# Understanding the Role and Helpfulness of Online Resources in the College Search Process: Comparative Analyses

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Master of Philosophy in Higher Education

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# Abstract

This thesis is, in addition to a catalog of the role that online materials play in college selection, an expansive exploration of the manifold factors that go into the selections students make about what college or university they should attend. It strives, in essence, to highlight why an individual young person might favor one institution over another, even if the latter offers what seem like compelling reasons for its selection. The impact of online resources in shaping student choices thus becomes a critical area of needed inquiry to the extent that as it requests to contemplate whether or not online resource materials might distort the priority students give to various factors and lead them in the wrong direction. Conversely, of course, online research materials could be quite helpful in aiding students to make the correct choice, as opposed to the easy one.

In its theoretical propositions, this thesis refers to the work of Randall G. Chapman, an academic from the University of Alberta, as it offers a credible theory of college selection. The model describes specific stages of the college search process experienced by students. Discussion of Fishman's (2015) college decision survey will follow Chapman's model. The survey offers a fundamental analytical framework that considers the factors that shape student decisions in college search process.

The study focuses on why students decide to pursue college in the first place and the factors students consider when deciding to apply to a specific college, how students choose the college and what tools they use in the process, the current online college search platforms, the advantages and disadvantages of various ones and finally the ultimate solutions for the college search process.

The analyses of this thesis work are based on comparison of three main college search platforms in USA. Three online platforms were selected, chiefly because of their ubiquity and popularity: 1) College Navigator; 2) College Insight; and 3) CollegeBoard.com. The students were freshman students in engineering programs at University of Michigan in the Mid-West United States. A total of 12 students, drawn from the first year engineering students, have been selected to be a part of the interviews. All of the students in question, as per preliminary screening, have used the above-mentioned online portals at one time or another to make their final college selections. Thus, the interviews assessed what factors drove them to choose one school over another, and to what extent the online tools above actually aided them in their

efforts. Additional interviews have been arranged with five (5) parents, and with two (2) admission officers.

A comparative analysis of three leading sites suggests that the key function of any online reference or resource site is to furnish information that students can synthesize and subsequently use. The ability of websites to offer information that is readily customizable, and the associated ability to offer information on the subject areas that truly engage students, are two services that it seems the modern Internet still does not do especially well. Greater interactivity with students, and a wider dissemination of real-time surveys of aspiring college candidates, would surely help make the Internet a more productive place for young people seeking advice on which institution is best for them. A review of the literature, this time with a broader eye, suggests that students today are very much in control of their college selection, but still yearn for interaction with others who might have insights they do not. Ultimately, it befits online resource sites to look at the findings of Fishman (2015), Burdett (2013), and this study, and recognize that students tend to have specific concerns they wish addressed, as well as peculiar preferences for going about learning all that they need to learn before they set foot on a college or university campus.

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I dedicate this thesis to my dear husband and our two lovely daughters!
I thank Allah for all blessings in my life.

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# 1 Introduction

Higher education is an area of great importance. From it springs the brightest minds of a society, and it is the institutional framework for grooming and preparing the next generation of leaders. But relatively little has been written about the countless factors that determine the colleges or institutions young choose to attend. Even more striking, there has been relatively little attention paid to the role that online resources play in college selection – and their usefulness in that capacity.

Before providing a review of the present context that envelops student selection, it is first necessary to briefly indicate the component parts of this thesis. By doing so, we can realize that the college search process is a complicated and multivariate one that constitute its own kind of way of passage for young people about to enter into adulthood.

## 1.1 College search process: the impact of available resources

To commence, this thesis is, in addition to a catalog of the role that online materials play in college selection, an expansive exploration of the manifold factors that go into the selections students make about what college or university they should attend. It strives, in essence, to highlight why an individual young person might favor one institution over another, even if the latter offers what seem like compelling reasons for its selection. The impact of online resources in shaping student choices thus becomes a critical area of needed inquiry to the extent that as it requests to contemplate whether or not online resource materials might distort the priority students give to various factors and lead them in the wrong direction. Conversely, of course, online research materials could be quite helpful in aiding students to make the correct choice, as opposed to the easy one.

Similarly, it becomes very consequential to look at the additional tools or methods that young people might use when choosing a specific institution of higher learning, for online resources are not the only implements available to them. It is quite critical, particularly for those interested in helping students to make the right choices, to know the "how" by which students choose specific schools, perhaps every bit as important as it is to know why they choose some schools over and above others. Through an assessment of the tools that students use, we can find out the extent to which the selection tools – and informational tools – available to students often compel and determine what school or college selections are

actually available to them. To expand on this subject it is, therefore, worthwhile to look at the traditional and online resources in searching for a suitable university. By so doing, it becomes possible to see how the options and alternatives have changed, and how decisional methods have become broader, more infinite, and multimodal as the Internet has provided still another vehicle for selection choices. This has not necessarily made the selection of the proper college or university easier, however.

To elaborate upon the theme introduced in the preceding paragraph, in the second decade of the 21$^{st}$ century, students have more information available than ever before, the information is more accessible than ever before, and they have more points of comparison (also more readily available than previously). But, in a real sense, having so many options, and so many data-sets, available at one's fingertips, means that the task of choosing an institution has become more complicated, the pressure to get into specific institutions (even at the local, regional level or the national level), has become more intimidating, and students are now more aware than ever before how they compare colleges, and how much they stand to lose if they choose the "wrong" institution. The bevvy of options, and research tools, now present have made what might have been once a fairly uncomplicated decision a decision freighted with second-guessing, perfection-seeking, and uncertainty. As time and space allow, this is a matter that will be examined in detail over the course of this thesis.

Suffice it to say, students in 2018 face considerable pressures that would not necessarily have been present a few generations ago, perhaps even as recently as two generations ago. Because there is more information available, because comparative data-sets are more comprehensive and holistic than ever before, and because the tools students can employ in the search for the "right" institution are far beyond what existed even 30 years ago, the expectation that students will make the appropriate choice has become more pronounced. The new world also now demands that students have some sense of the online platforms and college search platforms that exist. With the above in mind, it is necessary upon us to explore not only a wide range of online search platforms, but also the advantages and disadvantages of various ones as these strengths and weaknesses manifest themselves. Which college search platforms appear most comprehensive, effective and beneficial to students? Which ones fall short? A comparison of these make a point on the complexity of the challenge that inexperienced high school students – or even young people returning to school after a brief time in the workplace – confront when they try to keep up with their peers and select the right institution that will give them the right step forward in life. Students in 2018 are using Internet (e.g. social media platforms), which is in a state of constant developmental stream;

online college search platforms and institutional websites are also in constant flux as they strive to steer – some might suggest manipulate – young people into enrolling. Thus, at the same time as young people are being pressed into significant decisions that could shape their future pathway, they are being exposed to a still-novel technology that possesses the capability to manipulate them as much as educate them.

Finally, it seems imperative to examine best practices or recommendations that can aid young people as they struggle to find the right school for their skills, ambitions, and prospective career. In addition, it seems critical to examine what ultimate solutions may be found for the college search process so that students can do what is right for them. In pursuit of this aim the research of Randall G. Chapman, an academic from the University of Alberta, will be discussed further, as it offers a credible theory of college selection. Finally, students must be aware of the different informational sources– television, text-based, online, even introductory video – available to them. But they must also be able to prioritize the different informational tools at their disposal so that the ones that offers the most objective information, and the ones with the greatest credibility, are privileged above all others. Students who cannot distinguish between reliable and unreliable sources, or between empirical and relatively objective data-sets and institutional propaganda, in most cases will make choices that might cost them money, time, and maybe the future they want.

## 1.2 College search process: the impact of social demographics

At this point, a review of the context is needed. To begin, universities and colleges comprise a startling group of students from families of different outcomes. Some students will come from modest backgrounds; other students will come from exceptionally wealthy and privileged backgrounds. Some students will come from homes that value education; others will come from homes that do not. And some students will come from homes that offer students a rich foundation of love and support, while other homes will not. Even today, many institutions fail to appreciate the extent to which class-based variables determine student choices, decisions, persistence, and capacity to flourish in post-secondary education (Ward et al., 2012, p.70). For the purposes of this study, it may very well mean that students in lower-income or less-privileged homes are not given a proper guidance to make smart choices when faced with those choices in an online platforms. It may also mean that a great many students are simply unfamiliar with Internet tools and lack the experience and skills to use them to full advantage. Online resources, in the context of searching for a suitable college or university

institution, can thus become confounding items instead of tools that boost personal growth and future success.

Moreover, beyond the fact that the educational system has not yet arrived at a perfect means of ensuring reliable matriculation for lower-income students who pass the obligatory intellectual and academic doorway upon entry, there is also the fact that schools and institutions have not yet been able to come up with tools to help students who – as discussed directly above – seem to have the intellectual capabilities to excel at school, and seem to have an appealing track record of success in academic pursuits, but who nonetheless go adrift during their undergraduate career (Smart, 2005). Many of these failures are plainly attributed to psychosocial and psycho-cultural deficits that restrict students from lower-income or minority backgrounds (Smart, 2005). But what is regrettably overlooked is that students who choose the "wrong" institution – one that fails to offer them the supports they need, the guidance they need, or the opportunities they seek – might fail on this account alone. Online resources can be an effective tool for getting students into contact with institutions that offer the services they seek, but online quality control, the sheer multiplicity of options, and the fact the technology does demand a measure of skepticism and critical assessment, can all combine to steer students down a path that leads to nowhere.

Online selection is a vitally important process carried out by young people who may not necessarily know their own strengths and weaknesses. For instance, the Primary Research Group (2008) reports that undergraduate attrition rates are often greatly impacted by the quickness with which an institution can get at-risk students in touch with competent and carefully vetted tutors and academic counselors. A high school student, who is using online resource tools to select an appropriate institution for him or herself, may not be aware that they need help in a specific area upon arriving at school – particularly if they have secured satisfactory grades in that area in the past. And, it's adequate to say, when struggles begin in their undergraduate career, they may feel too intimidated to come forward, or may resist further assistance. Part of using online resources optimally in the college search process is having a healthy self-awareness of what institution will best meet one's needs – and best address any perceived shortcomings.

Finally, students in the 21$^{st}$ century who are engaged in using online resources in the college search process are faced with an online higher education industry that carefully pursue them in hopes of securing their money – or their parents money – for a minimum of four years. Institutions of higher education having sophisticated marketing strategies, a keen insight into the socio-demographic group they are targeting, and professionals dedicating to

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convincing young people that a particular school is the perfect place for them. In many respects, universities and colleges are not substantively different than institutions in the business world that seek your money, and will eagerly employ a various arrangement of tactics, strategies, marketing ploys, and advertising novelties to attract young people. The marketing strategies that can be applied to the Internet and to online resources are vast, and often times quite subtle – and they have been for a while (Chase & Hanger, 1998). Beginning in the last half of the 1990s, aspiring college students began to migrate away from text-based tools to the Internet when seeking ways that might aid them in selecting the college of their dreams. But higher education institutions anticipated the shift online and, even by around 1997, were developing models, concepts and tools for attracting the next generation of American college students (Magna Publications, 1997). Students who do not know these tools and strategies, who do not know how to recognize between reliable online materials and ones that are not, are certain to be a victim of them. Again, the use of online resources in the college selection process can be either a blessing or a nightmare.

## 1.3 Research problem and research questions

This thesis is a deeper look at the factors that draw students towards different colleges, and away from others. It is also a look at the role and function of various tools – both traditional and online – that apparently aid students, but also can lead them to confusion, misinformed perspectives, and to despair. Further, and most significantly, it is a look at various online resources in the college search process and which of these appears to offer the greatest aid to young students whose life-shaping decisions depend on their integrity and mindfulness. Finally, this is a didactic and educational paper. It offers practices and some recommendations for inexperienced young people who understand the value and necessity of a post-secondary education, but who are in danger to make the wrong choice. This dissertation aims to help young people help themselves. The questions are formulated in the following manner:

1. **What are the factors influencing students' decision to choose a specific college?**

2. **What tools students use in choosing university? How students choose university? What are traditional and online resources in searching university?**

3. **What are the online platforms and analyses of current college search platforms? What are advantages and disadvantages of those platforms?**

4. **What are the ultimate solutions for the college search process?**

The first question focuses on why students decide to pursue college in the first place and the factors students consider when deciding to apply to a specific college. The second question takes the discussion one step further by exploring how students choose the college and what tools they use in the process. The third question then analyses the current online college search platforms, but also the advantages and disadvantages of various ones. Finally, the fourth question concludes and points out the the ultimate solutions for the college search process.

## 1.4 Thesis outline

The paper begins with *Chapter I*, **Introduction,** which presents broad discussion of problem, purpose of the study and presentation of research questions. *Chapter II*, **Literature review** will examine previous studies made on the topic of college search process. Further, Chapman's model (1986) will be proposed in *Chapter III*, **Theoretical Propositions and Analytical Framework**. The model describes specific stages of the college search process experienced by students. Discussion of Fishman's (2015) college decision survey will follow Chapman's model. The survey offers a fundamental analytical framework that considers the factors that shape student decisions in college search process. **The Empirical context, Research design and Methodology** of the study will be presented in *Chapter IV*. **Results** of the interviews conducted by Author will be discussed in *Chapter V* followed by *Chapter VI*, **Discussion** where research questions will be answered. The paper will be finalized with *Chapter VII*, **Conclusion**.

# 2 Literature review

## 2.1 Challenges of online portals: access, usability and availability of data

Historically, there have been many opinions that the Internet has not offered much and not all information is available online yet. For instance, Tierney (2014) writes that most online sites offer information – such as average tuition, geographic region, average test scores – that were widely available in hard copy materials pre-dating the age of the Internet. He also writes that the overwhelming majority of online sites do not offer the kind of information students normally consider most important: faculty and institutional standards; academic reputation; and the availability of desired majors (Tierney, 2014, p.86).

Dowdall (2013) notes that choosing the right institution is a bargaining process whereby perspective students – and their families – carefully weigh the financial costs of attending a selective institution with the perceived gains; the cost is quite often a predominant factor in whether or not students elect to attend an institution that might otherwise readily accept them. Given the consequences and importance attached to cost considerations, it seems appropriate that any effective website or portal, if it truly wants to fulfill its function as a creditable resource of information candidate students can use for their own benefit, should include interactive cost calculators or other such devices that give students the chance to calculate what money they will need to pay tuition, what money they will need for basic living expenses, and what revenue sources (such as grants or bursaries) are available to aid those students in meeting their financial obligations. A list of sundry items for which students will have to pay while enrolled in college or university can be produced on any website, with an interactive calculator or its equivalent the platform or the website can give students an important insight into what they must do if they want to remain financially secure and not end up critically hampered by high debt in the future.

