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Evaluating and Improving an Academic Advising Website

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Evaluating and Improving an Academic Advising Website

An Interdisciplinary Qualifying Project
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of the

WORCESTER POLYTECHNIC INSTITUTE

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Abstract

This is a comparative study of academic advising websites to improve the effectiveness of the website of the Office of Academic Advising (OAA). It has been determined that the current OAA website is not fulfilling its potential. A competitive value analysis was performed on academic advising websites from other universities, and a means of ranking these websites was contrived. From ranking these websites, good practices for academic advising websites were extracted. Finally, these good practices were presented as recommendations for improving the OAA website.

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Chapter 1

Introduction

The Office of Academic Advising (OAA) at Worcester Polytechnic Institute (WPI) first created an advising website approximately twelve years ago. In the interim, there have not been many changes made to the website.

The primary purpose of the OAA's website is two-fold: provide a source of information that students, faculty and parents need in many areas related to academics at WPI, and allow said audience to conduct routine business on the website which would otherwise require trivial trips across campus. While these are the intended purposes, various factors have, over time, caused the OAA website to become less effective.

The current director of the Office of Academic Advising made some significant changes to the content and layout in 2000. In particular, sections of the website were added for both the Disabilities Services Office (DSO) and the Academic Resources Center (ARC). In addition, a frequently-asked-questions (FAQ) section was added, which served to address the most common questions students would come into the OAA to ask. Structurally, the entire website was reorganized to address certain groups, which would aid visitors to the website in finding the information they were looking for more readily. While this much-needed attendance to the OAA's website made many improvements, Internet technology has continued to advance at a rapid pace, and once again, the OAA website has become stagnant and outdated in the interim, both in content and in appearance.

The OAA website prior to 2000 had many features that needed to be improved, yet there were a few useful and effective tools that were available both for student and the OAA staff which were discontinued for one reason or another. One tool in particular allowed students to submit forms electronically to the OAA instead of making a trip across campus to submit the form. This feature simply sent the relevant information from the form to the OAA director, who would make appropriate record changes before forwarding the form to the Office of the Registrar. These simple yet effective features have been eliminated, usually as a result of changes in the web content management system. On top of not only reimplementing these online submission systems, work flow management software is now available that will allow students' advisors to electronically approve forms before they are submitted to the OAA.

Another point of concern is the fact that at times when large volumes of students need advising, students with routine questions often must wait to have their questions answered. This results in frustration by the students because their needs are not being met, which sometimes exacerbates their situation. Many of these questions can be addressed by a more effective and efficient OAA website. If the OAA website fulfilled its purpose, it would both reduce the amount of traffic in the OAA office, as well as allow the students who need the most help in

the form of one-on-one counseling to be met with in a timely manner.

Since a major change in the university's website is in the works, it seems time for the OAA's website to receive a virtual face lift as well. However, simply changing the website will not be enough. It is apparent that a cultural change is required such that students, faculty, and parents will utilize the website to its full potential. It is time for the OAA's website to be cleansed of the technology from the past, and embrace the technology of today's Internet.

This study will develop a method for evaluating and ranking academic advising websites of different universities with a competitive value analysis. From this, certain good practices for advising websites will be extracted. These will be used to creating recommendations for the Office of Academic Advising for ways to increase the effectiveness of the OAA website, which is currently not utilized to its full potential.

Chapter 2

Background

The Office of Academic Advising is a resource for student, faculty, and parents for information about all aspects of academics at Worcester Polytechnic Institute. Located on the ground level of Daniels Hall adjacent to the Office of the Registrar, it has a staff of three full-time and one part-time helpful people eager to field any and all questions, and if the answer is not immediately at hand, they are able to refer one to the appropriate resource. These inquiries usually include scheduling uncertainties, academic coaching, advice about majors, etc.

2.1 Goal of the Website

The original OAA website was created in the late 1990s. The main purpose of the website was to extend the helpful arm of the OAA onto the Internet, so that students needing academic advice of various sorts could quickly and easily get results. The website also serves to address common queries to the OAA staff, as well as conduct routine business that could otherwise be automated.

One of the more frequent requests from students visiting the OAA is for a form to be submitted to the Office of the Registrar. The most frequent forms requested are

- WPI Course Change Form (Add/Drop Form),
- Language Study in High School Request for Credit,
- Undergraduate Credit Transfer Authorization, and
- Major/Minor/Concentration Change & Declaration Form.

