geolocation of Irish-Language Tweets (Source: Scannell, 2014b).
Considerations of interconnectivity and network size also presented challenges to innovative practices that the participants implemented to reach other users. Some of these involved the use of hashtags. Two separate examples are discussed below:

#LL - Leanúint an Luain (Follow Monday). F(I) adapted the #FF (Follow Friday) hashtag, originally employed by users to recommend interesting accounts to follow every Friday. He translated this to #LL (Leanúint an Luain or Follow Monday) to support reaching other Irish language users on the platform. During the study I observed the appropriation of this hashtag by a number of Irish language users. However, its use stopped after a while. There were two reasons for this. The first, as the following interview extract reveals, was that there was a limit to the number of Irish language users that could be reached:

Author: Yeah, and it was you that started that Follow Monday, wasn’t it?
F(I): Yeah... Just to ... well because the thing about that is, if I do it every Monday right, and if others don’t start doing it, themselves, you know, it’s, it’s not natural. You let it, if there’s life in it so be it, if not, let it be. You know, but, and, sometimes, I would prefer to do it sort of, you know, if at all possible, and maybe I break my own rule, to recommend one person, or one thing, because ahm, I don’t like then, this thing, this kind of, the club that starts on Follow Fridays, you know, follow all my friends ... and they follow you, and the, you know, if that’s the thing, you know, that’s a kind of mutual backslapping club and, there’s no, there’s no point in anyone doing that.

The second issue with the use of this hashtag was that it was unclear to users whether they should recommend accounts based solely on their Irish language use, or whether use of the language should be coupled with another specific interest. In Figure Six, one participant (B:I) uses the #LL hashtag and explains how it can be used to reach other Irish-language users. The third tweet is retweeted by B:I, and demonstrates the confusion about the ultimate purpose of the hashtag.
The example of #LL indicates how factors related to network size and interconnectivity limit the extent to which new users can be reached in order to create opportunities for language use. It also reveals how reaching other users to engage them in communication necessarily leads to considerations of engagement, i.e. what will these users discuss? The following example reveals a further challenge with regard to how interconnectivity constrains reach.

#LnaG - Lá na Gaeilge (Irish Language Day). One participant, U:1, was involved in the organisation of an event to create new opportunities to use the Irish language on Twitter. This ‘Irish Language Day’ was organised annually to coincide with Saint
Patrick’s Day (17 March). It used the hashtag #lnag (Lá na Gaeilge; Irish language day) to support reaching other Irish language users:

\[U(k): It must be four or five years ago. (Name) contacted me with this idea. So when Twitter was just starting out. There weren’t really that many people on Twitter at the time and he thought that it would be good if there was a day and a hashtag ‘lnag’, and that anyone could just write anything in Irish on the day. So I started organising that with (Name) for a few years. Now since then the Irish language community on Twitter has grown substantially so maybe it’s not needed anymore, but at the start it was good. \]

After five years, the organisers considered that there were a sufficient number of interconnected people using Irish on a daily basis on the platform. As a result, they did not need to organise this day as a specific measure to support reaching other users on the platform. The purpose of the hashtag could be considered to have achieved a point of saturation.

**The Northern Sámi Case**

Although written communication in the Northern Sámi language has historically been limited, a number of participants chose to communicate in this language in Twitter. A range of factors influenced the extent to which these participants engaged in practices of reach to identify other users to communicate with.

Figure Seven below demonstrates that, by contrast to the geolocation of Irish language Tweets, Tweets in Northern Sámi were significantly fewer, and mostly posted within the Såpmi region.

The limited number of users on the platform influenced the extent to which the participants thought it was a relevant space to use Northern Sámi. One participant stated that she would search for other people using the Northern Sámi language on Twitter, but that she would stop following them if they were boring (B(NS)). Another noted that, because the community that used the written Northern Sámi language was so small, she
did not consider that using the Northern Sámi language in Twitter would reach beyond a small number of people, or would facilitate the growth of her communication network (N(NS)).

Figure 7: Geolocation of Northern Sámi Tweets (Source: Scannell, 2014c).

Author: Em so do you think that Social Media have changed anything in your life when it comes to using Sámi?

N: I don’t know. Eh, it’s possible. But I think a lot about the fact that I use Sámi much more actively, on the Internet, in Social media.

Author: Yes

N: In any case in Twitter, because there you see, I think that, there are a lot of people who don’t know me there but who can see that Sámi is used and that it is written. Eh, so in that way I guess it has changed.

Author: Yes

N: But I still don’t know if there is anyone I can reach out to. But I always write in Sámi to those I speak to in Sámi.
Interconnectivity therefore influenced how the participants communicated. Some of them stated that they largely knew, or were aware of, people who used the Northern Sámi language in writing (T:NS; N: NS). The participants noted that they prioritised following broader interests and friends on the platform, followed by other users of the Northern Sámi language (J(NS); B(NS); N(NS)). In spite of this, they expressed a desire to promote the use of their language and to make it visible. A number of the participants also noted that a lower threshold for language use in Social Media (relating to the proximity of writing to spoken communication, and a greater toleration of typographical errors) presented potential new opportunities for language use (J:NS; B:NS).

The participants’ considerations about how they could reach other language users influenced the opportunities they both perceived and created in order to use the Northern Sámi language in Twitter. They used the platform primarily to keep up to date with their own interests, in particular what was happening in the global and local indigenous communities (J(NS); N(NS)) and to disseminate information that they though was important (B(NS)).

**Section Four: Concluding Remarks**

In this article I discuss how users of minority languages reach other users to communicate in Twitter. In doing so, they create new opportunities to use their languages.

I propose that ‘reach’ is a social capability that is essential to mediated communication. It is the process of navigation that leads to connectivity and engagement. The concept has been developed in studies of audiences and interpersonal-communication to refer to
capacities of audience size, location and interconnectivity. However, it also applies to the social skill of navigation. Understanding how this navigation is facilitated or constrained is critical to understanding how new opportunities to communicate in minority languages can be created in Social Media.

My analysis demonstrates that capacities of network size influence how the participants reach each other in order to communicate. The Indigenous Tweets tool was created to support interconnectivity and is used by the participants for this purpose. It indicates that 136 accounts have posted tweets in Northern Sámi, while 7,426 accounts have posted in the Irish language. Potential network size influences how the participants consider Twitter to be a relevant space for communication in their languages.

At the same time, my analysis also demonstrates that the potential to reach a very small number of users (i.e. between twelve and twenty) on a regular basis can be considered sufficient to sustain an immersive language-based communication network on the platform. However, maintaining these smaller network structures requires both linguistic and digital skills in order to engage other users in regular conversation.

Social interconnectivity is another factor that influences how the participants reach others to communicate. Innovative practices to support network expansion by using hashtags in the Irish-language case achieved a point of saturation because of the extent to which these users were already interconnected. In the Northern Sámi case, existing degrees of interconnectivity influenced the extent to which these participants perceived the platform as a relevant arena for network expansion. In spite of this, they considered it to be a relevant context in which to make communication in their language visible.
My analysis also reveals that the capacity to reach others and establish connections based on language-use alone is limited. Although some of the participants established new connections on the platform in this way, these connections ultimately required social development as relationships based on common interests. Consequently, creating new opportunities to use minority languages in Twitter also requires skills to engage third parties in discussions that interest them.