One of the challenges of the Internet is its function (and functionality) and the problem is that it is not available to all people in equal portions; likewise, it is not a tool that may be used with equal efficacy by all users (though this is certainly true of other selection instruments, as well). For example, research by Tierney (2014) does show that white adolescents with college-educated parents are much more likely than other ethnic/racial

groups to access the Internet for informational purposes (p.64). This finding seems indicative of a larger reality that is occasionally ignored when evaluating the utility of Internet portals and websites in conveying to students the information they need: while the Internet may serve a vital information-gathering and information-collecting function, and while the Internet may be quite useful at guiding students towards their ultimate desired destination, it is not a tool that is found in every home (or that every home can afford), and it is not a tool so engaging and accessible that all people can use it with equal or equivalent benefit. There may be no ready resolution of this problem, but websites and portals that carefully organize information, are logically ordered, and that have a strong level of interactivity might well be the best ones for aiding as many students as possible.

Another issue is that many sites and portals dedicated to the college selection process are outdated, and there is a need to make those webpages and sites more interactive, customizable, and accessible to end-users. A good example of this occurs when one considers that the static online presentations devoted to the college selection process described a generation ago (Reese, 1999) seem suspiciously similar to the unsatisfying online sites described by Tierney (2014) that seem to lack the information and services students truly need. In that regard, identifying which of the three portals that are under investigation is most prepared to liberate itself from the outdated practices of the past is a meaningful step towards developing an online framework that will best serve the needs of all students seeking help.

Additionally, very few sites have, within their contents, all of the data that students need to make informed decisions; quite often, students must poke through a number of online sites to find information. For instance, as Morkes (2004) remarks, there are many sites dedicated to financial aid and to funding options, but not to broader institutional markers that might distinguish the appeal of one institution from the appeal of another one. It seems very consequential and desirable that online sites dedicated to aiding students in the selection and choice process should offer a few range of services that allow them to resolve as many pertinent questions as possible at one location. Integration of information, in short, is another function that should separate good sites from average ones, and it would definitely appear that students and parents alike would appreciate a site, which offers a measure of convenience.

Staying briefly with the matter of financial aid, as discussed by Morkes (2004) above, functional third-party websites can get an appreciable position through what financial aid information they present to students and their families. For example, Avery and Hoxby (2004) report that high-skilled students, the ones most likely to pursue their education at

highly selective institutions, are mostly indifferent to the distance of an institution from their home, care little for whether or not it rests in their home state, and are indifferent to whether or not it is a public institution. But these students are very interested in the cost of tuition, in the cost of room and board, and are most determined to attend the most selective colleges – but at a financial cost that is comfortable and ultimately manageable. These young people are drawn by the values of loans, by the values of institutional grants, and by the school's capacity to assist students in achieving a modicum of work-study balance (Avery & Hoxby, 2004, p.288). An essential function of any online resource is to give the perspective students the comprehensive range of financial aid and support data they require so that they can find the exclusive institution that best suits their individual needs. Once more, an online reference site, which is customizable and sensitive to the special financial concerns of students, will be more valuable than an online reference source that simply falls short in this area.

Relatively, online services that strive to meet the informational requirements of college applicants may not always address the needs of students who are looking at two-year programs or who are most interested in private institutions. It is not unknown for sources, series and catalogs that usually describe and define a great many colleges and institutions (and their key features) to fail to provide adequate information for two-year colleges and proprietary schools (Snider, 2009). This is another function that a strong website should meet: it should aggregate as much information as possible about as many different types of institutions as possible. Such diversity will aid perspective students who may want online information on institutions, but who cannot find a comprehensive site that meets their needs.

Still, as has been the case for some time, the Internet does feature a group of sites that do acknowledge the varied needs of a diverse number of students – even if specialization, as opposed to comprehensiveness, is a predominant feature. To be specific, there have been websites designed for students seeking vocational and technical colleges, students seeking entry into conservatories, students seeking careers in art and design, and even at least one major website crafted by the National Association for College Admission Counseling that is dedicated to helping students make the right post-secondary choice (Buck & Schoenberg, 2008). The question that this diversity and multiplicity raises, however, is to what extent most students – or even most academic guidance counselors – are actually aware of all of these narrowly defined websites? Without the benefit of a few standart sites that contain relative information (and which are customizable and easily accessible), it is far too easy for students to miss out on a site that might contain the bit of wide-ranging information they were seeking to make a wholly informed choice.

Staying with the matter of sites offering a wide and comprehensive range of information that can be used to serve the interests of college applicant, research into student selection and choice behavior reveal that students can be adequately grouped under two broad classifications: there are students who are *maximizers* (they want to secure the very best option, even when the variety of choices or options available is extensive); and there are *satisfiers*, who will be content with any choice that meets a relatively broad set of personal criteria (Woolls & Loertscher, 2005, p.262). Websites that are striving to meet the needs of students who may be reliably classified as maximizers, are therefore tasked with offering a wide span of information that must be eclectic and varied – to say nothing of being comprehensive. The function of any site serving to students is to furnish them with the data they need; the usefulness of this data, however is shaped by lots of things – not least of them being the ability to think as a maximizer does and to thus ensure that students have every single data-set necessary to make a wise choice.

One of the striking things about Internet-based research carried out by students to select the optimal institution, is that it can actually present young people with unpredictable challenges vis-a-vis gaining entry into their school of choice. For instance, O'Shaughnessy (2012) reports that a growing number of American students will peruse informational websites and institutional websites to gain insight into a particular school and whether or not they wish to become a student. These students do not attend school fairs, do not visit the school's Office of the Registrar, or meet with any institutional academic counselors beforehand, and do not request information packages from the institution. They are stealth applicants, in effect, and they face relatively more risk of not being accepted because school admissions officers and staff have no idea who they are or what they necessarily want (O'Shaughnessy, 2012, p.86). All in all, there is little question that the Internet makes things much more convenient for information-gathering students. But students who do not establish contact with the institution – or group of institutions – they find desirable, are students who may well find themselves overlooked in favor of students who have made actual contact with the school and have expressed both their interest in the institution, and their accompanying interest in finding guidance and support to make that possible. Websites that have uppermost in mind the goal of aiding students, instead of merely attempting to draw as much traffic as possible to their site, will therefore caution students on the optimal protocol for submitting an application – which invariably will include a notice to contact the institution first before applying so that one becomes an applicant and not merely just another number.

When assessing the function of choice and selection websites, it is necessary to keep in mind that the important function of any site is to give – to the extent such is possible – the information each student needs to make the right choice for him and her. The most useful websites will do precisely this, and will also embrace interactivity and customizability as distinguishing characteristics. As Bruni (2015) writes, many distinguished and highly successful people have graduated from less-exclusive institutions and left a sizable mark on the world. Thus, what matters to students should be finding the right institution for them, as opposed to an elite institution that might prove pernicious to their self-esteem, self-confidence, and even their mental well being (Bruni, 2015). Thus, the best websites and portals need to be ones that each and every aspiring college student can access so as to find the information, services and prompts that he or she needs to go where he or she can make the most out of his or her educational experience.

## 2.2 Challenges of online portals: social divide, misleading information and clever marketing

One theme that is expounded by the scholarly literature is the sharp digital divide that arises because of the ever-increasing amounts of institutional information that are now available online. The digital divide will be more discussed further, but this particular section looks at the extent to which the Internet (as a tool for college selection) may actually be driving low-income students into a very dark and difficult place relative to their more rich peers. Specifically, Daun-Barnett and Das (2013) found that the college-access web portals they reviewed actually do a fairly commendable job of furnishing students with a comprehensive range of information. Yet, at the same time, they found that many students could not access these tools, and those most negatively impacted by their incapacity to access these web portals (chiefly, youth with no home access to the Internet), were lower-income young people who were necessarily most vulnerable to the depredations and adversities arising from wrong choices (Daun-Barnett & Das, 2013, p.113). The young people who most need to make wise choices, largely owing to the fact that they have comparatively modest family resources available for education, are the very ones most likely to not be able to access the online data that would facilitate their search for the right institution. In that sense, one of the most vital challenges facing policy-makers in the 21st century is how to make the Internet universally available (or as available as current resources and technology make possible) so that adolescents and young adults who are not blessed to be reared in high-income homes (or

even middle-income homes) are still able to spend the time they need online to find out the information that is most crucial to their college choice and selection. Of course, a secondary concern is making sure that young people in such circumstances are also given the cognitive tools to navigate the Internet and to secure the information and subsequent answers they need most. More access alone is quite unlikely to be enough.

Scholars who have worked on understanding the ways in which the Internet can be pressed into service for aspiring students – as well as for undergraduates – have turned their attention to the way in which the Internet, effectively creates a class divide that can prove being destructive to the ambitions of children from lower-income homes. For example, San Pedro et al. (2017) remark that college attendance is reliably predicted by middle school engagement with, and mastery of, digital environments. Students who come from homes that don't have access to the Internet are students who face the challenge of being far less experienced with – and, as a general rule, thus far less introduced to – the Internet than students for whom the Internet has been a staple of their formative years. Disadvantaged young people thus cannot exploit websites and web portals with the facility and skill of those who have always had high-speed Internet, have always been able to play around and experiment with a personal lap top, and who have access to the latest hand-held gadgets and devices. Although San Pedro et al. (2017) do not discuss the issue in details, it seems manifest that early access to the Internet – and early competence with searching ability – facilitates entry into post-secondary education. With this in mind, websites that are designed to help candidate students and applicants must make their sites as intuitive and logical as possible. If they cannot do this, then a great many young people who might otherwise make effective and measured college selection and choice judgments, will end up making uninformed decisions that could potentially influence on the rest of their adult lives. Those who administer and oversee online information sources for student applicants have to recognize that not all students are as familiar with the latest online tools as those coming from wealthy homes. They need help, in short, and well-organized, well-ordered, sequential, and intuitive sites that aid them with the information they are missing.

Another challenge of the Internet is that there are plenty of website with wrong and misleading information, which may also effect on students' college search process. Hartman (1997) wrote more than a generation ago that colleges and universities were now keenly aware of how the Internet provided students with "unlimited and uncontrolled" information about any institution (p.22). The implications for both college counselors and senior institutional decision-makers were quite clear: controlling the message is much harder than

ever before (Hartman, 1997). But, what is also implied by Hartman's 1997 work is that institutions in the late 1990s were aware of the dangers and were formulating hypothetical situations and how best to respond to them. In that regard, colleges and universities have become, over time, sensitive and more careful exploiters of the new technology. They recognize that the modern institution cannot expect students to rely mainly on the presentation of campus life provided by academic counselors, student representatives, or glossy brochures. Thus, it seems intuitive to conclude that colleges and universities are now doing a relatively better job of screening out unpleasant information, they are much more attentive to monitoring their online reputations, and are employing the latest and most sophisticated marketing tools to aid them in drawing in new consumers (students). Students, who lack the insight or critical thinking skills to identify when they are being misled or manipulated, may end up choosing wrong institution. Once again, circling back to the preceding paragraph, the literature seems to make it clear that students need exposure to the Internet and need to establish the selective consumer skills that Chapman (1986) writes about in his formulation of college choice and selection processes.  Chapman's work will be discussed further in Theoretical part of this paper.

In the 21$^{st}$ century students can use the Internet as a tool for learning more about institutions to the extent it is possible today, when higher education institutions are clearly mindful of guarding their public image and when colleges and universities have become increasingly proficient at exploiting the Internet to learn about prospective students and what they are seeking. Particularly, educational institutions have become more and more proficient at exposing the college choice factors shaping student decisions, and then using those choice factors as animating items in institutional marketing strategies (Hoyt & Brown, 2003).

Though its not explicitly stated but it would not be much effort for some higher educational institutions to utilize social media and other informal online platforms and venues to gain insights into what prospective students really want, how they really feel, and what sort of marketing messages will truly most impact them. This information can be used to craft marketing messages that hit upon key points so that students, unaware they are being manipulated, choose institutions because of a clever marketing message that tells them what they want – as opposed to what they need to hear. The function of online portals and sites is to give students another means of learning about an institution, free (so far as it is possible) of the marketing message bias that comes from sites and portals monopolized by institutions themselves. That is not an easy task for any third-party site – mostly owing to the reality that institutions can choose (or not choose) to share information with those sites at their own

discretion. Nonetheless, the portals that are the most useful are the ones that give young candidate students and applicants a real sense of what an institution truly offers. Still, it is probably most accurate to conclude that most of the resources, reside with the institution and not with the student.

Underscoring the danger of lacking sophistication or discernment when accessing online information is the fact that universities and colleges around the globe are increasingly exploiting social media platforms – such as Facebook, LinkedIn, Youtube and Twitter – to recruit prospective students (Ragini 2016). Because of the informality of social media sites, and because of the sociability that these platforms encourage, it is easy for uncritical students to be drawn into selecting an institution simply because of its facility for exploiting social media – and not for the actual benefits it offers new students. Although social media is not discussed expansively in this paper, the willingness of post-secondary institutions to use such platforms for their own ends plainly shows the danger in students using online resource sites without considerable wariness.

Parents are, themselves, not immune from being attracted by a clever marketing plan. And, neither are they immune from manipulation. Several years ago, Schneider and Buckley (2002) looked at the expansion of school choice in the United States. Among other conclusions, they expressed some concern about the "information search patterns" of parents as they sought out the school that best met the needs of their children (p.133). And summarizing their findings, they argued that parents will often make poor choices, or at least unfortunate ones, and the choices they make can actually lead to sharpened socio-economic divisions within the education system while also (paradoxically) reducing the pressure upon at least some institutions to improve their academic performance (Schneider & Buckley, 2002). If parents, like their children, make impulsive decisions or ones that fail to consider all of the demands or salient considerations, then it seems inescapable that they will be as vulnerable to a clever marketing plan as their children when an institutions or agents use the Internet as one of many tools to harvest more consumers/students. Once more, third-party informational sites can help by assisting families in addition to the young people whose futures rest on the decisions they make at a young inexperienced age. A website that functions properly will have information for parents, too, or will at least direct parents to directories and listings that can aid them. And a good site, as one of its central functions, will provide answers to the questions that parents normally ask. This means interactivity, the ability to allow for feedback from visitors and consumers, should be a core function of any website. If parents can be persuaded to make conscientious choices, or at least persuaded to

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assume well-informed positions, then those same parents can help their children to make the right decisions for themselves. The final decision reside with the young person himself or herself, but parents can help a lot, and strong online resources can give parents the tools and insights they need to be good guides.