Prior to the website changes in 2000, these forms were available in electronic versions on the website. Visitors to the website were invited to download and print the forms themselves in lieu of making a trip to the OAA solely to retrieve a copy. Although this feature no longer remains, the website provided the ability to actually fill out select forms and submit them to the OAA staff electronically.

2.2 Audience of the Website

Initially, the audience of the OAA website was defined recursively as those who could benefit from the information and services the OAA website provided. When the website was updated

in 2000, the navigation made the website's audience clear: *incoming students, matriculated students, parents, and faculty advisors.*

2.3 Web Applications that Improve Functionality

As previously mentioned, today's Internet technologies, including website care and maintenance, are advancing at a rapid pace, and have left the current OAA website almost obsolete and outdated. There are many tools webmasters can employ to keep their websites feeling up-to-date, and this study will in no way attempt to exhaustively list all of these tools. However, there are a few tools that are commonly used in information-related websites, and other common practices used in administering a website that should be discussed. To list a few, these include

- instant chat,
- visitor counters,
- electronic form submissions, and
- wikis.

The following will consist of a brief introduction to each of these web technologies.

Instant Chat

Instant chat is a common feature on many customer-service websites that allow a representative of the website to have a virtual conversation with a visitor to the website via instant chat technology. This typically involves some type of dynamic environment on the website that connects a visitor with a live person who can answer any questions the visitor may have.

Instant chat technologies typically consist of three parts: an input box, a submit button, and a chat log. The input box allows a visitor to enter a question into a text box. The submit button sends the question to the website representative, as well as move their question from the input text box to the chat log. When the website representative responds, their response will be displayed in the chat log as well, chronologically after the question from the website visitor. Subsequent dialog from the visitor is again inputted into the text box and submitted, and then displayed in the chat log. This allows the website visitor and the website representative to converse back-and-forth until the visitor's question is answered.

Instant chat is commonly used on websites providing services where human interaction is being replaced by the website. Instant chat can be compared to customer support provided over the phone. Instant chat is suited particularly well for websites providing information to visitors because the visitor can not only get personal help from the attendant via the chat conversation, but can also get links to their specific desired information directly in the web browser they are using, making the information-finding process more streamlined. Examples of websites that have instant chat include university library websites (WPI's library website) and online catalog websites (Digi-Key.com online catalog), as well as customer support websites (HP support services). While instant chat provides these benefits, there is a downside to using it if not handled properly. For instance, if a visitor to the website sees that the instant chat is active and an OAA representative is available for answering questions, they might expect a

response in a matter of seconds. If the OAA representative does not respond quickly enough, the visitor may associate this with the type of service they will get if they were to actually come into the OAA. Thus, there are certain aspects of instant chat that must be evaluated before it is implemented on the OAA website.

Visitor Counters

Visitor counters, although in use for many years now, are another common feature on many website. This feature monitors which pages of the website are being visited the most, and which external websites are linking to which pages on one's own website. Visitor counters, also sometimes referred to as web counters or hit counters, are a way to record the number of visitors a site has over a given amount of time. The count of the visitor on a specific page of a website is incremented every time a visitor accesses the page in a web browser. It may also record the last page the visitor was on before arriving at the current page, how long the visitor stayed on the page, and other various pieces of information about the visitor.

Visitor counters can be effectively used by a website's caretaker to track visitor trends on their website. Such trends include which pages on the site are visited most frequently, how long a visitor viewed the page before moving on, and sometimes the relative physical location of the visitor (such as if the visitor is on a university's campus, in the case of a university's website). By monitoring these statistics and interpreting the data carefully, the information can be used in conjunction with other tools to improve the efficacy of the website. If there is conflicting javascript in the website's code, however, the visitor counter would be rendered useless.

Electronic Form Submission

The OAA used a type of electronic form submission in the first revision of the OAA website. As mentioned previously, this form was both filled out and submitted on the OAA website. It was a direct path from the website's visitor to the OAA's email. There have been advances in PDF editing programs and more universal PDF integration in Internet-related software, as well as Internet integration in PDF-related software. This is appropriate for a form such as the "Major/Advisor Change Form" that the OAA provides currently. However, the most common types of forms that the OAA has available in paper form currently require not only information from the student, but also signatures from certain professors for approval. The process of form submission to the OAA or Office of the Registrar sometimes has multiple steps that involve more than a single person in order for the form to be processed.