With reference to the example of minority-language communication, I have analysed how social capabilities are required in order to reach other users to communicate in Twitter. Network size, interconnectivity and engagement are particularly relevant factors that constrain capabilities to reach other users of minority languages. By developing social capabilities of reach, users can overcome some of the challenges these factors present and create new opportunities to use their languages. In highlighting this social dimension of the concept of ‘reach’, and how it relates to connectivity and engagement, I develop a useful tool that supports broader studies of media innovation and activism in Internet contexts.
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Article Four

Dancing in the dark:

Protecting networked privacy in social media research

This article is under review.
Abstract

In the field of Internet Research understandings of privacy have evolved from considerations of spatial control to ‘Networked Privacy’ (Marwick and boyd, 2014). I argue that operationalizing the latter concept can strengthen the protection of privacy in research. I discuss this with regard to the obligation to seek informed consent from research participants in a European context. I argue that current requirements are not realistic as networked interactions in social media necessarily involve third parties that cannot always be identified in advance. With reference to examples from my own research, I differentiate between core and ancillary research participants. I present and evaluate strategies implemented to avoid encroaching on the privacy of these participants. These include exploring how research participants manage their privacy because this influences access to third party data. This article contributes case-specific knowledge to support ethical decision-making with regard to the protection of privacy in social media research.

Keywords

Networked Privacy, Privacy, Informed Consent, Ethics, Social Media, Core Participant, Ancillary Participant, Facebook
"O body swayed to music, O brightening glance,  
How can we know the dancer from the dance?  

William Butler Yeats (1928)/(Martin, 2010)

**Introduction**

Protecting the privacy of individuals in social media Research is complicated. It is complicated because it involves networked interactions between humans and technology that are constantly fluctuating and evolving. It is further complicated because research is regulated by legislative provisions, policy documents and guidelines that, because of their essentially ‘fixed’ nature, cannot keep pace of the scale and speed of developments in the field. This brings about a requirement for case-based knowledge to strengthen ethical decision-making with regard to the protection of privacy.

My research explores how users of minority languages engage in processes of ‘Social Media-Innovation’ to create new opportunities for interaction in their languages (cf. Ní Bhroin, 2015). I am interested in how people innovate to address social needs and improve their wellbeing in and through media. To conduct this research I observe the interactions of minority language users in social media, including Facebook. These interactions involve both research participants and third parties. They also involve the interpretation and use of technological capabilities that are constantly changing and evolving.
The socio-technical enmeshments I encounter make it difficult to identify and decide what constitutes a research participant, and how I can protect their privacy. In a European context, current research and policy guidelines require that I obtain the unambiguous consent of all research participants before processing their data. I argue that this obligation is not realistic in a networked context because interactions always involve third parties that cannot be identified in advance. Inspired by Marwick and boyd’s (2014) concept of ‘Networked Privacy’, I address the following research questions in this article:

- To what extent does the obligation to obtain informed consent in European legislation account for aspects of ‘Networked Privacy’?
- How can understandings of ‘Networked Privacy’ in practice strengthen strategies to protect privacy in research?

I answer these questions with reference to practical examples from my own research, which is conducted at a Norwegian university. I discuss how the legislative and policy provisions that regulate this research envisage a single locus of information control. This implies that a researcher, or individual, can control access to personal information by implementing specific measures and in particular, giving and receiving consent to the processing of information. In reality, personally identifiable information passes through multiple networked points in social media interactions. Rather than succumbing to research paralysis because of the absence of control, I argue that acknowledging this and understanding how it is manifest can support the design of strategies to strengthen the privacy of research participants in practice.
I evaluate the strategies I implemented to protect networked privacy. These included distinguishing between core and ancillary participants and interrogating when it was necessary to inform both categories about my research interests. It also included exploring how the participants understood and managed their privacy. This involved the negotiation of social and technological boundaries that in turn impacted how I accessed information.

This article contributes case-specific knowledge to support ethical decision-making with regard to the protection of privacy in social media research. Following this introduction I provide an overview of the theoretical framing of ‘Networked Privacy’. Section Two discusses the extent to which European regulations and guidelines account for ‘Networked Privacy’ and how acknowledging the implications of this concept could strengthen the protection of privacy in Internet research. Section Three discusses why this is necessary with regard to two practical challenges: namely, identifying research participants and understanding what privacy means to them and how they manage it in practice. Section Four presents the concluding remarks.

**Section One: Networked Privacy**

Twenty years ago, Robert Jones (1994) wrote an article in *Internet Research* discussing how the ethical implications of research in ‘cyberspace’ were not envisaged when institutional guidelines for social science research were developed. In the interim, theoretical work in the field has discussed how understandings of privacy underpin the requirement to seek informed consent from research participants (c.f. Bromseth, 2003; Cavanagh, 2000; King, 1996; Svenningson, 2001, 2009). Conceptualisations of privacy have developed from spatial metaphors of control, to
considerations of ‘Networked Privacy’ (Marwick and boyd, 2014). In particular, Ess and AoIR (2002) encouraged Internet researchers to assess the relative privacy of a situation and the sensitivity of the information discussed when deciding how to protect privacy in Internet research (see also AoIR, 2012).

Drawing on Waskull and Douglas (1996), Bromseth (2003: 71) argued that spatial metaphors of geographical or physical boundaries are not sufficient to describe Internet environments, and that these environments should rather be considered in terms of particular social situations. Elgesem (2003: 10) also pointed out that the experience of research participants is not homogenous, and as a result, asking for permission to use personal data relating to particular groups of individuals from key decision-makers, may not in itself sufficiently ensure that the privacy of each individual is protected. Svenningson Elm (2009) further problematized the concepts of privacy and sensitivity, with respect to a four-stage continuum of access (public, semi-public, private and semi-private) and a requirement to assess both the content and context of communication at each stage.

These conceptualisations emphasised the role of individual social actors in interpreting and controlling privacy. They did not interrogate how technological actants, such as codes, algorithms, and content management systems influence the exercise of control. The concept of ‘actant’ is borrowed from literary studies and semiotics and employed in Actor-Network Theory to describe a material entity that has causality in specific socio-technical assemblages (cf. Latour, 2005). These actants ‘run’ in the background of interactions in social media, often beyond the awareness and control of social actors. The resulting socio-technical enmeshments present
boundaries of interaction that are increasingly less obvious than those of chatrooms (Svenningson, 2001), discussion groups (Bromseth, 2003) or blogs (Seko, 2006). Svenningson Elm’s (2009) four-stage continuum of access becomes infinitely complicated as it is fragmented according to how each party to an interaction appropriates and implements social and technological boundaries that influence privacy.

More recently, Cohen (2012) has argued that the autonomous self that underpins considerations of privacy in current legislative and regulatory provisions does not in fact exist. Instead, she argues that privacy protects situated practices of boundary management that enable self-determination. Marwick and boyd’s (2014) concept of ‘Networked Privacy’ further complicates perception-based concepts. It emphasises that privacy is not individually controlled but is manifest in networked contexts. Using the example of teenagers in social media, they argue that understandings of contextual sensitivity (cf. Nissenbaum, 2011) might not be shared, or equally understood by all parties to an interaction. They also underline how the technological affordances of networked publics complicate the control of information by signifying potential capabilities for use. In the next section I discuss the extent to which European research regulations and guidelines account for networked privacy.

Section Two: Networked Privacy and Legislative Provisions

‘Protecting privacy is a matter of ensuring appropriate flows of information, whether online or offline’ Nissenbaum (2011: 45)

This section provides an overview of the legislative provisions and ethical guidelines that apply to research in a European context. These currently include European laws
and research guidelines, as well as ‘harmonising’ programmes between Europe and the US (i.e. the ‘Safe Harbor’ programme). I also review the regulations and guidelines that apply in the Norwegian context as these relate to the examples I discuss in Section Three.

I examine how various ethical approaches and understandings of the concept of privacy are reflected in these provisions and the requirement to obtain informed consent that they enshrine. This requirement aims to protect the privacy of individuals, and in particular to prevent their exposure to financial, reputational or psychological harm (European Commission, Online). It envisages that individuals, and bodies that process personal data, can control access to this data. I argue that this requirement is unrealistic because of the networked nature of interactions in social media. These interactions include a range of third parties and technological actants (such as codes, algorithms, and content management systems) that cannot be identified or anticipated in advance.