One other unpleasant reality in college choice and selection is that it is conjoined to the selection of a suitable major; the combination of having to make two such significant decisions at an early age can be overwhelming for many students. Indeed, Mullins Beggs et al. (2008) are quick to emphasize that the choice of a particular major is often cited as the decision Americans most regret later in life. And the same group of researchers, citing the words of many undergraduate students themselves, grimly acknowledge that many young people make impactful decisions about their academic futures for less than rational reasons (Mullins Beggs, 2008, p.381). Armed with this information, it is clear that young people (and even their families, conceivably) are responsive to clever marketing efforts and to impulsive decisions made without reviewing all of the material that needs to be reviewed. Online portals and sites serve the function of giving information to people who might otherwise be largely reliant upon promotional materials issued by colleges and universities. And, while these portals and sites cannot save everyone from poor decision-making, they can absolutely offer guidance for best practices. In the struggle to make the right decision, third-party online resources stand very much as the arbiter that protects students from institutions that are, first and foremost, preoccupied with generating revenues for themselves.

The current situation is a difficult one for college entrants, not least of all because of some of the factors sounded above. But what must also be borne in mind is that third-party sites that offer critical institutional information are going to be more important in the years just ahead. For example, there is some evidence, followed over the past decade, that students are finally becoming more consumerist in their approach. In other words, a growing number are now seeking institutions that offer the programs which best promise steady employment and career opportunities upon graduation; the same data reveals that students are becoming progressively more conscientious about selecting those programs and majors at institutions which offer affordable pricing (Maringe, 2006). In that sense, the function of a third-party online site is to be a tool for young people who are acting as discerning consumers to make the most important choice they may ever make in their lives. A website, or any kind of online resource, that can give students the information they need to make an informed and conscientious choice about their future school and major, and that can steer them toward funding mechanisms and economically viable alternatives, is one that will be performing a

function of great import. More than that, the breadth and depth of the information it offers in this context will largely determine its usefulness to people who may have few other avenues in finding needed information. The idea of the student as consumer may not be entirely new, but it seems more salient than ever before in an age when so many students regret their chosen major (Beggs Mullins et al., 2008) and are saddled with student loans and debts upon graduation.

The functionality and utility of online resources in the college search process is shaped by many factors, and impacted by many anxieties. And the students who turn to the Internet for guidance are themselves quite diverse. Research conducted within the past two years indicates that, as convenient as it may seem, enrollment in online college courses actually has a negative impact upon student persistence and scholastic success; even though students may be drawn to online courses because of the convenience they offer, the end results generally speak to many students struggling mightily in such programs and ultimately faltering (Huntington-Klein et al., 2017). Online resource sites for college selection can very easily lead to the same unhappy outcomes when those conducting the search are not conversant with the technology or, more probably, naive and unsophisticated about the information they receive. It seems an inescapable fact that a strong resource site will teach students how to use the site appropriately, will give them prescriptive measures for synthesizing and appraising evidence, and will help them locate the people, resources and data they need to make an informed choice.

## 2.3 Online college search portals

Drawing to an end, there are a few less formal studies available that look at the best data-driven sites to begin one's online search for the right college. The analyses of this thesis work are based on comparison of three main college search platforms in USA. They are **College Navigator, College Insight** and **Collegeboard.com. College Navigator**, for example, is known as an exceptional online resource because it provides filters for degree level and type of college, while offering reliable data for almost any college in the United States (Lindsay, 2015). **College Insight** is also much lauded because it gives reliable data about cost and financial aid, admissions, programs offered, graduation rates, athletics, and general campus statistics. The downside is that the huge amount of data is not well synthesized to be easily digested by college applicants (Lindsay, 2015). Finally, Lindsay (2015) describes **Collegeboard.com** as being a very good site for those who just began their search and need

guidance through the research process. The site, incidentally, even offers a "college search step by step" for students who do not know how to begin their investigation of which institution is best for them. The site offers a modest form of interactivity by asking specific questions about the kind of school the student is seeking (customization, in short) and presents a snapshot of preferences to help students narrow down their choices (Lindsay, 2015). What is most intriguing about Lindsay's 2015 insights, and the conclusions to be drawn from our subsequent interview with 12 prospective engineering students seeking to find the right school for their future attempts, is that she describes College Insight as being the best one for sheer data breadth and depth, while the interviewees insisted, on the whole, that Collegeboard.com offered the most information on American colleges and univesities. Similarly, while Lindsay (2015) says College Navigator for its focus upon college expenses and financial data, our interviewees are much more disposed to cite Collegeboard.com as being the most effective at setting forth cost and financial aid data. The reason of this assuption could be that Collegeboard.com, since it is expressly designed for new applicants or inexperienced ones, seems to offer more convenience because it is more accessible to those young people who are still in the process of learning how to navigate and search for vital information. At a minimum, it leaves one to wonder if the interview group, certainly concerned about collegiate costs, has fully explored the benefits to be accrued from a site such as College Navigator relative to Collegeboard.com.

# 3 Theoretical Propositions and Analytical Framework

## 3.1 Chapman (1986): A Model of College Search and Choice Behaviour

Randall G. Chapman, of the University of Alberta, offers a theoretical model in his 1986 text, *Toward a Theory of College Selection: A Model of College Search and Choice Behaviour,* one of the views that exist for this subject area. The implicit beauty of what Chapman offers is that it breaks down the decisional process into a schema that is at once comprehensive, logical, and neatly sequential. It also allows readers to identify specific stages of the college selection process and what each stage include– as well as to determine what students might well need at each stage to make an educated and rational decision.

To begin with, there are <u>five components</u> to Chapman's 1986 theoretical composition. Those components are as follows: Pre-Search Behavior; Search Behavior; Application Decision; Choice Decision; and Matriculation Decision (Chapman, 1986). His model, as Chapman (1986) expressly indicates, is based on the arguments that college selection is comprised of search and choice components. Because of this, he goes to some length to carefully define search and choice in the context of student college selection. Thus, a search means searching for the "attribute values" that characterize desirable colleges in the eyes of a prospective student. Chapman (1986) lists these attribute values as including cost, academic quality, the perceived future career prospects and opportunities available upon graduation, the perceived quality of life of the student while attending the institution, and various other considerations that might be of priority to the person in question (Chapman, 1986, pp.246-47). By contrast, the search phase eventually comes to a close when the application decision is made and the student has ascertained which institutions to which he or she wishes to submit admission applications. Some search activity, Chapman (1986) rightly acknowledges, is inescapable during the choice phase, as well (p.247).

Proceeding forward, Chapman (1986) states that choice refers to choosing among the institutions/colleges that admit student for academic/vocational training (Chapman, 1986, p.247). Though Chapman does not state it expressly in his work, the search process seems to be the more involved and extensive process, with the choice component being relatively small by comparison. Superficially, this should not appear altogether surprising: once the

appropriate information has been gathered, once the appropriate choices have been made the desirable attribute values and institutions, the final choice becomes a rather summary matter. However, the truth is rather more complicated. Chapman (1986) does state that "it is useful to recognize the distinctiveness of these two stages in analyzing student behavior, because different considerations arise at the search and choice stages" (p.247). If students fail to take into account the right considerations, or if they utilize the wrong information, then they may be lead in the wrong direction.

So it is important to review the different stages of the college selection process, of which Chapman (1986) identifies five as shown in Figure 1 below.

| Pre-search Behavior | → | Search Behavior | → | Application decision | → | Choice decision | → | Matriculation decision |
|---|---|---|---|---|---|---|---|---|

Figure 1. Chapman (1986), *Toward a Theory of College Selection: A Model of College Search and Choice Behaviour*

The first of these is the ***Pre-Search phase***. Pre-search behavior starts when a student identifies the desirability of a college-level education. The influence of the student's parents may spark such a realization well before the young person has reached high school. Because of this, the pre-search phase may actually extend for many years (Chapman, 1986, p.247). Chapman (1986) correctly notes that the considerable length of time usually attributed to this stage, coupled with the difficulty in assessing precisely when the pre-search behavior first takes hold, makes this initial stage of the college selection process the most difficult of all to research (p.247). What goes unstated is that a child's socio-economic and socio-demographic position, even at this early point in time, may well determine what sources and value attributes he or she seeks out, and the extent to which he or she takes full advantage of the research materials and resources available.

Moreover, putting forth his theoretical proposition Chapman (1986) remarks that pre-search activities encompass the following: readying an assessment of the costs and benefits associated with attending college (and particular colleges especially); and a corresponding assessment of the costs and benefits of alternative non-college post-high school options (Chapman, 1986, p.247). Chapman (1986) proceeds to emphasize that, in order to recognize of the possible need for a tertiary-level degree or designation, a student implicitly and

"perhaps continuously" scans a range of information sources to learn about "the availability of information sources, their content, and some information about various college options, and perhaps even specific colleges" (Chapman, 1986, p.247). Chapman's overview is sound and appealing, but he does make *the blanket assumption that all students who have seized upon a college education as necessary will invariably seek out information and assess this information in a rational manner*. Once more, not all students will implicitly seek to gather pertinent information because, sadly, many students will not have the resources or opportunity to look in the appropriate places. Chapman (1986) is essentially treating young people in high school as relatively sophisticated consumers with a clear and focused understanding of what they want in an institution – and that what these consumers want is in keeping with their larger interests and objectives. This might be asking too much of the typical young people  – particularly those in less-educated and privileged homes that do not offer the same social supports found in other family units. In fairness, Chapman (1986) does concede that "college-going behavior" can perhaps best be understood by examining the higher education participation rates of various sub-groups in the consumer market that are distinguished from one another by socioeconomic status, ethnic group membership, gender, and religious affiliation. His own considered view, however, is that personal attitudes and values toward higher education correlates are even more reliable predictor of college-going predilections (Chapman, 1986, p.247). It is worthy of note that Chapman (1986) draws his conclusions with regard to higher participation rates among different sub-groups from his understanding of the literature in the marketing segmentation area (Chapman, 1986). We can confidently argue that educational institutions, far more than young students, have a sophisticated and nuanced understanding of how market segmentation works to explain the reason of students' decisons regarding choice of specific institution.

The second stage to be explored is ***Search Behavior***. This second stage arises, per Chapman (1986) when the student has firmly resolved that a college education is desirable and needed. It is a stage that usually initiates during the high school years (Chapman, 1986, p.247). In keeping with a theme sounded in the paragraph above, Chapman (1986) places considerable faith in young people as consumers, insisting that the search behavior phase is marked by "extensive and active acquisition of information about possible college alternatives. Knowledgeable 'others' are presumably consulted with great frequency and depth...(and) students typically write to a number of colleges to request descriptive information, such as college catalogs and relevant brochures" (Chapman, 1986, p.247). As far as the "knowledgeable others" described above, these can include family and loved ones,

teachers, guidance counselors, and college alumni (Chapman, 1986). Chapman is comfortable in making the assumption that students can rationally cross through the information sent to them, and can rationally and appropriately seek out the people best positioned to aid them. Dispite of Chapman's faith in young people, *not all students will have support to know where to look, and who to contact.* Nonetheless, he highlighted the sequence by which a young person becomes engaged with higher education and begins to move towards selecting the college best suited for him or for her.

One vital aspect of the theoretical and analytical framework set by Chapman (1986) is that he freely acknowledges that students also receive unsolicited information from individual colleges. This is an insightful point to the extent that it indicates an awareness of how colleges (even then, and certainly today) tried to manipulate student search behavior. In that regard, Chapman (1986) calls attention to the phenomenon of the student-as-consumer who is also acted upon by institutions and entities wanting him or her to select them instead of competitors. Chapman (1986) does seem to suggest that students are resistant to marketing efforts of institutions as they are extremely invested for active researchers during the time in which they are pursuing the right institution to select.

Chapman (1986) holds that prospective students are interested in weighing the costs and benefits of different institutions. He subsequently asserts that one of any college's critical and relevant benefits are the academic dimensions of the institution, the career prospects that are engendered by entering (and completing) programs at the institution, and the quality of life that the institution offers students (Chapman, 1986, pp.247-248). These positive attributes are described as consumption and investment benefits (Chapman & Litten, 1984). Students who are engaged in search behavior explore a diverse range of information sources and form a belief about what life would be like at the particular institution. "Presumably", as per Chapman (1986), a relatively wide range of college alternatives are explored in the search phase, but it may well be in many – or even most – instances that the number of colleges that are seriously considered are only a handful. Chapman (1986) also writes that the search phase may also encompass identifying the right attributes to consider – though it is well-known that the right attributes will vary among prospective students, even as some attributes will be commonplace among a great many.

Chapman's theoretical proposition does rest upon a general framework of how student research into college selection *should* be, but may not be in precise fact. Nonetheless, his work stands out for how it lucidly details the gradual steps by which a student proceeds from thinking about college to choosing a college.

Finally, Chapman (1986) acknowledges that the search stage is both extensive and intensive (Chapman, 1986; Chapman & Litten, 1984); it is also a period wherein students prioritize and discern particular college alternatives to such an extent that they identify those few institutions that possess the attributes (in sufficient quantities) they seek, and submit to them applications for admission (Chapman, 1986). At this point, no further search effort is deemed necessary, insofar as the student has perceived the institution's attributes to his or her satisfaction, and no more promising college alternatives are felt to be available (Chapman, 1986). In analyzing portals and online tools for student college selection, it is critical to evaluate the extent to which they exhaust a student's need to make further research efforts to ascertain the qualities of perceived institutional attributes (features). In other words, it is important to analyze online mechanisms to evaluate how effective they are at ensuring students have the information or data-sets they need to arrive at a comprehensive decision about which school meets all of their expectations in such a way that further research will not give a better outcome. This stage might contain the most critical aspect of any analytical framework devoted to identifying optimal online resources for college selection.