Because certain forms have a multi-stage nature for submission, it is not feasible to have the same form submission process used by the OAA website in the past. Many productivity software suites now include some type of work flow management application, which also are suited to streamline electronic form submission. These software packages are tied in with the campus-wide user database, and when a form is accessed via an Internet browser, the person filling out the form will be first required to log-in to the system, so that the student can be automatically identified. After the pertinent information is filled out by the student, they can electronically submit the form for approval to their academic advisor or department head via email. To approve the form, the advisor or department head simply needs to click an "Approve" button in their email, and the approved information will subsequently be submitted to the OAA for processing.

All of these features cater well to the types of forms the visitors to the OAA website require, and together are a useful tool in achieving the goal of the OAA website.

Wikis

The nature of the Internet, being a vast community of interconnected and interested individuals, lends itself well to a forum-type environment. Recently, many websites have been created which are essentially a repository of collective knowledge. This phenomenon began with an information-oriented website giving any visitor the ability to access, edit, and contribute information to the collection. The most notable of these sites is Wikipedia.org, and is also where the name for this type of tool comes from: wiki.

Wikis are obviously most useful for informational websites, where visitors come to find information. A wiki is also suited well for topics that are constantly changing, or ones where no single person has all of the information. In these situations, any visitor to the site reading an outdated, incorrect, or simply missing article about a particular topic can quickly and easily amend the discrepancy and the updated, corrected, or newly added information is immediately reflected on the website for subsequent visitors to benefit from. Since the information can be edited by anyone, the content is self-regulating and dynamic, requiring little work from the website administrator to oversee a very substantial, and constantly growing, resource of information for visitors.

An administrator of a wiki has the ability to set certain access privileges for an individual article or groups of articles. This is useful when a certain article is not a matter of collective knowledge, but instead contains rules, regulations, or official statements that should be left intact and whole. An example of this would be a university's official academic policies, which are released by the university and not open to discussion in a wiki-type of forum. Along a similar line of discussion is the ability to track changes to an article, and roll-back an article to a previous revision, should the need arise. This is useful when malicious visitors attempt to vandalize the website, as a roll-back to a previous, vandalism-free version of the article is as simple as a few clicks of the mouse. Another features include the ability of visitors to request an article or information that is missing, with the community or the website administrator able to heed the request. While much more functionality of wikis has not been discussed, this brief background gives an overview of their capabilities. As it is yet to be determined whether wiki technology will be appropriate for implementation in the OAA website, it is important to consider wikis for their ability to manage collective knowledge from the community.

2.4 Summary

While many other Internet technologies exist that are very capable of bringing the OAA website out of the dark ages of the web and into Web 2.0, these four topics give a good survey of the types of web technologies that are readily available and easy to implement, and most importantly, going to enable the OAA website to achieve its goal of providing an online residence for the OAA where visitors can save time and energy while finding needed information and getting the help they need in a timely manner.

Chapter 3

Methodology

The goal of this study is to provide recommendations to the Office of Academic Advising for ways to improve the effectiveness of the OAA website, which is currently not utilized to its full potential. This chapter outlines the methods used in gathering and processing information to achieve the purpose of the OAA website.

3.1 Overview

The first step in achieving the stated goal is to develop criteria to measure the quality of an advising website. Next, a comparison of advising websites will identify certain practices that, if implemented, would yield a more effective and informative OAA website. After these practices have been identified, they will be expanded upon and further developed. These criteria can be considered the content of the website. Effective ways of implementing these strategies can be discussed, as well as how to properly utilize them to achieve their full potential. Finally, parts of a website that contribute to or detract from the “look and feel” of the website will be determined, and ways to improve the OAA’s look and feel will be discussed. Following this, the results of the advising website comparison will be used to make recommendations to the Office of Academic Advising to improve the OAA website.

3.2 Website Content

Acquiring the information contained on a website is the primary reason for someone to visit a website. If the content of the website does not contain what the visitor wants, they will seek the information elsewhere. Because the OAA website is meant as a place for students to find information provided by the OAA, the content of the OAA website is significantly important. Without the proper content, the website will have failed in fulfilling its goal to visitors. Hence, before any other aspect of the website is considered for editing, it must be assured that the correct content appears on the pages of the OAA website.

3.3 Look and Feel

The way a website appears to a visitor and the way the visitor interacts with the website are important aspects that should not be overlooked when a website is being designed [1]. Since

a visitor's initial impression of a website is created the instant they see the website for the first time, it is very important that a website appeals to the eye of the visitor. Furthermore, as the visitor begins browsing the website, an almost tangible "feel" to the website is formed. As with the visitor's first impression, the way a website *feels* will play a major role in its appeal.