*The European Union’s Data Protection Directive*

The European Union’s (‘EU’) Data Protection Directive was implemented in 1995. The directive provides that personal data, defined as ‘information relating to an identified or identifiable natural person’ must be processed fairly and lawfully. The definition of ‘personal data processing’ includes: ‘any operation or set of operations which is performed upon personal data, whether or not by automatic means, such as collection, recording, organization, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction’.
Personal data may only be processed if the ‘data subject’ has *unambiguously* given consent. Furthermore, special categories of data may not be processed unless an individual has given their *explicit* consent. This includes data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade-union membership, and the data concerning health or sex life. The approach is therefore to limit potential harm by increasing individual control over access to personal data. However, networked contexts complicate how researchers can anticipate the range of circumstances where they might access and consequently process user data. It also complicates how a researcher can anticipate the ‘data subjects’ or research participants that might be implicated by their practices.

As researchers explore social media environments they are exposed to data that relate to networked information flows. Their attention and curiosity, as related to the legitimate objectives of their research, may be drawn to objects in these flows. This may occur when collecting data, or when analysing or writing a research report. As a result, requiring researchers to predetermine the individuals that personal data will be collected about, or that will become the focus of a study, in order to obtain *unambiguous* or *explicit* informed consent, is not a realistic obligation. Markham (2005: 259) notes in this regard that the boundaries of the field are not so much determined by “location” as by “interaction”.

The current EU directive will be replaced with a regulation, to be implemented as law, in EU member states in 2015. Twenty years have passed and significant technological innovation has occurred since the directive was initially introduced.
Although the regulation has not been finalised, it is unlikely that there will be any significant changes to the text considered by the Council of the European Union in October 2014. The provisions relating to the requirement to obtain informed consent that I have discussed above remain unchanged (cf. NSD, Online).

A regulation, rather than a directive, is proposed to provide clarity with regard to expectations regarding data protection, or a legislative ‘one stop shop’ across EU member states (European Commission, Online). The use of the term ‘one stop shop’ is interesting in the context of how the provisions of the regulation relate to both research and commercial contexts. Social media research administered in a European context brings a range of conflicting norms, principles and values to the fore. European legislative provisions and research ethical guidelines meet the policies, norms and values of companies that stem from a more utilitarian ethical culture. At an administrative level, these are ‘harmonised’ by the ‘Safe Harbor Program’, an agreement between the EU and the US about how data relating to European citizens should be processed by US based companies. This currently requires the filing of certificates of self-compliance with the US Department of Commerce (US Department of Commerce, Online). This reveals a ‘light touch’ approach in the context of commercial regulation. This contrasts with the stricter implementation of rules in research contexts.

Ess (2009: 171-172) describes how with a utilitarian approach, the costs and benefits of various ethical conundrums are evaluated as they arise, rather than pre-empted and prohibited by legislation. This leads to tensions in terms of the appropriate ethical approach to apply when implementing research in practice. As Elgesem (2003)
maintains, the more deontological European ethical approach does not envisage a situation where the conduct of a research project is more important than respecting the privacy of individuals. At the same time, I argue that rather than abandoning their legitimate interests because the requirement to obtain informed consent is unrealistic, researchers can acknowledge and seek to understand the complexity of the situations they wish to explore. It is only from this point of departure they can design and implement strategies to protect networked privacy in practice.

*The Norwegian Legislation and Guidelines*

As a member of the European Economic Area, Norway transposes almost all of the regulations that apply to the EU single market in exchange for access to this market. The Data Protection Directive is transposed in the Personal Data Act (2000) and the Personal Data Regulations (2000). This provides for the establishment of a Data Protection Authority from which licences will be obtained for the processing of personal data, and for exemptions from obtaining licences in situations where an independent ombudsman has been appointed to ensure that data is processed in accordance with the law.

The Data Protection Authority maintains that considerations with regard to how reasonable it is to require informed consent when processing personal data relates to the kind of data being processed; whether it is possible to contact the individuals it relates to; and, the extent to which they should be informed (Eilertsen, 2013). I argue that these considerations should be extended to include an evaluation of the networked nature of interactions in social media environments and of the social and technological capabilities employed by individuals in these contexts to manage their
privacy.

The Norwegian National Committee for Research Ethics in the Social Sciences and the Humanities ‘NESH’ is an independent agent that considers questions regarding research ethics. This committee issues guidelines to support the conduct of research in the Social Sciences and the Humanities. The current guidelines emphasise the requirement for research to respect individuals, with particular regard to freedom and self-determination; safeguarding against harm and unreasonable suffering; and, protecting privacy and close relationships (NESH, 2006: 17). These principles centre on obtaining informed consent and/or informing about research. They outline the responsibility of the researcher to their informants (cf. Bromseth: 2003).

For example, the guidelines provide exemptions from the requirement to obtain consent in public contexts, as long as the data is not recorded. Mann (2003: 38) however points to the fact that everything that occurs on the Internet can be recorded, resulting in the potential to reveal every detail of what happens in these spaces. This leads to the question of whether differentiating between public and private contexts, purely by means of access, and from an outside (i.e. a researcher’s) perspective, can facilitate ethical Internet research. Bromseth (2003: 72-73) notes that contextual sensitivity, and in particular the ‘inside-perspectives’ of participants should be taken into account in order to determine the privacy of a particular situation. In 2003 NESH published Internet-specific guidelines that took account of some of these issues. These don’t adequately reflect the networked context of Internet-based interactions and are currently under review. The revised version is due to be circulated for consultation in early 2015.
The Association of Internet Researchers (‘AoIR’) Guidelines

In 2012, The Association of Internet Researchers published an updated series of recommendations to support and inform decision-making about the ethics of Internet research (AoIR, 2012). These guidelines set out a series of questions to be considered in the context of Internet research, and at each stage of the research process, including obtaining informed consent. They encourage a context and case-informed approach to ethical decision-making, pointing out in particular that:

This case based approach is complicated by the fact that most of us will grapple with other sets of tensions beyond the specifics of the research context we are studying: ethical versus legal considerations, regulatory-driven versus context-specific models for ethical approaches, and top-down versus bottom-up decision making. These tensions should be acknowledged and considered, even if there are no easy resolutions (AoIR, 2012: 7).

Individuals have different perceptions of the extent to which the data they contribute in particular contexts is personal or private, different understandings of the extent of control they exert over it, and expectations as to how it should be treated. The consequences of violating norms and expectations relating to information flow in social media contexts has previously been discussed, for example by boyd and Marwick (2011) in their discussion about how American teenagers became upset when images from their social media profiles were displayed out of context by teachers at their schools.

I have described the legislative situation in Europe and in Norway. The current regulations do not take account of the ‘Networked Privacy’ that emerges in these contexts, with regard to the presence of third parties, understandings of the situations that arise or of how these are influenced by technology. This renders the legislative requirement to obtain informed consent unrealistic and presents a problem for
research practice. In this regard, it is important to emphasise, as the AoIR Guidelines (2012: 5) note, that multiple judgements are possible and ambiguity and uncertainty are part of the process. It is precisely for this reason that building case-based knowledge about ethical decision-making, and evaluations of strategies to maintain privacy, is necessary. In the next section I contribute to case-based knowledge in this regard by evaluating the strategies I implemented to protect the privacy of research participants in Facebook.

Section Three: Protecting Networked Privacy in Practice

When … guidelines are used as an exclusive means of defining the ethical boundaries of one’s work, the spirit of the regulation has been replaced by unreflective adherence to the letter of the law’. Markham (2005: 275)

Facebook’s Data Use Policy states that certain elements of information that are defined as personal data, and therefore protected by European legislation, are ‘always publicly available’. These include a user’s name, profile pictures and cover photos, networks, gender, username and user ID. Facebook also advises users of the implications of providing access to their information: ‘Just like anything else you post on the web or send in an email, information you share on Facebook can be copied or re-shared by anyone who can see it’ (Facebook, Online). Here, the concepts of ‘public’ and ‘private’ relate specifically to the control of access to information. However, it is explicit that this control is networked rather than individual.