The third consequential stage is the ***Application Decision***. This marks the end of search behavior and is distinguished by students applying to particular colleges. Chapman (1986) remarks that this stage features students applying to colleges in which they have an interest; it also features students applying to colleges to which they are likely to be admitted. Although not stated expressly, we may conclude that a further analytical component in assessing any online resource is the extent to which it informs students of not only institutional attributes, but also what specific scholastic skills and competencies, and grades, the institution seeks in new arrivals. While Chapman (1986) admits that it is impossible to know everything that goes into a student's final decision to formally apply, it does seem intuitive that student expectations of admission probability are relevant factors to consider. Chapman (1986) also remarks that only colleges viewed as being "minimally acceptable" in all of the major dimensions favored by the student are going to receive formal applications from the aforesaid student (Chapman, 1986, p.248). The complicate phaze of the application decision is when a student after having got through other deciding variables and data-sets, must now pass through the financial aspects of their decision to apply for entrance into a particular school. In this case, students may apply to colleges that are too expensive – which means that successful entry will necessitate the availability of sufficient aid (Chapman, 1986). A strong online resource in the contemporary age will, also reveal the costs associated in selecting a particular institution or set of institutions. As a final note, Chapman (1986)

remarks that many students will invariably apply to a school that occupies a low rung or preference among their selected institutions, but which offers a high-probability of admission; this seems rooted in an instinctive human need to have at least one positive admission decision be in the offing (Chapman, 1986, p.248).

The next stage of the college selection process is the ***Choice Decision*** stage. In this stage, the student is fully aware of all relevant college attributes, and of the availability of the financial aid – scholarships, grants, and loans. During this penultimate phase, students will be called upon to make or accept trade-offs between various institutional attributes as they manifest themselves at different institutions (Chapman, 1986). This eventually means researching "determinant attributes" (Alpert, 1971) which will make the ultimate determination in terms of which institution the student will attend. In many cases, students will make their final choice at this point (Chapman, 1986, p.248). However, financial considerations and other personal considerations can cause a student to hold off acceptance of a position until a somewhat later date (Chapman, 1986). One other critical analytical factor that should be employed at this stage is the extent to which existing online resources provide students with critical information and direction, when various circumstances arise. It should also feature a component that allows students to weigh and consider determinant attributes when they are assessing which of two or more desired institutions offers the best educational and life experience outcome.

The last part of the theoretical proposition set forth by Chapman (1986) in his Model of College Search and Choice Behavior, is the ***Matriculation Decision.*** At this stage, the final college choice decision is made. Specifically, students may elect to attend another institution distinct from the one they selected initially as the institution they wished to attend. In many cases, students will switch schools if a more desired school acknowledges a new opening, or if family circumstances make it necessary to attend a different institution (Chapman, 1986). It should be fairly evident that a significant factor in recognizing the desirability and effectiveness of an online resource is the manner and extent to which it offers concrete guidance and advice for students who find themselves in doubt about whether or not they should attend the institution of their original choice.

The Model of College Search and Choice Behavior set forth by Chapman (1986) is very effective in breaking down the process by which students select a college. It treats them as serious consumers who seek out relevant information, prioritize information, and proceed from there to formulate reasonable determinant attributes that make it possible to distinguish between agreeable institutions and the one institution which they truly feel best serves their

needs. The theoretical proposition set forth by Chapman (1986) is somewhat dated, however, and does not have the luxury of expressly addressing the role of online resources in shaping the final choices of students. It does, though, present a vision of how each stage of the selection process should look and, therefore, it gives us means of identifying specific criteria that all online research portals should satisfy if they are to make the right decisions. Not least of all, a strong online portal will be defined by providing timely information that includes not only data about the academic experience, but also data about supplementary (support) services, and data about financial aid and how best to access it. Furthermore, an effective online research tool will furnish students with information at the terminal matriculation phase so that they can decide how best to proceed when they are having doubts about their college selections up to that point in time. If a portal can provide comprehensive information and support at each of the five stages of Chapman's 1986 theoretical proposition, then that portal is a useful guide relative to other portals that also appear designed to help students.

With a reasonable theoretical proposition and associated framework in place, it is appropriate to take a closer look at the analytical framework which best assesses each online resource. Clearly, the implied criteria that must be satisfied at each stage of the Chapman (1986) College Search and Behavior theorem is illustrated by the tasks that students must successfully complete at each point; a portal or online resource that fails to aid students in completing these tasks at one or more of the previously mentioned stages cannot fulfill its role and offer appropriate assistance. But the analytical framework can extend even further, as well.

## 3.2 Fishman (2015): College decisions survey

Fishman (2015) provides a comprehensive survey of US residents (between the ages of 16 to 40) who are planning to enroll in four-year college programs within the succeeding 12 months. To further expand of survey subjects, individuals enrolled in their first year of a two-year and four-year college program were also included in the survey because of their familiarity with the college selection process (Fishman, 2015). Fishman (2015) writes that all data was weighted to ensure that it was balanced and represented the diversity of the large populace. Fishman (2015) also writes that her study employed the Harris Poll's weighting algorithm with its concomitant propensity score – chiefly because it made it possible for the results to be projected to the entire pertinent population (Fishman, 2015, p.3). What Fishman (2015) offers us is a fundamental analytical framework that considers the factors, which

shape student decisions and considerations, and reveals the kinds of questions that online resources must answer if they are to satisfactorily aid students. In that regard, a successful online resource provides university and program rankings and addresses questions on costs, availability of financial aid, academic reputation, average starting salaries upon graduation, and social support systems (please see Fishman 2015, p.5). In conclusion, to analyze online resource materials we must examine and recognize the imperative that the online portal must comprehensively and thoroughly treat the factors of most importance to prospective students.

Fishman (2015) based on her findings proposes an integrative framework which can be helpful in understanding students' preferences in three different stages of a decision making process as illustrated in Figure 2 below.

Kimberli Burdett (2013) also offers an implicit analytical framework, which illustrates the kinds of questions and concerns that online resources need to satisfy if they are to be genuinely helpful. Interestingly, Burdett (2013) reveals that students – as of her 2013 dissertation – found traditional sources (campus tours and college admission counselor visits being the two most prominent) to be more effective than online resources in helping students arrive at their final selection (p.149). This seems to indicate that not nearly enough online resource tools are able to mimic or approximate the interactions and informational exchanges that define student contact with counselors and campus tour directors or aides. Thus, another item that should be explored is the capacity of an online college search and selection resource to be customizable, scalable and individualized, so that individual students essentially feel as though they are "talking" to an entity that can provide them with information of special importance to them as a person. To create such a proposition is, suffice it to say, extraordinarily difficult. But, given what we now know about the capacity of social media to craft very individualized marketing messages for individual users, there seems little reason why similar practices cannot at least be considered so as to aid prospective students in picking the college that is best for them.

Both Burdett (2013) and Fishman (2015) are valuable tools that give researchers a chance to see what questions need to be addressed, what factors need to be considered, and what variables matter most to prospective students – as opposed to what variables educational institutions *perceive* are of greatest value to prospective students. The factors these two scholars illuminate should be exactly the factors that online resources address. To the extent that online resource materials and portals/websites do not address the above, then it must be said that they fail as useful implements for inbound college students.

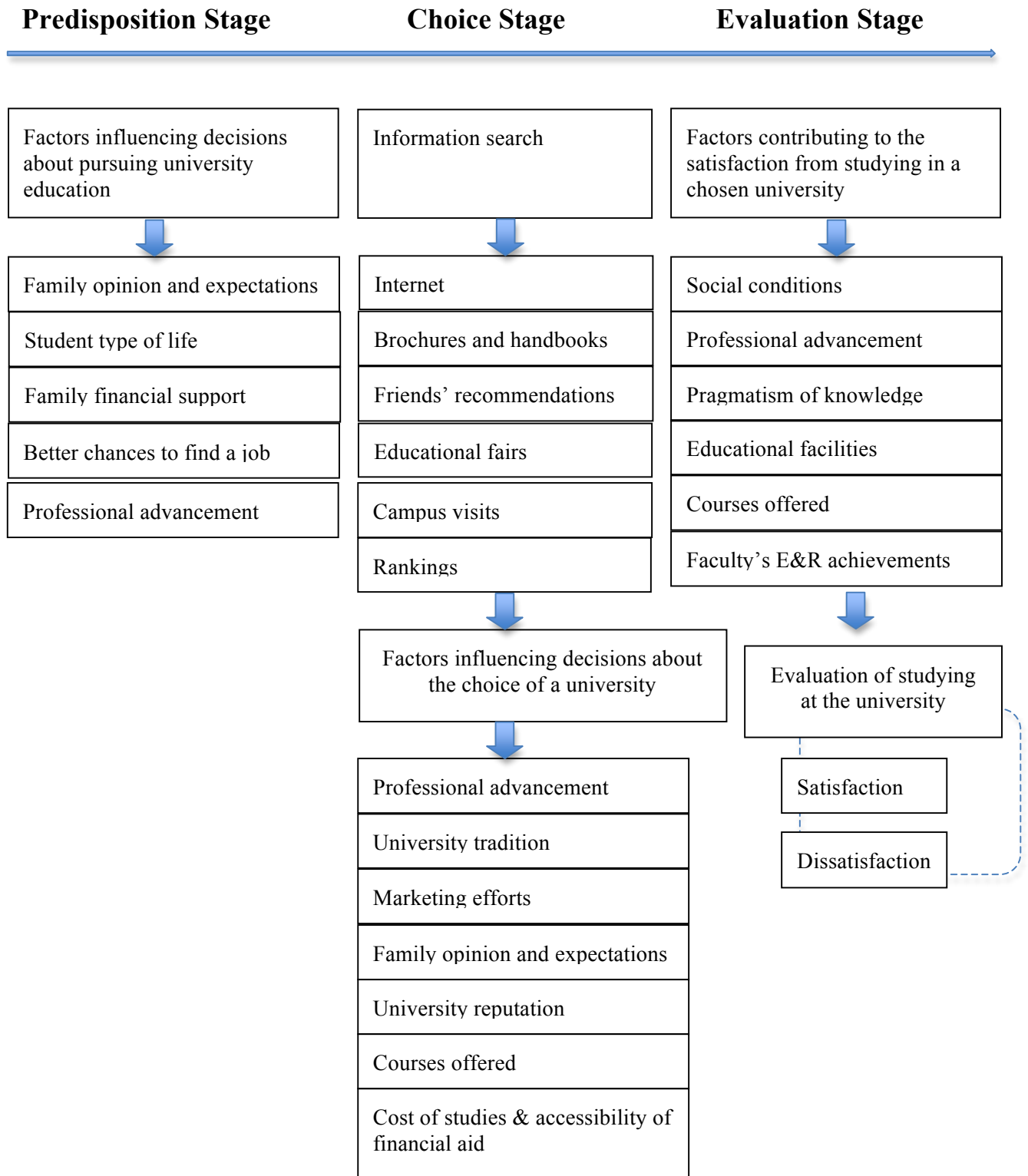Student's decision-making process can be divided into three stages:

**Predisposition Stage**          **Choice Stage**          **Evaluation Stage**

| Factors influencing decisions about pursuing university education | Information search | Factors contributing to the satisfaction from studying in a chosen university |
|---|---|---|

| Family opinion and expectations | Internet | Social conditions |
|---|---|---|
| Student type of life | Brochures and handbooks | Professional advancement |
| Family financial support | Friends' recommendations | Pragmatism of knowledge |
| Better chances to find a job | Educational fairs | Educational facilities |
| Professional advancement | Campus visits | Courses offered |
| | Rankings | Faculty's E&R achievements |

| Factors influencing decisions about the choice of a university | Evaluation of studying at the university |
|---|---|

| Professional advancement | Satisfaction |
|---|---|
| University tradition | Dissatisfaction |
| Marketing efforts | |
| Family opinion and expectations | |
| University reputation | |
| Courses offered | |
| Cost of studies & accessibility of financial aid | |

Figure 2. Fishman (2015), *College Decisions Survey. Illustration by Author.*

# 4 Empirical Context, Research Design, and Methods

## 4.1 Empirical context

The research method underpinning this study is a qualitative study that was originally predicated upon the work of Rachel Fishman (2015) and her extensive survey work examining why students choose certain colleges (what drives them to make the choices they make?). There was also considerable attention paid to the corresponding scholarship of Kimberli Burdett (2013) which looks at the role Internet-based tools play in the college selection process. The ultimate determination was made to proceed with a somewhat revised interview methodology that offered a scaled-down and accessible entry into the sentiments of students, parents, and admissions officers. Be that as it may, additional online and academic sources that comparatively analyze various online college/university portals will also be examined for any insights they might reveal. As will quickly become evident, the empirical context is rather insufficient insofar as far too little attention has been paid to the matter of how online tools and college search platforms shape ultimate student choices. This, in and of itself, provides ample proof that so much more needs to be learned about this subject.

Reviewing the empirical context, both Fishman (2015) and Burdett (2013) offer worthy introductions into the contemporary state of affairs vis-a-vis what prospective students want, what they need, and what factors are most important to them as they strive to make a smart decision for their personal future. Fishman (2015) describes, courtesy a wide-ranging survey that has already been discussed above, a number of factors that prospective college students in contemporary American society deem most vital or salient when ascertaining whether or not to go to college. Specifically, her findings contend that the following factors are most likely to prompt students to attend college (in descending order of importance): *1) To improve personal employment opportunities; 2) to make more money; 3) to get a good job; 4) to learn about a favorite topic area or interest; 5) to improve personal self-confidence; 6) to learn more about the world; 7) to make a better life for my children; 8) to set an example for my children; 9) to switch jobs or change careers; 10) to meet new people; and 11) because family (parents) wanted me to go* (Fishman, 2015, p.4.). The empirical context provided by Fishman's recent study suggests that students are most motivated by financial and employment opportunities, and objectives such as personal

growth subsequently follow in subordinate fashion. The ideal online resource will address each of these objectives in order of their popularity and importance, and delineate – to the fullest extent possible – how each college satisfies these imperatives.

The empirical context is graphically illustrated through Fishman's efforts, and she does a very good job of capturing contemporary sentiments among prospective college students vis-a-vis why they choose specific colleges over and above others; this kind of specificity actually appears to be superior to that offered by Chapman (1986) in his path-breaking work of some 30 years earlier. To get started, Fishman presents the following factors (in descending order of importance) as the primary factors in why students select a particular institution ahead of other ones; *1) the programs that are offered; 2) the availability of financial aid; 3) how much the institution costs; 4) how many graduates find full-time employment in their field of choice within six months; 5) the percentage of students who graduate; 6) the average starting salaries for graduates; 7) student loan default rates; 8) recommendations of high school guidance counselors; 9) recommendations from friends and family members; 10) the student clubs, groups and organizations present on campus; 11) having friends who will attend or who do attend; and 12) the athletics or sports teams present on campus* (Fishman, 2015, p.6). It is a mild surprise, but not a large one, that the advice of school academic counselors is given a fairly prominent place among the factors that guide students toward one college and not others. Once again, empirical data suggests that the contemporary sensibilities of prospective students lean heavily towards Internet sites or portals that offer thorough information about school program offerings, availability of aid, and costs; there is also a sizable (and perfectly understandable) present-day concern about the ability of a school's program (or programs) to place students in full-time jobs within their chosen areas of endeavor.

Fishman (2015) offers an exemplary overview of what students want in the contemporary age, and what determinants steer them down one path or another. Burdett (2013), writing two years earlier, explores the direct empirical linkage between student college choices and the use of the Internet to make final decisions. She finds that CollegeBoard.com was (as of 2013) enormously popular with students, and even overwhelmingly so; it seems as though other college search websites were far less popular among prospective college students (Burdett, 2013. p.147). She also informs us that the empirical data in her possession points toward contemporary students using only a few college selection sites to make their decisions; in fact, in comparing two large surveys from 2009 and 2011, Burdett (2013) reveals that the number of different sites used by prospective

college students actually declined in that brief two-year interim (p.147). Her findings directly contradict the findings of Poock (2006) insofar as she argues that student have not been using the Internet with increasing frequency over the past decade to find out information about college institutions (Burdett, 2013, p.147). The key take-away is two-fold: 1) Chapman (1986) may well have been overly optimistic when stating that students were relatively flexible consumers who could track down different sources of information to make an informed choice; and 2) students in the contemporary age have not shown themselves particularly flexible in relation to using the Internet in a diverse and varied fashion to find out as much diverse information as necessary to fully appreciate the merits of one institution relative to another.

Another consequential finding penned by Burdett (2013) is that students found campus tours and traditional sources of information (such as counselors) more important than Internet-based tools (p.149). Indeed, Burdett (2013) remarks that the influence of conventional campus tours increased slightly between 2009 and 2011 (p.149). The importance and role of guidance counselors has been described already, so it seems unnecessary to go into a lengthy review here. But, suffice it to say, the fact that so many students prefer alternative tools to the Internet when seeking information would lead one to the finding that maybe many online sources – including CollegeBoard.com – do not engender complete trust among young people. At some instinctual level, prospective students still want to talk to someone else about this most important decision of their young lives. If online websites can become more interactive and customizable, then maybe this predilection can be reduced. However, students still place a great deal of weight upon meeting with people, or seeing the campus in-person, rather than trusting even a comprehensive and well-ordered web portal.

Finally, before bringing to a close Burdett's contribution to the empirical context, it must be noted briefly that her survey results find that contemporary students take many different pathways to their final decision; the path to arriving at what college is right for them seems to be a path that is largely unique to the person doing the search (Burdett, 2013, p.152). Not a great deal needs to be added in this instance, but Burdett's 2013 research findings do illuminate that online resource tools, if they want to be pertinent and salient to candidate students, have to offer a strong degree of interactivity, customizability, and even scalability. These become staple criteria when assessing the merits of any online site or portal ostensibly devoted to helping students make wise choices.

Other scholarly inputs provide further instances of the kind of information that online platforms must provide students if they are to be wholly effective. Internet platforms somewhat facilitate the number of applications that students can submit, but they also serve to reinforce in the minds of young people (and even mature students) the need to apply a large number of institutions. In part because of this advice, Hoover (2008) reports, the number of student applications to extremely competitive Ivy League institutions has actually climbed in recent years. In that sense, it seems one clear empirical function of online websites and platforms has been to increase the alertness of students to the fact that it is better to produce many applications as opposed to just a few.

The empirical context increasingly shows that the Internet collectively – and web-based platforms individually or as a peculiar sub-set– have both emerged as places to which students are turning when pursuing information about institutions and what they offer. Poock (2006) makes this point most emphatically, intimating that students find the Internet to be a place in which they can pursue vital information at their leisure, In an interesting twist, Martin (2006) reaffirms the growing importance of the Internet in the information-gathering process, but highlights that research consistently reveals university web sites to be the primary source of information for students who are choosing a college. This might seem to undermine the primacy and even function of third-party online web portals dedicated to providing information about institutions, but it can be argued that portals or platforms that provide extensive links to institutional webpages that contain pertinent information for students – or that include such information in an accessible manner on their own pages – could very easily mitigate some of the usefulness of school websites, while strengthening or bolstering their own. Even when treated without generosity, the empirical context does point to online platforms and websites as being very important and elemental parts of the choice and selection process that all aspiring students must undergo.

## 4.2 Research design

Because of the expansive nature of this topic, it is integral to focus attention upon specific programs, and specific regions. The final paper will largely be committed to exploring the relative strengths and weaknesses of three competing and complementary online resource portals: CollegeBoard.com, College Navigator, and College Insight. The students who will be reviewed are freshman students in engineering programs at University of Michigan in the Mid-West United States. Because there are so many college programs, it

has been determined that only students at the first-year engineering program will be considered in the final survey. Thus, the primary research encompasses a review of engineering students who are freshmen at the University of Michigan and applied a year ago and were successfully selected. A total of 12 students, drawn from the first year students, have been selected to be a part of the interviews. All of the students in question, as per preliminary screening, have used the above-mentioned online portals at one time or another to make their final college selections. Thus, the interviews will assess what factors drove them to choose one school over another, and to what extent the online tools above actually aided them in their efforts. Additional interviews have been arranged with five (5) parents, and with two (2) admission officers. Some of the students shared their experience on how useful they found specific portals, and to what extent these portals failed them in their research and search efforts. As noted above, this is a qualitative research design originally inspired by the work of Fishman (2015). However, the scale of Fishman's 2015 study could not be replicated with the time and resources presently available. A set of 19 interviews, on the other hand, allowed for a genuinely accessible and engaging assessment of the online portals described above.

## 4.3 Validity and reliability

**Construct Validity**. A study of this sort – relying heavily as it does upon semi-structured interviews - must necessarily be one that embraces construct validity, internal validity, external validity, and reliability (Yin, 2014; Bryman, 2014). Each of these concepts will be briefly discussed in turn, leading to a final discussion of how each of them is manifested within the interview methodology.

To commence, construct validity entails identifying an operational set of measures so that theoretical propositions can be established that are readily comprehensible and applicable. As much as anything, this means ensuring that the content measures the construct known as "usefulness" in this context. Usefulness is defined, for the purposes of this study, as producing actionable information that permits students to select the institution that is most likely to advance their educational aims, is most likely to do the foregoing without costing them an excessive amount of money, and that will offer them auxiliary support (tutoring and professional academic counseling) and a social envelope that is fun, appealing, and permits them to make new friends and realize new networking opportunities. The concept of "function" is also illuminated through the operational set of measures. For our purposes,

"function" is intended to mean the activity or purpose to which a website or online portal is explicitly dedicated. Suffice it to say, some sites will serve their avowed functions more effectively than will others. In any case, it seems most pertinent at this time to look more expansively at the operational set of measures devised for this study.

The operational set of measures, for its part, are the following: *1) information about the course/subject in question; 2) information about the financial cost; 3) information about available bursaries, scholarships, and grants; 4) information about support services for students (academic and psychological); 5) information about matriculation or graduation outcomes for students taking the course at the institution; 6) and information about career progression after graduation or matriculation.* The satisfaction of these measures essentially determines the "usefulness" of a portal or website as we understand the construct of usefulness as it is presented above. The content, the test items in question (embodied by the interview questions), clearly measures the construct of greatest interest to us – the construct of "usefulness" and which online sites possess it, and which ones do not.

The theoretical foundation of any credible research methodology must also be sound and substantive. Chapman (1986) furnished us, more than 30 years ago, with a Model of College Search and Choice Behaviour that has endured to the present. His theory, as with most any theory in this realm, is not predicated upon empirical analysis of aspiring college students (it is not evident that any such empirical analysis or wide-ranging study had ever been conducted prior to 1986), but it is staunchly predicated upon choice and selection components (Chapman 1986) that are intuitive, self-evident, present the student as seeking information from a wide array of sources (and from the best ones available), and that order the entire decisional process in a very incremental and sequential manner. It stands even further because Chapman's 1986 theoretical proposition is still indirectly championed by Fishman (2015) and Burdett (2013) as they define why students seek out a tertiary education, and why they select the colleges they do. The proposition set forth by Chapman (1986) continues to be the most precise and explicit theoretical delineation of how students go about making their educational choices that has yet been set forth.

The dimensions that fall under investigation within the study warrant special examination, too. The interview questions examine a number of expository dimensions that correlate neatly with the construct of usefulness: *1) source information about cost; 2) source information about future prospects; 3) source information about student support; 4) source information about scholarships and bursaries and grants; and 5) information about the course in question* (of most import, its relationship to other programs or courses offered by

other institutions). These dimensions all merge appropriately with the construct of "usefulness" so defined above. Likewise, the construct of "function", though of lesser consequence than the construct of "usefulness", is also illustrated and brought into sharp relief by the dimensions advanced – most of all by virtue of the fact that the satisfaction (or non-satisfaction) of the dimensions outlined above greatly determines to what extent the discussed portals or online sites are doing the work demanded of them. Through an exposition of the interview findings, some critical insights can be gleaned about the correlation between website and portal usefulness and functional performance and how they meet the peculiar informational needs of young students and their families.

There is convergent validity in this interview process because measures affecting to closely-related constructs – such as happiness at school, satisfaction with college choice, and optimism for the future – are all logically and intuitively related to the measures pertaining to satisfaction with college selection and choice. And these measures, suffice it to say, are closely connected to the quality of information (the usefulness) of the online tools that students employ to make the right selections about their future. And the interviews possess discriminant validity insofar as items that have no bearing on the usefulness of a website or portal – such as the attractiveness of a site in terms of its color scheme, or the presentation of extensive information that has no material linkage to the pertinent factors that students must consider when making a selection – will clearly not reveal the actual functionality or usefulness of an online information source. Finally, the interviews do contain a measure of predictive value inasmuch as they illustrate the extent to which poor (and good) college choices are based upon access to the right kind of information. And they also reveal quite reliably the likelihood that students will commend specific online portals or websites to others who have difficult choices to make. In the end, the construct validity of the study should pass beyond question.

**Internal Validity.** Internal validity fundamentally refers to the extent to which a study or experiment avoids conflating or confounding multiple independent variables as the causal agents in a particular phenomenon. Regression analysis studies are possibly more effective at ensuring internal validity, chiefly because of the mathematical precision involved, but comprehensive qualitative studies can also be very good (Blankenship, 2010). However, they are only very good if they recognize that it is critical that interviews are conducted in a secure and comfortable area wherein respondents will be most forthcoming (if they are less than forthcoming, this can compromise the internal validity of the subject inasmuch as people may feel the need to lie or dissemble, or may simply elect to not provide full answers to

searching questions); it is important that the interviews be bereft of data collector bias (in other words, the interviewer organizes or catalogs interview responses in a fashion that subconsciously privileges outcomes to which the interviewer has a predisposition); it is imperative the subjects so interviewed are as representative as possible of the larger population (in other words, this entails a preoccupation with ensuring that subjective characteristics of the respondents are acknowledged and controlled as much as feasible); and that longitudinal qualitative studies can fall prey to the inevitable maturation of the respondents – a maturational process which might mean that simple human growth explains a change in perspective or cognitive performance, instead of some other defined independent variable (Blankenship 2010, pp.135-137).

In the matter of this study, these threats to internal validity are addressed in various ways. For one thing, the interviews are all carried out in locations of the interview subject's own choosing. Secondly, the responses to all questions are color-coded extensively so that there is very little room for specific responses to be cataloged or recorded in a fashion that is consistent with the researcher's own bias. Thirdly, the operational items used to measure the functionality and usefulness of the various studies rest heavily for their origination upon Chapman's original 1986 theory and the areas of concern he felt (after reviewing the existing literature) were most pressing to students when assessing where they wished to pursue their college studies. All of the items, which weigh and measure the constructs of usefulness and functionality, are explicitly linked to these constructs via the specific questions set forth in the interviews. As another note, this is not a longitudinal study, so that possible concern does not arise. However, there is some measure of concern because of the fact that the population in question is small. While randomly selected, and while minority candidates and their parents do appear in the study, it must be acknowledged that the subject population is not overly generalizable and cannot be described as emphatically representative. Nonetheless, triangulation (Yin, 2014) achieved via reviewing the work of Burdett (2013) and even Fishman (2015), does provide an empirical context, which reaffirms the general findings of the interviews.

**External Validity**. External validity refers to the generalizability of research findings, and the extent to which specific outside factors might shape or distort the aforementioned generalizability to other populations (Pearl & Bareinboim, 2014). It seems that two general kinds or types of generalizability are most evident: 1) the extent to which one can generalize a situation created or constructed by the experimenter to real-life situations; and 2) the extent to which one can generalize from the people who took part in the experiment to the general

population (Aronson et al., 2007; Bryman, 2012). The interview process at the heart of this paper is purposely accessible and simple enough to reproduce. As it is not an empirical or quantitative study featuring regression analysis and other such tools, it is quite easy for other researchers to replicate the study to the fullest extent possible. Conversely, it is freely admitted that the people who participate in the interview process are not necessarily representative of the general population. Though selected at random, they are not a large group. However, the study should serve as a vital starting point to a much fuller and larger exploration into how effectively online services guide and steer students in the course of pursuing the right college for them and for their particular future.

As a further point, Yin (2014) writes that external validity is partly advanced in qualitative studies when appropriate theoretical propositions are identified and applied to the crafting of discrete and well-rendered questions or research instruments. The 1986 theory of Randall G, Chapman stands out as perhaps the only theory present which comprehensively (and lucidly) highlights why and how students make the college choices and selections they do. This study, because of the considerable effort undertaken to accommodate interviewees and to produce an interview arrangement that is comprehensive, detailed, logical, and sequential, should offer a vital set of learning outcomes that will extend the findings of Burdett (2013) with regard to the role of the Internet in assisting students in making college-selection choices and determinations.