Regarding the European legislative requirement not to collect, record, organize or store personal data without obtaining a user’s informed consent, Facebook’s Data Use Policy notes:
Once you share information with your friends and others, they may be able to sync it with or access it via their mobile phones and other devices. For example, if you share a photo on Facebook, someone viewing that photo could save it using Facebook tools or by other methods offered by their device or browser. (Facebook, Online)

In making these statements, Facebook confirms to users that they are yielding control of their personal data to those whom they allow to access it, for example their ‘Friends’, ‘Friends’ of their ‘Friends’ and the ‘Pages’ to which they subscribe. This limits the company’s responsibilities. It confirms that the access provided by individual users is neither platform- nor time-bound. Although not explicitly stated in the policy, the potential for Facebook users to be collecting, recording, organizing and storing personal data about others, in different formats and at different times, is implicit in this provision.

Users acknowledge and agree to Facebook’s Terms of Service on registration. These provide that continued use implies continued acceptance of policies, even as they are updated and changed. Notice in these instances is usually provided within the policy, i.e. individual users are not informed directly. The insufficiency of these measures has previously been discussed (cf. Nissenbaum, 2011), and more recently highlighted with regard to a controversial emotional study in Facebook. This study manipulated users’ ‘news feeds’ and measured their reactions to content (cf. Kramer et al., 2014). International controversy surrounded the extent to which individuals could opt-in to this project, instead of being the subject of its implementation without having provided their explicit informed consent.

In spite of this, it continues to be the case that in signing up to, and continuing to participate in Facebook, users effectively yield the control of their data to the social
and technological actors and actants they interact with, whether they are explicitly aware of their presence or otherwise. I implemented a small-scale research project in Facebook. I did not manipulate the information that was received by others in the platform in ways that were not directly observable. Nevertheless, the dialogical and networked nature of interactions in the platform raised some distinct challenges with regard to protecting the privacy of participants, and in particular obtaining their informed consent. These are discussed below with reference both to my own actions and those of the participants in the study.

Establishing Categories of Participants in Networked Interactions

The image above is a Screen Shot captured from the author’s Facebook profile. The interactions revealed relate to the introduction of a predictive text service in the Irish language, and to discussions about the Ume Sámi language in Oslo. They are typical of interactions of interest to the study. During my research, I observed similar interactions relating to nine Irish- and ten Northern Sámi language users in Facebook. I was interested in how they engaged in innovative activities to create new opportunities to use these languages on the platform. Before implementing the study, I contacted the participants I wanted to include, informed them of my research interests and obtained their prior written consent to participate. This included providing me with access to their Facebook profiles. This in turn provided me with access to the interactions of a range of third parties in ways I had not anticipated when designing the study.
The observational study was conducted for an eighteen-month period. I also gathered screen shots relating to the participants' interactions for a period of six-weeks. This recorded data enabled a closer analysis of the participants’ interaction contexts. In total, I gathered 1,593 Screen Shots containing data relating to 9,111 unique interactions. Each of these interactions necessarily implicates at least one additional participant. For example, in the image above, sixty areas are erased in white because they contain personally identifiable information about third parties. In advance of observing the research participants interactions, I could not anticipate what third parties might be implicated in the networked flows of information that I observed.

Close analysis of data from social media sites generally requires the creation of a record. Creating records without capturing data about or implying third parties is difficult, if not impossible, given the dialogical nature of interactions in these spaces.
Consequently, data will most likely be collected that identifies individuals but is incidental to the purposes of the research. Researchers have a professional responsibility not to unnecessarily encroach on the networked privacy of these third parties. When conducting research in Facebook, it is not possible to predetermine all of the information flows that will be the focus of, or result from, a researcher’s methodological choices, particularly when observing and interacting with participants. Markham (2012: 337) notes how the concept of privacy is inextricably linked to considerations of harm and vulnerability. One key strategy I implemented to mitigate harm and vulnerability and protect networked privacy during the research process was to interrogate how I defined a research participant.

I observed and interacted with data that involved two kinds of participants. These were participants that were of direct interest to my research, ‘core participants’, and participants who were ancillary to these. ‘Ancillary participants’ were the people with whom the core participants interacted. Although these were implicated by my research, their interactions were not necessarily within its scope. To illustrate, a core participant’s profile demonstrated a list of participants in their network. This network was ancillary to their interactions. However the people it identified were not all relevant to my research interests. This had implications for how I approached obtaining informed consent.

Building on understandings of contextual integrity, but remaining true to the fundamental norms and values underlying the deontological notice and consent approach, I obtained the informed consent of ancillary participants in the event of a planned change to flows of information that implicated them (cf. Nissenbaum, 2011).
For example, if when analysing material that contained an ancillary individual’s personal data, it became apparent that this data was relevant to the research, I sought this person’s informed consent before including it. This occurred in both the Irish- and Northern Sámi language cases, and four additional participants were recruited as ‘core participants’ in this way.

In Facebook, where researchers generate interaction with participants, they control access to these information flows by way of their own ‘privacy settings’. Conversely, where researchers interact with participants in interactions that the participants’ control, they enter their flows of information, thus interfering at a deep level in the frame of the field (Markham, 2005: 250). This has further implications for individuals, who are not participants in the study, and who come into contact with the researcher through flows of information that are beyond their control. In the next section I discuss how the core participants’ practices of privacy management influenced the research process.

**Participant-Based Strategies that influence Networked Privacy in Research**

I observed interactions in Facebook by gaining access to the profiles of people I identified as core participants. The extent to which I could avoid encroaching on their privacy and that of ancillary participants was complicated by how these participants managed their privacy, both socially and technologically. In order to understand what this meant in practice, I asked the participants about their understandings of privacy and the strategies they implemented to manage it during qualitative interviews. I found that understandings of privacy in Facebook related to individual considerations of technological and social capabilities. These influenced two key decisions the
participants made: firstly, who the participants provided with access to their profiles and personal data; and, secondly, what they discussed in their interactions. The decisions the participants made had implications for the networked privacy of third parties they engaged with. I discuss these implications under the relevant headings below.

I use extracts from qualitative interviews to illustrate the participants’ practices. The participants are identified with reference to an altered first initial. For information rather than analytical purposes I also indicate the case they belong to, i.e. Irish or Northern Sámi. The interviews are translated to English by the author but were originally conducted in Irish or Norwegian and Swedish.

Technological Capabilities:

It was possible to explore the participants’ interpretation and use of technological capabilities in a tangible way. This involved the extent to which they used specific technological ‘privacy settings’ in Facebook to manage how they provided third parties with access to their data. However, as outlined in Facebook’s Data Use Policy, and discussed above, these technological restrictions are implemented in networked contexts and are therefore permeable.

For example, ten of the participants were selective about who they included in their networks. Criteria of selection related predominantly to the extent to which they knew participants that sent them a ‘Friend Request’. Within their networks, the participants in this category further managed their privacy by employing additional technological capabilities. One participant indicated that they considered Facebook to
be more private than other social media platforms. When asked why, they responded:

*B (Northern Sámi):* There you have the option that if you want to share a photo album with just your closest family, you write their names and they get to see it.

By contrast, another participant stated:

*J (Northern Sámi):* But for example in Facebook I don’t limit the use of pictures. I come from a large family with many relatives and very much want to share what is happening in my life with them.

Yet another participant limited how they could be identified by the Facebook search function and the extent to which their name could be ‘tagged’ in photos:

*G (Irish):* Em, well, in Facebook now you can’t, you know, if you are looking for my name, you can’t find it unless you are a friend of mine. That is done. With tagging and things like that, I’m very you know, you can’t, like, that is a project. You can’t use my name, kind of to tag it. With pictures and things like that, I am very private.