**Reliability**. In simplest terms, reliability merely refers to consistency and repeatability of the research methods or efforts undertaken during the course of a particular study (Trochim, 2006). In other words, it may be inferred that a reliable test or experiment produces similar outcomes under consistent or similar conditions, time and again (Trochim, 2006, para.1). This study sets forth the procedures executed to complete the interviews and to appropriately bring the study to a close. The methods section presents the interview guide for each of the groups of participants – students, parents, and admissions officers. The data collection, analytical strategies (in this instance, qualitative coding of persistent or recurrent words, phrases and terms), and the rationale for pursuing the particular course of action, are all set in detail.

## 4.4 Interviews

This section outlines interview guides for the student respondents, for the parents responding to the interviews, and for the university admissions officers who must oversee the admissions of prospective candidate students. In total, 19 interviews have been carried out, and it may be hypothesized, in light of the findings of Fishman (2015) and Burdett (2013), that the same general concerns and issues delineated by these scholars guided the responses of the interview subjects (especially the students) as it pertains to the usefulness and efficacy of various online portals. A more extensive exposition of the study's methodology must now be set out.

The topic began as an effort to identify and understand the function and usefulness of online platforms in aiding students during the critical college selection phase. Over time, this focus became increasingly narrowed, with attention being paid to comparing multiple platforms that offer online information and guidance to students striving to pick the right college or university for themselves and for their future. Three online platforms (commonly referred to in the context of this paper as portals) were selected, chiefly because of their ubiquity and popularity: 1) College Navigator; 2) College Insight; and 3) CollegeBoard.com. The next order of business was to identify a specific group, area, and even example so as to make a large and seemingly unwieldy subject area more manageable. It was determined that the appropriate group for this research would be drawn from the freshman students within The College of Engineering at University of Michigan. This College was ranked as a number one college by Forbs in 2017[1].

There was slight complication in accessing students and parents due to distance and time differences. The Dean of the Engeneering Program of the University of Michigan helped assign a research assistant to reach freshman students in engineering programs for the interviews, since their exprerience in college search process was recent and relevant. With the help of research assistant I (Author) indicated that I would be happy to interview freshmen students in engineering programs about online platforms for college selection, and that I was most interested in the function of such online platforms and in their usefulness to students. I left my contact information with the reseach assistant in each instance, and told the students I looked forward to hearing from them if they wished to consent to an interview. Originally, approximately 18 students expressed initial interest in the prospect of a sit-down interview

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[1] https://www.engin.umich.edu/about/ann-arbor-campus/

with the research assistant. Of course, this number did begin to decline dramatically as many students soon enough expressed disinterest with the project, or complained about finding the time to meet with the research assistant to discuss the project. Nonetheless, a sampling of students did eventually agree to participate to discuss the function (and functionality) and usefulness of prominent online platforms.

To expand on the last paragraph, a total of 19 individuals – 12 students drawn from freshman group, 5 parents who agreed to participate in the study, and 2 admissions officers at the University of Michigan that received at least one application from at least one of the students noted above – were selected. The students were selected randomly, and their parents were subsequently contacted to see if they wished to participate; five of the parents ultimately did so.

Once the interviews were secured, it was critical to establish times and places for the researcher to meet with individuals and discuss the triad of online platforms, the function they serve, the usefulness of each and recommendation on how the ultimate platform shoul be. The researcher apprehended that all interview subjects would feel much more comfortable talking at a time and place of their choosing and convenience, and so it was arranged that the research assistant met with the parents at their residences, and the admissions officers at the institution (two meeting in common areas of their institution during the day) while this researcher conducted interviews with the students over Skype (after giving express notification to their families and teachers). Notices of consent were sent to all of the interview subjects who agreed to participate, and all agreed to the terms. The notice of consent also contained a written guarantee from the researcher that their personal information would be anonymized. This, incidentally, leads directly to the next item to be discussed.

One of the challenges that quickly manifested itself was that many students were concerned about revealing too much of their personal information to a third party about whom they knew nothing. Although this was not stated by many of the students who originally declined to participate after expressing some interest, it is the suspicion of this researcher that privacy and security concerns drove a great many away from their original intention of being a part of the interview process. To ease any fears, the researcher instructed research assistant to share institutional contact information with the interview subjects – most especially the consenting parents. The admissions officers who agreed to participate similarly requested that their names not be used. The reason for this ultimately revolved mostly around a concern about personal privacy. A second concern was that the respondents wanted to have the security of speaking freely about the subject of student college choice and selection, and

some felt that allowing their name to be mentioned might present a constraint in terms of their willingness to speak liberally – most essentially because any comments deemed as unflattering or controversial could potentially be traced back to them.

All 19 of the interviews were carried out in an individual capacity over a span of 26 days, and all were tape-recorded and then transcribed. It is important to note that, while none of the subjects received a preliminary copy of the interview guide (or any other such schedule), they did receive in advance of each interview a brief "refresher" on some of the broad themes and topics to be discussed. While these themes and topics had been discussed earlier to all of the interview subjects, it was felt imperative to discuss the issues still further to ensure that none of the interview subjects felt cornered or uncomfortable with the substance or tenor of the interview questions.

There were three different interview guides created for the student respondents, for the parents responding to the interviews, and for admission officers. For information regarding interview questions and structure refer to Appendix part of this work.

The arrangement of the interviews, once successfully completed, initiated a venture to find out how to identify prevalent or recurrent themes, sentiments, and perceptions among the students vis-a-vis various online portals and/or websites. All interviews were analyzed individualy using open coding method (Hatch, 2002; Corbin & Strauss, 117, 1990). Specific terms that were definitionally and conceptually the same (or very nearly the same) were coded in ways that distinguished them from other phrases, words, or descriptive adjectives. Negative terms that denoted disappointment or frustration with a specific portal or site (or with the choice and selection process) were highlighted with dark, bold colors. More positive terms, which denoted satisfaction or even delight with the functionality and usefulness of a particular site (particularly in relationship to its competitors), were highlighted with softer, gentler tones.

# 5. Results

The results of our interview sessions clearly point to the importance of online resources, and to the helpfulness of these resources if they are properly maintained and seek to advantage students in an authentic manner. For one thing, echoing the sentiments of Fishman (2015), all 12 of the students indicated a desire to attend university or college because of their avowed desire to make money upon graduation; finding a good job was enormously important to all of them, and a website portal that could allow them to achieve this was deemed most vital of all. One of the students shared his reasons to attend university:

> *I always dreamed of ensuring prosperous life to my parents in future. Because they did everything possible and impossible to give my 2 siblings and me a good education, clothing and food. They struggled working in two or three jobs at the same time. I always dreamed of getting enrolled to the University with high reputation in order to get a job easily and have a good salary.*

Seven of the students maintained that CollegeBoard.com was the best of the three online resources studied for providing information about post-graduation success rates and salaries for former students who had enrolled in the engineering program at various institutions. Three of the students who consented to be interviewed held that College Insight was the best in this regard. And the final two took the position that College Navigator was actually the best for providing post-graduation data to aspiring students about the salaries and employment prospects. Fishman (2015) underscored in her work that personal employment opportunities, the desire to make more money, and the desire to get a good job were – in that order – the most important considerations for students enrolling in institutions of tertiary learning. Another student shared his feelings and challenges in application process

> *I searched a lot, trying to find best university that fits my parents expectations and mine. I looked through the websites of the Universities but it was time consuming to find right information. College board helped me to get information about several institutions not leaving the website. I chose 4 universities to apply. I could have applied to more universities but the cost of registration limited me and I didn't want to risk.*

The findings of this study reaffirm that, and leave one with the distinct sense that a central function of any online resource is to provide data-sets that convince students – and their families – that enrolling in a particular program, at a particular school, will lead to remuneration and to a healthy return on investment in the future. The more detailed information that an online site can provide, the greater its usefulness becomes to students and to their families. Of the students interviewed, CollegeBoard.com appears to be the best of the three portals for addressing concerns they have involving the aforementioned objectives.

One function of the sites that was not discussed was the capacity to provide information about whether or not the institutions could adequately satiate the interests of students in a favorite topic or area of interest. Fishman (2015) describes some college aspirants as being drawn to college learning because of their desire to learn more about a favorite topic area or domain of intellectual interest. But it is hard for any online resource (short of offering a comprehensive syllabus of each and every course contained within a program) to provide sufficient proof that one institution will better satisfy the curiosity of a student than another. Furthermore, it is hard to see how such can be an appropriate function for any online resource inasmuch as college or university are investments – investments that cost a fairly considerable amount of money – and the substantive pressures created by this investment seem to greatly outweigh considerations about whether or not a program satiates one's interest in a topic area or research area. Interestingly, none of the 12 student interviewees indicated any interest in whether or not the program would gratify their desire to learn more about a subject or topic. As for the parents, all eight of them were quite passionate in stating that they sought, above all else, a better life for their children. One of the respondents from parents group shared his opinion:

*As every respecting parent I wish to give quality higher education to my son. He is still young and I couldn't leave all responsibility on his shoulder. I helped him to choose best university for him. Investing on education never give negative results. It is life time skill what makes education priceless.*

Thus, it is manifest that students and parents appear motivated by prosaic considerations when making a determination about where they want to go – and why they want to go there. To echo what Fishman (2015) recently underscored, students are driven by financial objectives and by employment opportunities; matters such as personal growth and intellectual curiosity are of far lesser import to them. It therefore follows, since curiosity may

be endless, but family resources are not, that a strong portal will offer considerable information about what students can expect to earn upon matriculation from an engineering program at a particular institution. At least among our student respondents, CollegeBoard.com seems the best of the three surveyed in terms of offering a breakdown of how a degree at a particular school will pay off for students in the years ahead. Here are some soughts of another respondent:

*The websites of many universities were basic and lots of non-relevant information. I used even social websites to get more information, but to be honest social media gives only feeling rather then sufficient information. My friends recommended using Collegeboard.com. It helped me a lot in terms of collection of information. I like it because it was not crowded. Collegeboard gives even information about alumnis of the universities, which helps to project job prospectives.*

In her research, Fishman (2015) made it evident that students attend specific institutions for a few key reasons (in descending order): *1) the programs on offer; 2) the availability of financial aid; 3) how much the institutions cost; 4) how many graduates secure full-time employment within six months of graduation; 5) the percentage of students who graduate; 6) the average starting salaries for new graduates; 7) the student loan default rates; 8) the recommendations of high school guidance counselors; 9) recommendations from family, and from friends; 10) the student clubs, groups and organizations on campus; 11) whether or not the aspiring entrant has friends who attend the institution or will attend; and 12) the sports teams and athletics teams that operate on campus* (Fishman, 2015, p.6). Fishman's 2015 findings do largely echo those of our student interviewees: of the 12 respondents, all 12 indicated that they were prompted to enroll in an institution because of the programs on offer. Furthermore, all 12 indicated that they enrolled (or were presently seeking to enroll) in an institution because of the availability of financial aid. And, not surprisingly, all 12 affirmatively answered when asked if the cost of the institution played any role in their ultimate decision to attend one institution instead of another. Here is a real example of the above statement:

*When I searched for the university the second biggest challenge was tuition fee. I didn't have enough funds because I am from law income family for this reason I cannot effort expensive college. I was granted students' loan and hopefully I will have a good job to pay the loan back.*

Departing slightly from Fishman (2015), all 12 of the students also insisted that the starting salary of new graduates was more important than the percentage of students who graduate the program; in the Fishman (2015) survey, the two are reversed in order of importance to aspiring college applicants. In any event, the uniformity of these answers, and the assertive, confident manner in which they were delivered, suggest that online resources which seek to reach out to students are well-advised to emphasize data-sets which provide details on financial issues that invariably conform around the choice of one institution or another.

Moving forward, some other possible reasons were, as one might infer from reviewing Fishman (2015), of lesser importance to students trying to make the right decision. Particularly, the fact an institution has specific sports teams on campus was not viewed as important by any of the 12 students in the interviews; the parents who consented to be interviewed also expressed no interest whatsoever in whether or not an institution had a particular sports team on campus. On the other end of the spectrum, and this ties in with an excerpt from the paragraph above, 8 of the students indicated a specific interest in what percentage of students graduated from the engineering program at a particular institution. A further glance reveals that 7 of the 12 students expressed that the recommendations of high school guidance counselors was important to them; the same 7 also indicated that the recommendations of their immediate family and loved ones was pivotal in their choice to join one institution over and above another. This respondent is an example of students who have full influence of their parents:

*I always knew I will study at University of Michigan because my dad studied there and my brother is studying his third year at this University. It 's a tradition of our family so to speak.*

Surprisingly, only 6 of the 12 interviewees disclosed that student clubs and groups available on campus were important in their decision-making – even though this can rightly be construed as evidence of the quality of the auxiliary programs and services an institution

offers to its student body. Only 4 of the student interview subjects considered whether or not friends were enrolling in the engineering program at the institution of their choice to be important. One student pointed importance of friends' recommendations:

*My high school friends selected university according to rankings. They were checking rankings of all institutions and advice me to choose high ranked institution. But my other family friend advised this university because of research opportunities and highly qualified academics. To me the qualified academics are more important than high rankings.*

Student loan default rates, ranked number 7 among Fishman's list of a dozen factors that prompt people to enroll in various institutions (Fishman, 2015), barely registered with the young people interviewed for the study at hand: only 4 of the 12 students expressed the notion that student loan default rates were important in their calculations of which institutions they should attend. Whether or not these students are simply orientated differently than the bulk of respondents in Fishman's 2015 survey, or whether they will start giving more consideration to the repayment of student loans at a later date, it is fascinating how little regard they seem to have vis-a-vis the significance of student loan defaults and what such might mean to their future financial health. In light of the student's own cheery optimism for their futures, perhaps they are not given to considering the consequences of student loan defaults because of their confidence that they have made (or will shortly make) the right decision about which institution to attend. In any case, the student interviewees did indicate that, once again, they found CollegeBoard.com to be the best of the three online informational portals for providing information about student graduation rates and about support services (and broader campus services) for students. 7 out of 12 made the above claim, while 3 felt that College Navigator was better in this regard, and 2 felt that College Insight was better. None of the sites, however, was described as "perfect", and none of them received a resounding vote of confidence from the students interviewed.

Proceeding further, something must be noted about the weight granted to the advice of school academic counselors. Out of 12 students, only 4 actually indicated that school academic counselors were critical to their final decision about where to attend. 4 others suggested that school academic counselors played some role, but only in reaffirming what the students already suspected. The final 4 students, incidentally, suggested that academic counselors played no consequential or tangible role in their final choices at all. Among the

parents, 2 parents did express the sentiment that school academic counselors were important to the final college selection determination; they indicated, of especial note, that these parents appeared to be much more involved in their children's choices than other parents. The sentiment one thus has is that involved parents might well be much more positively predisposed to insisting that their children contact third parties for advice than parents who largely leave the matter to their children. In any event, 2 of the 3 remaining parents indicated that school academic counselors were somewhat important, but those counselors mostly offered insights into additional available resources, suggested other people to contact, and liaised between the families and the educational institutions. While appreciative, these parents did not indicate that the counselors were determining factors in the final college choice selection of their children. This contradicts, to some extent, the findings of Burdett (2013), and also the much earlier findings of Chapman (1986). While there is an undeniable generational component to students today employing the Internet when such technology was not at all available in the 1980s, it is counter-intuitive that the 12 students interviewed for this study should have far less interest in the services of academic counselors than the large corpus of students examined by Burdett (2013), and also by Fishman (2015). It seems likely, therefore, that the small group of students examined for this study constitutes somewhat of an outlier, and that school academic counselors do retain considerable gravitas and relevance – even if they must now share center stage with online tools that generally make the college selection process easier. As a final note, 2 university admissions officers indicated that they liaised frequently with high school academic counselors when it concerned particular student candidates, and both did express that they found their interactions with school academic counselors to be quite fruitful – especially when it came to learning more about the students in question.

To elaborate upon a generational theme sounded earlier in this paper, more and more students are using the Internet as their predominant tool for gaining valuable information from which they can make critical life decisions about where they wish to be educated. All 12 of the students, and all 5 of the parents who consented to be interviewed, made it clear that the Internet was a predominant source of information and insight vis-a-vis choosing the post-secondary institution most agreeable to their needs. In that sense, the Internet portals and websites of today essentially act as the guidance counselors of thirty years ago. The human element has therefore been diminished in a relative sense, but it does not seem to be of much concern to the young people queried – or their families.

Burdett (2013) wrote three years ago that, besides the strong role that the Internet now plays in student decision-making, there is a distinct hierarchy among the various portals and sites then widely available. Chiefly, Burdett (2013) remarks that Collegeboard.com was the most popular site with students in 2013, and that the gap between it and other web portals and sites was considerable. In this study, out of the 12 students, all of them indicated that they used Collegeboard.com to accrue information. At the same time, though, 11 also indicated that they used College Navigator as an alternative for gaining information. College Insight, incidentally, brought up the rear, with only 5 of the student respondents indicating that they used this latter site. Collegeboard.com thus offers, for many students, a battery of services and informational data-sets that set it apart even from its nearest competitors. When pressed on why Collegeboard.com was (and is) more desirable than the others, all 12 of the students indicated that it contained more information about financial aid; it offered a wider selection of post-secondary institutions; and it offered more specific information into college facilities for students (not merely information about social activities and clubs). The other two online sites – College Navigator, and College Insight, in that order – were seen as offering comparatively less. Right away, it is clear that a top portal will offer a holistic view of the college experience, and will give students some insight into what resources they can access to make their college tenure more pleasurable and rewarding. Even if Burdett (2013) is correct in noting that students over the past generation have not used the Internet more than they were in the early 2000s – likely a case of a kind of equilibrium of use being achieved – they are certainly using the Internet in a robust manner with clear aims in mind. One of the students experienced following:

> *I visited many campuses because it's important for me to feel a real environment. Some of the campuses didn't meet my expectation cause they were grey and old as from outside and inside. But finally I found my university where I fit in. It is always good to see the product in real, only this way you feel if it belongs to you or vise versa.*

It seems an indubitable fact that students are now using online sites as a tool for researching their post-secondary school. But the arrival of the Internet has not necessarily removed the need for more conventional and traditional tools. For example, 9 of the 12 students indicated that they used campus tours as a means of assessing whether or not a school was best for them. The remaining 3 student respondents indicated that they took part

in interactive virtual campus tours; in the regard, it may be submitted that the old and the new were commingled to productive effect. The reality that campus tours have not been completely removed as a useful implement for college candidates is a good illustration of the fact that, however much the new online tools are assuming the forefront of the college selection process, older aids are still useful. It may also be an indication that, however much data is contained on web portals and sites, there is still something authentic and gratifying about visiting a campus in-person. One other point to note: 1 of the student respondents who did participate in an interactive online campus tour, noted that none of the three major websites described in this study offer such services; they can ostensibly only be found by accessing the homepage of the school in question. It might be an effective selling-point in the future for any of these portals – or other sites vying for market space – to see if they can institute interactive and customizable virtual tours as a means of accommodating the peculiar needs of different students seeking specific answers.

Continuing with a review of the findings of the interviews, 12 students were asked to comment on what they specifically seek in any online platform or site. The function and effectiveness of a site, 10 of the 12 maintained, should revolve around its customizability; in short, if the site cannot offer students the specific answers they seek, then the individual student will be compelled to look elsewhere. 8 of the 12 interview respondents also commented that interactivity was hugely important. For the purposes of clarity, all of them defined interactivity as being forums or online search tools that allow students to ask questions and receive answers in real-time (or at least promptly). 6 of the 8 also remarked that interactivity entails some kind of virtual reality tour or even an online counselor (automated, of course) that provides answers to specific queries – and that can search for extensive bits of information if the students enter a keyword search. Of the three main sites described in this paper, CollegeBoard.com was described as being the most intuitively well organized, while also having functioning links that connected students to online representatives of various schools. However, there does not appear to be any sort of online counselor that students can interact with if they have particular questions they wish asked. This could certainly be an innovation that might bolster the function and utility of online websites moving forward. In the end, the conclusion by Burdett (2013) that students will use a myriad of ways and tools to learn more about post-secondary institutions does seem to hold true. If online resources are to wholly supplant other conventional assistive tools, then they will need to become far more interactive, customizable, and scalable platforms.

The student interviewees disclosed to this researcher that the one great benefit of online Internet platforms is that they do facilitate multiple applications in a way that was not hitherto possible. Especially, all of the 12 student interviewees reported that online resources are great for expediting the application process because they make it easier to access information. None of three websites described in this dissertation, however, permit students to make applications directly from the site to the institution of their choice. If an arrangement can be achieved between these sites and post-secondary institutions, it is possible that the next great innovation for third-party online platforms/sites is for them to become aggregators and distributors of student applications to various schools. There is a revenue component to any such innovation, of course, and it is not clear if schools are prepared to see third-party sites make quite substantial amounts of money when the schools can monopolize any such revenues for themselves. In any event, the student responses do see to echo the comments by Hoover (2008) that the facility with which applications can be submitted to many institutions in the Internet age has meant that more students are prepared to take this route – even applying, as the case may often be, to highly selective institutions that might not necessarily have a spot available for them (Hoover, 2008).

A final finding to be derived from the interviews is that 6 of the 12 student interviewees, in a rather surprising turn of events, prefer to draw their information about institutions from the third-party websites we have already noted. The remaining 6 express a preference for going directly to the school's website for information about the school, its clubs and off-campus ancillaries. This was not expected, to be quite fair, because the students who expressed support for Collegeboard.com and College Navigator were quite enthusiastic in their positive statements about these sites and seemed to view them as vital to the college selection process. Nonetheless, there seems to be something alluring about reviewing the school website itself, instead of merely relying upon a third-party online resource. Within the limited scope of this paper, one comes away with a belief that, just as not all students are prepared to take their cues from online sites, a sizable number of students still see great utility in accruing information directly from the educational institution itself. It is not easy to see precisely why this might be so, but 2 admissions officers contacted for interviews did acknowledge during the course of our discussions that students feel impelled to reach out to the institutions they like, in part, perhaps, because they want to connect with someone and to receive some kind of assurance (even if that assurance comes from admissions officers) that there are support mechanisms and people available to aid them should they need it.

# 6 Discussion

As mentioned on section 1.3. Research problem and research question, this thesis is a deeper look at the factors that draw students towards different colleges, and away from others. It is also a look at the role and function of various tools – both traditional and online – that apparently aid students, but also can lead them to confusion, misinformed perspectives, and to despair. Further, and most significantly, it is a look at various online resources in the college search process and which of these appears to offer the greatest aid to young students whose life-shaping decisions depend on their integrity and mindfulness. The questions were formulated in the following manner: The first question focuses on why students decide to pursue college in the first place and the factors students consider when deciding to apply to a specific college. The second question takes the discussion one step further by exploring how students choose the college and what tools they use in the process. The third question then analyses the current online college search platforms, but also the advantages and disadvantages of various ones. Finally, the fourth question concludes and points out the ultimate solutions for the college search process.

**What are the factors influencing students' decision to choose a specific college?**

Fishman (2015) offers us is a fundamental analytical framework that considers the factors, which shape student decisions and considerations, and reveals the kinds of questions that online resources must answer if they are to satisfactorily aid students. In that regard, a successful online resource addresses questions on costs, availability of financial aid, academic reputation, average starting salaries upon graduation, and social support systems (please see Fishman 2015, p.5). In conclusion, to analyze online resource materials we must examine and recognize the imperative that the online portal must comprehensively and thoroughly treat the factors of most importance to prospective students.

In the case of the students under examination in this study, all 12 of the respondents indicated that they were prompted to enroll in a school because of the programs available; all 12 also revealed that they sought enrollment at a particular institution (or institutions) because of how available financial aid happened to be. And, not least of all, each and every one of the 12 respondents did acknowledge that the cost of the institution played a sizable role in where they ultimately elected to go for their post-secondary education. Online

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resource sites need to make it very clear to students, as a matter of course, what the costs are, where the financial aid can be found, and what kind of programs are available – and how these tie to such matters as starting salaries upon graduation. The function of online resources is not merely to provide information, but to provide information that allows for a materially positive amelioration in the life circumstances of a student; in other words, going to college is about money – both paying it out at the start, and subsequently earning it later – and no site is doing its job effectively if it fails to underscore how students can alleviate their financial burden, and what programs (at what institutions) are empirically proven to offer the best financial outcomes.

The findings of the study above clearly show that students are not nearly as interested in extraneous matters as they are in determining if their investment – and the investment of their families – will pay off in the form of a better life following graduation. The 12 students contacted for the purposes of the study expressed no interest in whether or not a certain sports team was active on campus. But 8 of the 12 made it clear they were keenly interested in engineering program graduating rates. And all 12 indicated that they were particularly interested in what kind of employment prospects they could expect upon completion of their studies. The appeal of Collegeboard.com is that it contains these data-sets (or, when the site has been revised, provides accessible links) that offer information that can aid the students in ascertaining the issues above. Students therefore clearly need online resources that prioritize their concerns or, maybe even better, rationalize the site in such a way that it is simple to find bits of information that are of interest on an individual level. Real-time interaction with the site would certainly help in this regard, but even having highly customizable searches could be of great value for online resources striving to be wholly useful. School is a substantial investment that incurs a cost for those who enroll: the secret for an online resource is to have the financial data immediately present, up-to-date, and to permit student candidates to manipulate the data as they see fit to forecast or envisage different scenarios or contingencies.

Only half of the students interviewed (6 of 12) disclosed that student clubs and student groups found on campus played a pivotal role in their college selection. That figure is revelatory, but it is not clear if it is because students simply do not care, or they do not yet fully appreciate the extent to which college clubs and groups can help struggling students. Likewise, only 4 of the 12 student interviewees pointed to post-graduation student loan defaults as a critical part of their equation when assessing where to go.

**What tools students use in choosing university? How students choose university? What are traditional and online resources in searching university?**

The declining role of academic counselors in the decisional process, discussed intermittently in previous paragraphs, needs to be revisited here. That is because it shows the profound changes that have unfolded since Chapman (1986) or even since the early and middle 1990s. There is no need to repeat the findings stated above, but the stark fact that both students and their families saw academic counselors – for the most part – as not being of great import to their college choice and selection, is indicative of how these individuals no longer hold a monopoly over knowledge as they did a little more than 30 years ago. As recently as the early, even middle, 1990s, high school academic counselors were the only outside source of information students had (at least in an institutional sense) for determining if a school was a good fit for them. The Internet changed that, democratized knowledge, and now we see that academic guidance counselors have become more liaisons between the post-secondary institutions and students, and less sources of information. This does not mean, of course, that academic counselors – like admissions officers – are unimportant: the persistent role of academic counselors in the search and selection process is undeniable (Burdett, 2013; Fishman, 2015).

Something else about guidance counselors that emerge in this study is that the students interviewed are somewhat different from the mainstream respondents reviewed by Burdett (2013) and by Fishman (2015). Primarily, they seem to be less interested in the services of academic counselors as a whole; this goes against two studies above that do suggest that guidance counselors retain a considerable role in the decision-making of many students. The one explanation for this is that these are highly adept honors students who do not necessarily fit within the general demographic of college applicants. It may also be that the reason why they seem less committed to the proposition that academic counselors are integral to the decision-making process is because the specific functions of the academic counselor in 2018 are quite different than they were 30 years ago: they have become liaisons instead of the adults to whom young people turn when they have questions about institutions. This seems borne out by the fact that the 2 admissions officers consulted for this research study emphasized that they liaised extensively with school academic counselors when trying to gain a greater appreciation and understanding of the students interested in attending their institution. None of the three online resource sites – Collegeboard.com, College Navigator, and College Insight – have invested to integrate services or functions that mimic the

academic counselor function. Thus, while they are popular among the students queried, their utility should be expanded as students demand for more customizable and individualized services.

In any case, the study clearly shows us that the Internet is a valuable tool – though not the only one – and that students are mixed about the role that academic counselors and other people play in the selection process: as a whole, Burdett (2013) suggests that students are not prepared to eschew conventional decisional pathways (campus tours, or consulting with academic counselors) in favor of the Internet; they seemingly prefer, though in diverse ways, to integrate both. There is a human element, a desire to receive information and reassurance in real-time, that perhaps online sites cannot yet offer. As virtual reality tools improve, as automated services and AI become more advanced, it is distinctly possible that Internet sites will offer to students what academic guidance counselors offered to the students of Chapman's era.