These interview extracts reveal the extent to which the participants’ use of Facebook’s technological ‘privacy settings’ relate to individual considerations of privacy and approaches to managing it. The participants’ strategies influenced the nature of interactions that I was exposed to when conducting research. The fact that they were selective about who they included in their networks, and provided with access to their data, revealed the extent to which they considered these interactions to be private. However, in each case, the personal data the participants managed was accessible by third parties. Maintaining privacy was therefore dependent on these third parties’ interpretations and consequent actions.

The networked privacy of third parties, or ancillary participants, was also implicated by the participants’ use of technological capabilities. For example, four participants had ‘open’ attitudes about who they allowed to access their interactions. In these
cases, how I accessed interactions involving third parties via these participants was less restricted. As the following extract reveals, this was based on their interpretation of the ‘social’ nature of interactions on the platform:

_F (Irish): I feel I use them (social media) for my public life, but I must say that I don’t use them at all for my private life. You know, it’s, it’s sort of like this. They are a social tool, therefore they are public. So if you think that anything you put on social media is in any way private, you are deluding yourself, you know._

In spite of the tangibility of the measures discussed above, the participants’ interactions were also managed and constrained by a range of technological actants such as algorithms and content management systems. It was not possible to ascertain exactly how these influenced the participants’ interactions. To illustrate, the Facebook emotional study was conducted in 2012. It could have influenced the networked privacy of the participants in this study, but the extent to which it may have done so was unknown. In order to understand how the participants’ interactions could be influenced by these actants at a general level, I explored how these worked with reference to Facebook’s terms of use, and relevant research literature (Facebook, Online; Kramer et al., 2014).

_Social Capabilities:_

In addition to interpreting specific technological capabilities, the participants also managed their privacy by interpreting and implementing social capabilities. These included managing how they interacted on the platform by limiting discussions and coding certain interactions. These strategies were implemented because of an interpretation of the imagined audience that were present in their networks (cf. Marwick and boyd, 2011). The implementation of social capabilities was individually managed, implicit and context-specific. However it also influenced how I accessed
data about third parties.

One participant discussed how the amount of people that they allowed to access their account had constrained their freedom to interact.

*K* (Northern Sámi): A while ago I had almost a thousand friends. Then I felt that I couldn’t write everything. It was really like eh, that one had to think who was paying attention and... Then I thought it was a bit much. So then I stopped using Facebook as well. I was off Facebook for a few months around a year ago. Em. Since then I’ve kept the amount of friends a lot lower. So that, it’s just the people I can trust, and people I know privately.

Their strategy to overcome this was to close their account for a while and then reopen it with a technologically higher limit on the number of ‘Friends’ that they provided with access to their profile.

Participants with more ‘open’ attitudes about who they included in their networks also managed the kind of topics they discussed, as revealed in the following extract:

*J* (Northern Sámi): There are certain things I would not write about. For example wild animals are not so amusing to write about, particularly wolves. When you live with wolves close by you develop a certain attitude towards them, but if you discuss that in social media it can be quite controversial. I don’t discuss reindeer either. Feminism is another topic that can be quite peculiar. But for example in a discussion about immigration I feel that I, as an immigrant, have the right to contribute my opinions. Apart from that I think it’s important to consider the image one portrays of the Sámi community in general. I don’t want to confirm stereotypes.

Another participant noted that they were careful about discussing their family. They aimed to be positive in general when interacting on the platform and coded interactions that revealed frustrations.
A third participant noted that their perceptions of privacy changed over time. When they initially started using social media they were open and expressive. However, when they commenced employment in a position of responsibility in a small community, their attitude towards interacting in social media, including in Facebook, changed.

\[ W \text{ (Northern Sámi): I don’t remember exactly what I wrote in Facebook in the beginning, but it was certainly more, so to say, explicit or expressive.} \]

Five participants expressed concern about how their privacy was impacted by their involvement in Facebook. Each of these closed their accounts at various points during the study. In spite of this, four accounts were reopened. This reluctance to abandon the platform in spite of privacy concerns reveals the extent to which using Facebook is integrated in the participants’ lives and requires social management. Only one participant closed their account and did not reopen it. This was closed because they were concerned with the amount of space social media were taking in their lives. The following extract reveals how their understanding of privacy was informed by both their own use and the use of others in their network:

\[ D \text{ (Irish): I don’t know if it is the way my friends use it or my own reluctance. Like I think I’m a more... sort of as I said I’m a bit restrictive and shy and I don’t tend to be very open with people. So I think that if I am going to be open I want it to be in front of people that I know and that I share a kind of interest.... Particularly if you are going to share sort of pictures and basic biographical information and data like about where you are and your address and your telephone number. I don’t want to release that kind of information too easily.} \]

The participants’ implementation of social capabilities included recognising that what they discussed was social, rather than private, and consequently limiting interactions. This echoes how Marwick and boyd (2011) pointed out that ‘contexts collapse’ in social media environments, where users control over the audience for their specific
interactions diminishes, thereby resulting in communication strategies that attempt to circumvent and manage this.

Because of the more implicit nature of these strategies, they were difficult to observe or understand without referring to specific interactions. While the extent to which the participants refrained from discussing certain topics reduced my exposure to these kind of interactions, it was the participants’ own considerations of what was private, rather than those of third parties, that informed these actions.

Summary:
In this section I have outlined how networked interactions and practices of privacy management influence how researchers gain access to data that relates to third parties. This renders the current requirement to obtain informed consent from these parties unrealistic and calls for the establishment of alternative strategies to protect networked privacy. One key strategy I employed was to differentiate between core and ancillary research participants. Where an ancillary participant became the focus of the research project, I sought their consent before analysing their data.

The core participants also implemented a range of technological and social strategies to protect their networked privacy when interacting in Facebook. These related to decisions about who to include in their networks and what to discuss when interacting. These strategies were individually designed and implemented. They also evolved over time. While the participants’ own use of technological capabilities were tangible and could be discussed, their implementation of social capabilities were more implicit and context specific. Furthermore, the way in which the participants’
interactions were influenced by technological actants was difficult to determine beyond a theoretical level.

In both cases, the participants’ privacy management strategies were focused on controlling their own privacy, rather than that of third parties. I therefore needed to consider the potential attitudes of third parties to the privacy of these consequent interactions. Because of the unpredictable nature of interactions between the participants and third parties it would not be possible to explore these attitudes in advance of conducting research. However, by defining third parties as ancillary research participants I could consider how their privacy was implicated by my research on a case-by-case basis with regard to specific interactions.

**Section Four: Concluding Remarks**

In this article I have outlined and discussed practical challenges relating to protecting the networked privacy of individuals when conducting research in Facebook. In doing so I build on case-based knowledge to support ethical decision-making in this regard.

I have argued that legislative and policy provisions that regulate research practice in a European context do not sufficiently account for aspects of networked privacy. This is because they are essentially ‘fixed’ at particular points in time. I argue that their revision could benefit from considerations of the concept of networked privacy as it is influenced by twenty years of theoretical development and case-based research in the field of Internet Studies. In particular, with regard to how interactions that relate to and contain personally identifiable data are influenced by multiple networked factors.
These interactions necessarily involve third parties in ways that cannot be anticipated in advance of implementing a research project. Obtaining unambiguous and/or explicit consent in advance of the processing of personal data, as currently envisaged, is therefore unrealistic.

Recognising that the concept of privacy extends beyond the control of individual access to information and spatial metaphors, to the networked privacy of participants in specific interactions and contexts, researchers can develop alternative strategies to navigate ethical courses of action.

With regard to research practice, I discuss how identifying core and ancillary participants can extend practices to protect networked privacy to third parties that become implicated in the research process. I also demonstrate how the interactive and dialogical nature of communication in Facebook means that the locus of control with regard to information flows does not rest with individuals but is networked. Users of the platform engage and interact with others in dynamic environments. They also use technology and this in turn influences how they interact.

The practices of privacy management that are implemented in these contexts have consequences for the kind of information a researcher is exposed to. These include considerations about who is included in a particular network, what is discussed in interactions within these networks and how technological and social capabilities are used to support strategies of networked privacy management. While the participants’ interpretations and use of technological capabilities to manage privacy were tangible and could be discussed, their interpretations and use of social capabilities were more
implicit and context specific.

I argue that evaluating and reporting on the strategies employed by researchers and participants to manage networked privacy contributes to case-based knowledge. This in turn helps to improve and inform the conduct of ethical Internet research and the protection of privacy in social media research.

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Appendix One: Interview Guide

Theme: Innovation (Meaning and Use)

1. What do Social Media mean to you? In particular, what do Social Media mean to you with regard to using the (insert) language?

(Aiming to establish general meaning and perceived consequences of innovation; differences between different media; difference between specific capacities for communication within each media)

2. How do you use Social Media?

(Aiming to establish: frequency, location (including mobile), professional or private use, and devices used to connect – i.e. mobile/pc/tablet; use of particular interface language etc.)

3. What do you use Social Media for? Do you have a specific goal when you use these media?

(Aiming to establish: purpose; type of interaction (i.e. reading/writing); aim to generate interaction or not; reasons for use and non-use of different media)

4. How do you connect or differentiate between your private and public life when using Social Media?

(Aiming to establish strategies for protecting privacy; Concerns about privacy; Considerations of how different capacities for communication support privacy with regard to platforms; situations; contexts; groups; people; interactions; development of understandings of privacy over time)

5. Do you think Social Media change anything in your life, in particular when it comes to Irish/Sámi language use?

(Aiming to establish how specific capabilities might support new opportunities for language use: Extent to which technological capacities are considered ‘new’ or to have specific implications for language; Discussed visibility, inclusion and exclusion; multilingual contexts and interactions; ultimately aspects of reach and access)

6. How do you decide who to follow or be friends with in Social Media?

(Aiming to establish particular practices/solutions; Considerations about establishing a network where language use would be relevant; Perceived accessibility of other people who use language; Extent to which language is a criteria for establishing connections; considerations about ‘imagined’ audience; extent of sharing of common interests within networks; extent to which new connections are established; extent to which connections related to local or global relationships; potential to overcome previous difficulties of
reach and access; development and use of capacities for communication to do this)

Theme: Creating New Opportunities for Language Use

7. Do you have a particular purpose when using Irish/Sámi in Social Media?

(Aiming to establish: Context, Motivations; Different levels of interactivity when specific languages were used; Use of language to protect privacy; Use of language to strengthen group identity)

8. Do you participate in any specific groups/projects (because they are in Irish/Sámi)?

(Aiming to establish motivations: Particular groups included Ártegis Ságat in the Northern Sámi case and ‘Gaeilge Amháin’ in the Irish language case; projects included translating of the Facebook and Twitter interfaces, design of web-based tools, construction/administration of Facebook groups or lists in Twitter; What does this participation mean; -Ultimately considerations about overcoming access and reach)


(Aiming to establish kinds of interactions; Strategies to generate interaction)

10. Sometimes, you use another language when communicating with someone who can speak Irish/Sámi. Do you know why you do this? Do you think Social Media impact the way you use Irish/Sámi?

(Aiming to establish whether there were specific capacities for communication that limited use of these languages – this included both social capabilities and considerations, and technological constraints – such as the availability of a Northern Sámi keyboard, the use of accents in Irish – and questions of/perceptions of linguistic competence; Also social reactions to language use)
**Appendix Two: Summary Coding Template**

Note: A User Guide (see overleaf) accompanies this Summary Coding Template. The User Guide indicates how each code was implemented during the ‘Observational Remix’ Process.

<table>
<thead>
<tr>
<th>Focused Themes</th>
<th>Coding Categories – Content Analysis</th>
<th>Theoretical Categories</th>
<th>Conceptual Framework</th>
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<tbody>
<tr>
<td>File Code</td>
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<tr>
<td>Part</td>
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<tr>
<td>Media Innovation: Representation</td>
<td>Platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genre</td>
<td>Capabilities/Capacities</td>
<td>Capabilities/Capacities</td>
<td></td>
</tr>
<tr>
<td>(Multimodal) Content Type</td>
<td>Multimodal Contexts?</td>
<td>Hybrid Contexts</td>
<td></td>
</tr>
<tr>
<td>Representation</td>
<td>Language (Codeswitching)</td>
<td>Innovative Language Use?</td>
<td>Innovation</td>
</tr>
<tr>
<td>Place Language Changed</td>
<td>Causality?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access/Visibility</td>
<td>Access/Visibility</td>
<td>Access, Reach</td>
<td></td>
</tr>
<tr>
<td>Theme (Discourse)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Privacy</td>
<td>Privacy</td>
<td></td>
<td></td>
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<tr>
<td>Motivation</td>
<td>Motivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media Innovation: Empowerment</td>
<td>Media Innovation Discourse</td>
<td>Discourses of Empowerment?</td>
<td>Empowerment</td>
</tr>
<tr>
<td>Negotiating Relevance of Language Use</td>
<td>Establishing/Negotiating Communication Norms?</td>
<td>Instrumentalization? Innovative Language Use?</td>
<td></td>
</tr>
<tr>
<td>Marginalisation</td>
<td>Constructing Identity</td>
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</tbody>
</table>
**User Guide:**
This guide is divided in four sections according to the four main stages of coding implemented during the ‘Observational Remix’ process outlined in Chapter Three. The first section relates to the development of focused themes during the early stages of the observational analysis. These informed the requirement for and initial focus of the content analysis. The second section relates to the development of more substantial coding categories during the content and discourse analysis. These informed the further observational study, and the consequent implementation of qualitative interviews and field trips. The third section refers to the development of theoretical categories that informed the production of the qualitative interview guide. The fourth section refers to the finalisation of the project’s conceptual framework.

In each section I provide a series of questions that drove my identification and analysis of data under each code.

**Section One: Focused Themes**

<table>
<thead>
<tr>
<th>Theme Code</th>
<th>Implementation Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Innovation:</td>
<td></td>
</tr>
<tr>
<td>Representation</td>
<td>What is new/changing about the ‘politics of representation’ in Social Media?</td>
</tr>
<tr>
<td></td>
<td>How does this influence the way in which the participants communicate in minority languages?</td>
</tr>
<tr>
<td></td>
<td><em>Note: This code differs from the ‘representation’ code because it relates to what is new or changing about communication in Social Media, rather than simply establishing the conditions for representation in these contexts.</em></td>
</tr>
<tr>
<td>Representation</td>
<td>How do the participants use their languages to communicate in Social Media?</td>
</tr>
<tr>
<td></td>
<td>Which languages are used in what contexts?</td>
</tr>
<tr>
<td></td>
<td>What factors influence this?</td>
</tr>
<tr>
<td>Access/Visibility</td>
<td>To what extent are minority languages visible in Facebook, in Twitter, in Blogs?</td>
</tr>
<tr>
<td></td>
<td>How does this influence how the participants communicate?</td>
</tr>
<tr>
<td>Media Innovation:</td>
<td>What is new/changing about the extent to which the</td>
</tr>
</tbody>
</table>
| Access | participants have access to opportunities to communicate in Social Media?  
How does this influence how they communicate?  
What/who do they have access to? How is this access provided (technologically or socially)?  
*Note: This code differs from the ‘access/visibility’ code because it relates to what is new or changing about communication in Social Media, rather than simply establishing the conditions for access/visibility in these contexts. |
| Media Innovation: Empowerment | Given the discourses of empowerment that surround Social Media, how are the participants in this study empowered to communicate in minority languages?  
What is it about communicating in these media that reveals the conditions for empowerment?  
What is the relationship between social and technological change and the conditions for empowerment? |
| Social Innovation: Language Maintenance | What aspects of the participants’ communication with regard to minority language use are socially innovative?  
How/why do these practices constitute social innovation?  
What needs do they relate to?  
What social goals do they appear to solve or aim at addressing? |
| Negotiating Relevance of Language Use | Why do the participants consider certain languages to be relevant in particular contexts?  
Are some contexts or genres more suitable for minority language use than others? Why?  
What factors influence the participants’ decision-making in this regard? |
| Marginalisation | How do previous processes of marginalisation influence the participants’ language use?  
Is the use of minority languages still marginalised in Social Media? If so, what conditions/factors appear to contribute to |
### Section Two: Content Analysis