**What are the online platforms and analyses of current college search platforms? What are advantages and disadvantages of those platforms?**

As of now, Collegeboard.com appears to be the most favored among three online resource sites because it emphasizes information about financial aid; it also seems to contain information that offers a more holistic view of what students can expect from college life on a particular campus. College Navigator, and College Insight (in that particular order) seem to fall short in these areas. Even if the students comprising the study group do not appear to wholly appreciate the value of student support groups and clubs, they did seem to place a value upon the ability of Collegeboard.com to offer a well-rounded overview of facilities on campus that might meet their needs at some point in the future (these facilities, incidentally, include far more than social clubs or student group associations). The students consulted appear to consider mental health services more important than social clubs, to give one example, and this is indicative of the overriding view that these students see their relationship as a transactional one: they give their money, put in their time, and rewarded upon graduation for doing so. Collegeboard.com appears to do a better job at providing information about sundry campus facilities and services than the other two – depth of detail and the sheer number of institutions described were two predominant factors in this assessment – and it thus comes nearer than the other two to meeting its optimal utility as defined by aspiring

candidates. College Navigator and College Insight, in that order, followed Collegeboard.com in terms of popularity.

At this juncture, the discussion of what has been revealed in the preceding pages illuminates a number of significant truths. One of these is that not all online sources are equal: Collegeboard.com appears to stand apart from the other two as a respected source of knowledge for student candidates, and its paramount value lies in its capacity to provide students with valuable information about matriculation rates, post-school success, and access to information pertaining to financial aid. Like the other two sites discussed in this dissertation, however, there seems to be a general tone of disappointment occasioned by the lack of interactive and customizable features that allow students to work in real-time with an automated system (or perhaps even a real person) to resolve the questions they have about the schools they wish to attend. If third-party online resources wish to maximize their functionality and usefulness, then adding these features – even if they should come at the displeasure of academic institutions featuring websites of their own – should be a primary goal moving into the future.

When comparing the benefits of Collegeboard.com to the other two sites described above, 7 of the 12 students did reveal that they felt Collegeboard.com was better than the other two as far as providing data about student graduation rates and support services for under-graduates. However, when this writer reviewed the site, it was discovered that some of the student loan default information that could be accessed was not up-to-date; it was similarly discovered that addresses for student support services facilities – and even phone numbers – were not operational when using the directed links. There is therefore a paradox between students referencing one website as the best in these areas, and the salient reality that some of the information appears incomplete or inaccurate. It may therefore be presumed – with the understanding that these sites are frequently revised and updated and sometimes dramatically altered – that the interview group really has not spent a lot of time considering the implications of student loan defaults or the importance of student groups as a social and scholastic boon to young people. In that regard, online resources in the college search process should look at educating students on those factors that are empirically established to be most pivotal to a student's success in school – and then upon graduation. None of the websites discussed above seem to make such an educational or pedagogical function a part of their suite of services: they provide information, sometimes quite a lot of it, and that should be enough. Once more, whichever online resource graduates to fulfilling this function, along with its other functions, will achieve predominance.

**What are the ultimate solutions for the college search process?**

Interactivity is a persistent theme in the study findings. Although student counselors must now share space with online information searches (Burdett, 2013; Fishman, 2015), guidance counselors still play a role inasmuch as they presumably act as sounding boards, as knowledgeable counsel, and as people who can liaise between the student and the college or university. High school guidance counselors were described by a majority of the student interviewees as pivotal in the selection process; the same number (and same individuals) made it clear that families and loved ones were also quite important in the decisional process. Students need to hear a human voice, or have some kind of guide that will answer their questions, as they emerge in real-time. Although not discussed directly in the paper, it is arguable that online web resources that offer skilled and experienced professionals who can liaise with students via Skype, or via other online interactive tools, will optimize their functionality and their utility to candidates who are under pressure and who may have a rush of questions as a result. The suspicion of this researcher is that the first online resource – leaving aside three denoted above – which does offer live interaction with experienced professionals who can answer specific questions (perhaps even including former admissions officers), will quickly monopolize the student college search industry.

Additionally, online resources need to be able to know students and what they want and need. Most students want a better life for themselves upon graduation. But what constitutes a better life can vary somewhat depending upon the individual: some students will favor work-life balance, for one thing, while others will favor a flexible work schedule, strong benefits, and strong job security. Still others will be primarily motivated by money. Creating a profile of each student, which mandates a very interactive approach, should be a burning imperative for online sites and portals. Just as student decision-making processes vary greatly, so too will student attitudes and sentiments about what they really want out of life. The ability of an online resource tool to answer this question for students, and to point them towards institutions that have the auxiliary, ancillary and diverse facilities and services needed to make the student's peculiar conceptualization of the "good life" possible, can make a website enormously impactful.

Furthermore, none of the websites discussed in this dissertation use interactive online campus tours. This is rather a surprise, inasmuch as 3 of the 12 respondents did indicate that they used such virtual tours as part of deciding which institution was the one that best suited their personal needs. While 9 of 12 student interviewees took advantage of in-person campus

tours instead of virtual tours accessible online, it seems as though all of the online resources in this study (and elsewhere) could do themselves a great service by considering their use in the future. Likewise, half of the student respondents are most content with drawing information off of a third-party site instead of directly from the university or college website. There is much room for growth here, and what all online resource sites need to do is to advance from offering passive information to be digested by inquisitive students, to offering proactive and interactive services that allow students to treat the website as a sort of surrogate academic counselor. If this is done, then even a website such as Collegeboard.com will see a marked improvement in its traffic.

Another insight to be gleaned from this study is that students are diverse, and will arrive at their own findings in diverse ways. Online web portals and resource tools have not yet reached a point whereat they can offer a wholly individualized experience to all students seeking the right institution for their needs. Creating greater real-time reciprocity between the site and students must be the next step forward for these sites if they want to become the twenty-first century version of the traditional academic guidance counselor. At the backdrop of loan repayment burdens, shifting job trends and labor market demands, students and their families want to have mutual exchanges with online resource tools that provide them with information and reasons why their futures are more secure enrolling in a specific program at a specific institution than somewhere else. If these questions are well addressed then online resource sites will graduate from being places that accrue information for student perusal, to places that act as guides through the selection process.

# 7 Conclusion

After examining the sentiments of 12 students, 5 parents, and 2 admissions officers, this collection of interviews leads to a few certain conclusions. The first is that, while they may not appreciate in full the consequences of loan repayment failure post-graduation, students do appear to have a keen understanding that the selection of a college or university is a business decision in many respects: a poor decision can lead to financial difficulty and to a life lived less well. A smart decision, however, can lead to a life of material comfort and the accumulation of resources that can enrich one's life and the lives of others. Moreover, financial considerations aside, students do appear to be quite taken by online resources that address the specific concerns they may have. Although Collegeboard.com does not appear to run surveys or feedback forums with the aim of identifying specific student concerns and preoccupations, the site appears to be the most appealing of three sites discussed in this paper. Much of the positive sentiment rests upon the fact that Collegeboard.com simply offers more information, and more access to more institutions, than its counterparts. None of these resource sites, however, provide real-time counseling for students, and none of them – save for key word searches – appear to have an interactive dimension that allows students to contact experts in real time or to accrue answers to specific questions that reach beyond the data already present on the site. This absence of an interactive capacity is perhaps the chief reason why none of these online sources are operating with optimal efficiency. Real-time interaction is a key component of customization and even scalability; if Collegeboard.com, or some other online site, ever moves in this direction, it will effectively turn itself into an online academic counselor for prospective students. And that, suffice it to say, could prove an enormous win.

Moreover, three online resource sites discussed in this paper all seem to be distinguished more by what they lack, than by what they possess. All three sites do not emphasize or prioritize issues that Fishman (2015) and others emphasize in their broad surveys of American youth seeking the best colleges for their personal circumstances. Although this study is rather limited, it seems clear that the issues revealed as important to young people in the interview sections of this paper, along with the findings of Fishman (2015) and others, are issues that should be given more express focus on all academic resource sites. In the case of Collegeboard.com, the complimentary comments of young people tend to focus more on the sheer volume of information available (though there is

acknowledgment of the impressive breadth of financial data available), than they focus upon specific informational data-sets that students consider most important of all in choosing the right school. Just as good sites must have an interactive component, they must also gather information on young people so as to gain insight into what general issues or concerns seem to most preoccupy the minds of young men and women seeking to embark on a post-secondary career. Real-time surveys and forums should be expanded and enhanced as avenues for learning more about the young people the sites seek to serve.

Another item that springs to mind as we review the accumulated data and research findings, is that students today, while they wish to have access to credible authorities who can steer and guide them, are much closer than ever before to the sophisticated consumers that Chapman (1986) describes in his work of more than 30 years ago. This seems quite apparent in the 12 student interviewees contacted for this study: all of them were painstaking in their research, all of them saw great merit in using the aforementioned research sites to access information that could be used for their own college selections, and all of them see the merits of a multimodal approach to research – with a keen appreciation of the need to check and re-check the information that presents itself to them. In many respects, Chapman (1986) was describing the self-motivated young people of 2018 than he was the young people of his own time. And his belief in the notion that students are sophisticated consumers seems appropriate with the current age and the fact that so much more information is readily available to prospective college students today than was readily available to them three decades ago. The young college-seeker of 2018 values information and is not intimated by it. However, they are very clear about what kinds of information are most relevant to them, and it seems that many college resource sites do not yet know their clients as well as they should. The young person of today is very keenly interested in what kind of post-graduate success those completing a particular course of study in a particular college can expect. They want to know about available financial aid – including scholarships – and they want to know what facilities are present to aid students in times of adversity. Because so much is now available online, these students have the luxury of being able to cross-reference and check information present on one site (such as a college website) with information furnished elsewhere. Thus, online resource tools will have to stay ahead of the curve by adjusting data in real-time so that what they present to students, and aspiring students, is as objectively true as possible. In the American college selection world of 2018, the power now resides with the consumer instead of with the service provider. It will be quite interesting to see how online resource sites and portals mediate the gulf between consumer and institutional service provider at a time when

third-party access to some institutional statistics and data must still be negotiated. Perhaps, though it remains early days, the further democratization of the selection process will see online forums accrue information from users to such a voluminous extent that the last remaining traces of control enjoyed by institutions over information access and distribution will be broken for good. This could prove a great boon for students, for candidates for enrollment at various institutions, and for third-party providers.

Last of all, the findings of this study suggest that, unless a website or online resource tool can offer a host of different services all in one, students who are seeking enrollment in the right post-secondary institution will have to consistently seek a number of sources from which to collect the information they need to make an informed choice for their future. Again, the three online resource sites compared in this paper could all do much more to create interactive features that appreciate how contemporary college applicants are unafraid to exploit virtual reality and real-time communications in order to find the right information they seek.

To close, there is little question that Internet resources play a critical role in knowledge acquisition for young people. As evidenced above, some sites do better than others; some might well do worse than all. A comparative analysis of three leading sites suggests that the key function of any online reference or resource site is to furnish information that students can synthesize and subsequently use. A review of the literature, this time with a broader eye, suggests that students today are very much in control of their college selection, but still yearn for interaction with others who might have insights they do not. Ultimately, it befits online resource sites to look at the findings of Fishman (2015), Burdett (2013), and this study, and recognize that students tend to have specific concerns they wish addressed, as well as peculiar preferences for going about learning all that they need to learn before they set foot on a college or university campus.

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# Appendix I: Interview Guide for Student Interviews

1. What are you goals for the future?

2. What are the goals of your parents with regards to your future?

3. Why are you interested in the area of study you are pursuing?

4. What must a college or university have for you to consider it above all others?

5. What is the most important information you want to learn about any college or university?

6. Why does this information matter to you more than other pieces of information?

7. What is the most effective or convenient way for you to go about studying educational institutions?

8. What is the role of the Internet in helping you to make the right choice of school?

9. Have you used College.board.com, College Navigator, and College Insight to learn more about various schools?

10. If you have used them, which site is your personal favorite?

11. Why is it your personal favorite? What does it have that the other two do not have?

12. What are the shortcomings of the aforementioned sites?

13. When you are engaged in your research on colleges and universities, do you prefer to use only the Internet, or do you also ask for assistance from academic counselors and admissions officers?

14. Do you have a personal method for distinguishing between poor information and good information?

15. When you are faced with challenges or difficult hurdles in the selection process, is there one person you want to speak to above anyone else?

# Appendix II: Interview Guide for Parents

1. What are your goals for your children?

2. How important is the Internet in finding the information you need to assist your children in making the right choice of institution?

3. Can you list, in order of importance, the items that you consider most important for a school to have for you to want your children to be enrolled in it?

4. What is it about some college engineering programs that make them better than alternative ones?

5. How important are school academic counselors in providing information you need to help your children make an informed choice?

6. What do you believe a website or online resource should have to be useful and functional for students and their parents striving to learn more about colleges and schools?

7. What are the most important questions you have when looking at a school for your children?

8. Are you familiar with Collegeboard.com, College Navigator, and College Insight?

9. What is your favorite website for seeking out information?

10. What makes it your favorite?

11. Do you believe that an Internet resource site should have an interactive capacity?

12. What would you like to see changed about the college selection process?

13. What should online resource sites do to make them optimally functional and useful?

# Appendix III: Interview Guide for Admission Officers

1. In your experiences, to what extent do students use the Internet to make their college selection choices?

2. Is the Internet the most important tool they use to make their selections?

3. Out of Collegeboard.com, College Navigator, and College Insight, which one do you find students use the most?

4. Do you know why they tend to use one or the other?

5. Which resource site do you prefer as a guide to institutions?

6. What does a resource site need to have to be optimally functional and useful?

7. How important is it to have interactive features within a resource site dedicated to helping students make decisions about college or university?

8. How can resource sites make themselves more responsive to student questions and concerns?

9. Does your institution use social media much to recruit or reach out to prospective students?

10. How has the Internet changed the role of academic counselors in the college selection process?

11. Do you feel that the Internet has democratized information when it comes to the college selection process?

12. Has the Internet made it harder for institutions to control information and how they

present themselves?

13. Where do you see the future of the Internet in the context of the college selection process?

14. Do online resource sites impact your job?

15. Are students today better informed consumers than they were in the past because of online resource sites? Why, or why not?