<table>
<thead>
<tr>
<th>Coding Categories – Content Analysis</th>
<th>Implementation Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>File Code</strong></td>
<td>This code relates to the approach to storing data. Each item of data, for example a screen shot or text document was given a file code. This file code identified the data in the Excel Sheet. The file code was constructed as such: ‘Date_ParticipantsInitials_Source_Number’, for example ‘20110923_BMG_FB_1’.</td>
</tr>
<tr>
<td><strong>Part</strong></td>
<td>This code also relates to the approach to storing data. A number of items of data were stored together. For example, a screen shot might have captured a couple of different Blog Posts, Status Updates or Tweets, or a word document might have had a couple of different parts that were relevant to different codes. These were indicated by number, i.e. 1,2,3 etc.</td>
</tr>
<tr>
<td><strong>Platform</strong></td>
<td>This indicated whether the data related to Facebook, to Twitter or to a Blog.</td>
</tr>
<tr>
<td><strong>Genre</strong></td>
<td>This related to the kind of interaction that was captured. For example, a status update, a comment, a blog post, a tweet, a retweet etc.</td>
</tr>
<tr>
<td><strong>(Multimodal) Content Type</strong></td>
<td>This related to the kind of data that was captured. For example was it text, a picture, an audio file, a hyperlink to another source of data etc.</td>
</tr>
<tr>
<td><strong>Language (Codeswitching)</strong></td>
<td>This code indicated the language that was used to communicate, and whether this revealed codeswitching (the use of more than one language either within a particular sentence, a particular conversational ‘turn’, or between ‘turns’).</td>
</tr>
<tr>
<td><strong>Place Language Changed</strong></td>
<td>This related to the place in an interaction where a language changed- i.e. within sentence, within turn or...</td>
</tr>
</tbody>
</table>

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this? If not, why not?
between turns. Each turn was indicated by 1, 2, 3, whereas changes within turns were indicated by 0.5. For example, an interaction that opened with ‘Dia dhaoibh. Awful weather today.’ Was coded ‘1.5’ under this category.

### Access/Visibility

This established the initial ‘theme’ of access/visibility as a formal coding category and was implemented in the same way as discussed in Section One above. I.e. To what extent are minority languages visible in Facebook, in Twitter, in Blogs? How does this influence how the participants communicate?

### Participation (Likes, Redistribution, Comments)

This related to the kind of participation that the interaction revealed. I.e. the number of people that were party to it and the way in which this participation was manifest. The aim of this code was to establish whether and how communication in minority languages differed from communication in other languages in this regard.

Questions:
- What kind of participation is revealed (i.e. retweet, like, comments etc.)?
- How many other people are involved in the interaction?

### Theme (Discourse)

This code was used to indicate the broad theme that the recorded item referred to. This was loosely categorised as for example ‘Irish Presidential Debate’; ‘Tromsø Language Administration Debate’ etc.

### Privacy

This code indicated considerations about privacy that I reacted to. This included both the participants’ own expressions of concern about their privacy, and my considerations about my research-driven practices.

Questions:
- What does the interaction reveal about the participants’
| **Motivation** | This code indicated the kind of motivation that was driving a particular action. How is this interaction motivated? What is this interaction trying to address? Is this explicit/implicit? To what extent does the participant state this, to what extent is this my interpretation? |
| **Media Innovation Discourse** | Is the participant explicitly referring to something new/different about these media in a positive/negative light? If so, what broader discourses does this refer to? (For example – concerns about ‘privacy’ were often negatively expressed; However, the ‘benefits to the language community’ were often positively expressed) |
| **Minority Language Discourse** | This code identified the kind of discourse referred to if the participants explicitly discussed minority languages. For example, if a participant wrote a blog post about: ‘Why I choose to communicate in a minority language’, the code would identify the relevant discourses: i.e. language maintenance, survival, extinction etc. |
| **Innovation in Social Media?** | This code identified innovative practices that the participants were engaging in in Social Media. What kind of innovation is occurring? What is innovative about it? (What is changing, how is it changing?) What aspects of Social Media does it relate to? |
| **Establishing/Negotiating** | This related to the code of ‘negotiating relevance of approach to managing privacy? What does this mean for my own actions as a researcher? How are my actions as a researcher influencing the core participants and the third parties they relate to (or what I have subsequently defined as ‘ancillary participants’)? |
Communication Norms?

language use’. It explicitly focused on the extent to which the participants deliberately set out to create new communication norms to establish the relevance of minority languages in new domains, or the extent to which they negotiated the relevance of these languages in particular contexts. One example might be a blog post written in Irish that received negative comments in English. A number of participants in the study joined in the debate to establish the relevance of the language both within the blog and in a broader social context.

| What norms are being established/negotiated? |
| How is this negotiation taking place? |
| What aspects of Social Media are referred to? |
| What broader social aspects are referred to? |

Constructing Identity

This related to aspects of identity construction that were revealed in the participants’ interactions. Examples include posting photographs in ‘Kofte’ (Traditional Sámi dress) accompanied by comments in Northern Sámi or discussing minority language skills as a reflection of ‘who I am’.

| What aspects of identity are revealed? |
| How are these constructed? |
| Is there a process of negotiation involved? |

**Section Three: Theoretical Categories**

<table>
<thead>
<tr>
<th>Theoretical Categories</th>
<th>Implementation Guide</th>
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</thead>
<tbody>
<tr>
<td>Capabilities/Capacities</td>
<td>This referred to the theoretical development of the categories of ‘capabilities’ and ‘capacities’. ‘Capacities’ were considered to be something that was enabled by Social Media technologies, for example the ‘capacity to act’ or communicate in a particular way. This build on the work of Proulx et al. (2011). The category of ‘capability’ related to the participants’</td>
</tr>
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</table>
‘power to act’, or the social factors that facilitated the participants’ capabilities as individuals. These influenced how the participants’ interpreted the ‘capacity to act’ presented by Social Media. Here, the concept of ‘capability’ is social and differentiates from Mansell’s (1996) inclusion of both social and technological factors in this category. The implementation of these codes related to addressing the following questions:
What capacities/capabilities does the data reveal?
How are these facilitated or constrained by certain social or technological factors?

This referred to the identification of the different kinds of data that were being exchanged in communication and also to the kind of actors that were involved, i.e. traditional media content, hyperlinks to external websites, sound file, photograph etc. It built on the acknowledgement of the fact that multimodal content was exchanged during the participants’ interaction, but started to acknowledge that this content was sourced from a range of other contexts, and that it influenced language use in different ways (for example, if reacting to a newspaper article in English/Irish, the participants’ either communicated in the language in which the content they were referring to was written, or changed the language in which the content/conversation originated). The theoretical implementation of this category related to the concepts of ‘access’ and ‘reach’ as developed within Minority Language Media Studies (cf. Jones 2013; Pietikäinen and Kelly-Holmes, 2011) and related to the work of Hall (1997) but also later work by Jenkins (2006) and Bruns (2008)

<table>
<thead>
<tr>
<th>Multimodal Contexts?</th>
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<tbody>
<tr>
<td>This referred to the identification of the different kinds of data that were being exchanged in communication and also to the kind of actors that were involved, i.e. traditional media content, hyperlinks to external websites, sound file, photograph etc. It built on the acknowledgement of the fact that multimodal content was exchanged during the participants’ interaction, but started to acknowledge that this content was sourced from a range of other contexts, and that it influenced language use in different ways (for example, if reacting to a newspaper article in English/Irish, the participants’ either communicated in the language in which the content they were referring to was written, or changed the language in which the content/conversation originated). The theoretical implementation of this category related to the concepts of ‘access’ and ‘reach’ as developed within Minority Language Media Studies (cf. Jones 2013; Pietikäinen and Kelly-Holmes, 2011) and related to the work of Hall (1997) but also later work by Jenkins (2006) and Bruns (2008)</td>
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<tr>
<td><strong>Innovative Language Use?</strong></td>
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<tr>
<td><strong>Causality?</strong></td>
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<tr>
<td><strong>Access, Reach</strong></td>
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</tbody>
</table>
| Agents, Agency? | This related to earlier coding categories identified at this stage of the process such as ‘capabilities/capacities’, ‘multimodal contexts’, ‘causality’, and ‘access and reach’ and ‘innovative language use’, but related explicitly to identifying who the agents in question were and how their agency was manifest. 
Who are the agents involved in the interaction? 
How are they influencing minority language use? 
How are they facilitating or constraining interactions in minority languages? |
| Discourses of Empowerment? | This related to establishing the discourses of empowerment that were being circulated in the participants’ interactions (cf. Higgins, 1999); and how these related to the participants’ actual communication needs (cf. Fraser, 1999). 
What discourses of empowerment are referred to? 
What social or technological elements do these discourses refer to? How do these relate to the actual capacities for communication that the technology presents? 
How do these relate to the participants stated communication needs? |
<p>| Access (Visibility, | This code related to identifying the particular |</p>
<table>
<thead>
<tr>
<th>Stereotypes) Reach (Navigation)?</th>
<th>capabilities that the participants’ demonstrated in interaction. (Here the distinction between capacities and capabilities was also important). What social factors influence how the participants can make their languages visible in Social Media? What social factors influence how the participants can and do challenge stereotypes in these media? What social factors influence how the participants can navigate the networked structures that these media present in order to engage in communication in their languages?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Innovation/Media Innovation?</td>
<td>These related codes identified aspects of the participants’ interactions that I considered to be socially innovative (following Moulaert et al., 2013; Mulgan et al., 2007) or to constitute instances of Media Innovation (following Storsul and Krumsvik, 2013). What aspects of the interaction are socially innovative? How and why do they fit under this category? What aspects of the interaction could be considered to be instances of Media Innovation? How and why do they fit under this category?</td>
</tr>
<tr>
<td>Instrumentalization? Innovative Language Use?</td>
<td>This category related to the operationalization of Feenberg (2005)’s theory of instrumentalization, and to its direct relation to language use. I identified instances in the data where the participants undertook processes of instrumentalization in order to create new opportunities to communicate in their languages. What kind of instrumentalization is taking place? What technological platform or genre does this refer to? How is the capacity for communication being negotiated? What capabilities are required in order to do this?</td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>Implementation Guide</td>
</tr>
<tr>
<td>----------------------</td>
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</tr>
<tr>
<td>Capabilities/Capacities</td>
<td>The implementation of the code at this stage related to establishing its centrality to the overall theoretical argument. This category was considered essential because it indicated what technological ‘capacities’ the participants encountered, and the ‘capabilities’ they needed to mobilise in order to use minority languages in these contexts. What capacities are used to communicate in minority languages? What capabilities are required in order to use these capacities? What processes of negotiation are required in order to establish the relevance of minority language use? How does the relationship between these capacities/capabilities influence/generate processes of innovation?</td>
</tr>
<tr>
<td>Hybrid Contexts</td>
<td>This category built on considerations about multimodality and the sources of this kind of content. These codes were further refined to the category of ‘Hybrid Contexts’ because they related to both the kind of content (or the modality of content) that was being communicated, and the source this was coming from – whether commercial or social, in a minority language or not. What kind of content is sourced and circulated? What sources does this come from? How do the hybrid contexts this data relates to influence opportunities to communicate in minority languages, and consequently processes of innovation?</td>
</tr>
<tr>
<td>Innovation</td>
<td>This category builds on earlier categories of codeswitching and instrumentalization. It related to the</td>
</tr>
<tr>
<td>Identification of innovative practices for creating new opportunities for minority language use.</td>
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<tr>
<td>------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>What kind of innovation is occurring?</td>
<td></td>
</tr>
<tr>
<td>Why is this necessary?</td>
<td></td>
</tr>
<tr>
<td>How is it facilitated/constrained?</td>
<td></td>
</tr>
<tr>
<td>How does considering the participants’ practices as innovations help us to understand more about how they are facilitated or constrained?</td>
<td></td>
</tr>
<tr>
<td>This category related to the earlier categories of causality and discourses of empowerment (in particular). It related to establishing the conditions for empowerment that the data revealed and how these influenced minority language use.</td>
<td></td>
</tr>
<tr>
<td>Are the participants empowered to communicate in minority languages in Social Media?</td>
<td></td>
</tr>
<tr>
<td>What capacities of Social Media present the conditions for empowerment?</td>
<td></td>
</tr>
<tr>
<td>What capabilities are required in order to bring about this empowerment?</td>
<td></td>
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<tr>
<td>How does this related to the broader discourses?</td>
<td></td>
</tr>
<tr>
<td>This category related to the identification of the ranges of agents that influenced how the participants could communicate in minority languages. Both actors and actants were identified as being able to influence these interactions.</td>
<td></td>
</tr>
<tr>
<td>What agents are involved in these interactions?</td>
<td></td>
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<tr>
<td>How are they facilitating or constraining minority language use?</td>
<td></td>
</tr>
<tr>
<td>How are they facilitating or constraining innovation to create new opportunities for minority language use?</td>
<td></td>
</tr>
<tr>
<td>What is their role in facilitating or constraining these innovations?</td>
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</tr>
<tr>
<td>This category was considered central to the overall</td>
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</table>
theoretical argument for two reasons. Firstly, it related to the methodological approach taken and how this influenced the privacy of the research participants and third parties (or what I termed ‘ancillary participants’). Secondly, it related to identifying how considerations about privacy influenced the extent to which the participants engaged in innovative processes to create new opportunities to communicate in minority languages in Social Media.

How is the privacy of individuals impacted by my research process?
How can I implement strategies to ensure that I don’t unduly encroach on the privacy of individuals?
How are processes of innovation to support minority language use influenced by the participants’ privacy management strategies?

<table>
<thead>
<tr>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>This category related to the overall theoretical argument because it revealed the different kinds of motivations that can drive the creation of new opportunities to communicate in minority languages. What motivates the participants’ actions? Are the intrinsically or extrinsically motivated? How do these motivations influence their actions?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Needs: Access, Reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>This category was central to the argument because it identified how the needs of ‘access’ and ‘reach’ were considered relevant by the participants, and how this in turn influenced their engagement with the creation of new opportunities to use their languages. How do the participants articulate their own needs in terms of minority language communication in Social Media? How do these relate to the theoretical needs of ‘access’ and ‘reach’ that have been identified in Minority</td>
</tr>
</tbody>
</table>
| **Social Media-Innovation** | Language Media Studies?  
What technological capacities/social capabilities are required to address these needs?  
This category was constructed to highlight the relationship between practices that were socially innovative and undertaken in media contexts to create new opportunities for minority language use.  
What are the central attributes of Social Media-Innovation?  
How are these manifest in the participants’ practices?  
How can understanding this support broader practices that aim to address social needs in media contexts? |