3.4 Website Comparison Groups

The competitive value analysis completed between the OAA website and advising websites from other universities shows certain properties that might be applicable to an academic advising website, and the prevalence of these properties areas across the reviewed websites. The competitive value analysis includes six other advising websites from well-known universities across the country and compares them with the WPI OAA website. The advising websites come from the following schools.

- Worcester Polytechnic Institute [2]
<http://www.wpi.edu/Admin/OAA/>
- Rensselaer Polytechnic Institute (RPI) [3]
<http://alac.rpi.edu/update.do?catcenterkey=0>
- University of Rochester (Rochester) [4]
<http://www.rochester.edu/College/ccas/AdviserHandbook/AcadAdvising.html>
- Massachusetts Institute of Technology (MIT) [5]
<http://web.mit.edu/uaap/>
- Stanford University (Stanford) [6]
<http://ual.stanford.edu/AP/advising/Advising.html>
- California Institute of Technology (Caltech) [7]
<http://admissions.caltech.edu/learning/advising>
- Virginia Institute of Technology (VA Tech) [8]
<http://www.uaac.vt.edu/>

The range of different schools was sufficient in showing the differences and similarities across the groups. The list includes schools similar in population to WPI, as well as much larger private technology institutes, and other large public universities.

3.5 Competitive Value Analysis

The results of a website comparison matrix based upon the previously mentioned criteria will be used to quantitatively analyze the websites. Using the quantitative data extracted from the tables, graphs and charts will be fashioned, allowing a qualitative analysis and comparison to be performed. The results of the competitive value analysis will give a quantitative score to the advising website being compared, which is used to formulate specific ways in which the OAA website can be improved. For example, the competitive value analysis gave a weighted score

of 76% to the Stanford advising website, compared to a score of 68% for the RPI advising website. Comparing the differences will identify properties common to higher-scoring websites. These properties will then be individually evaluated and their relevance to the OAA website determined. This will then lead to specific and general recommendations that will be delivered as the results of this study, providing guidelines on improving the current status of the OAA website, as well as helping the OAA website more fully achieve its purpose.

Section Weights

If a simple comparison matrix of competing university advising websites is created without the section weights, certain information may be hidden in the results. For example, an advising website performed well in every category except for the category of actually advising students. It seems obvious that this website should not be rated better than a website that had competent advising information, but lacked the ability to fill out forms online. Giving weights to sections remedies this disparity. The fact that a “low-tech” website has poignant and relevant advising information is more valuable than a website that oozes tech-savvy webmaster skills yet lacks and actually useful information. To reflect this aspect in the competitive value analysis, different weights will be assigned to the categories based on how valuable they are to the overall goal. Incidentally, this assigning of *value* based on importance is what gives the competitive *value* analysis its name.

3.6 Recommendations

The results of the competitive value analysis provide specific items that the OAA website can be improved upon. The results of the competitive value analysis forms the basis for specific recommendations describing how to improve the effectiveness of the OAA website. These recommendations are action items that can be used by a website administrator to increase the score of the advising website they are administrating.

3.7 Summary

All in all, this methodology has outlined proper methods for conducting this study on the improvement of the Office of Academic Advising website. If the methods described above are followed in a proper manner, the results will be well-developed and easy-to-follow recommendations for techniques to improve the state of the OAA website to meet its stated goal.

Chapter 4

Analysis of Results

4.1 Results of Competitive Value Analysis

A competitive value analysis between different advising websites shows aspects of the comparison that otherwise would not be obvious. The criteria are divided into three parts, and each part is given a certain weight such that the sum of all three weights equals a unit weight. The weights of the sections can be considered that section’s importance, or relevance, to the overall comparison of the websites. A summary of the competitive value analysis can be seen in Table 4.1. (The complete competitive value analysis matrix can be seen in Table A.1 in Appendix A.)

Table 4.1: Summary of weighted section scores compared across seven universities.

	WPI	RPI	Rochester	MIT	Stanford	Caltech	VA Tech
Mandatory Content [65%]	33%	49%	33%	33%	49%	8%	57%
Additional Information [25%]	4%	18%	21%	7%	21%	11%	11%
Look and Feel [10%]	4%	1%	9%	6%	6%	2%	6%
Total Weighted Score:	40%	68%	63%	45%	76%	21%	73%

Section Weighting

The competitive value analysis of university websites will be judged on criteria that consistently appeared across multiple websites. These criteria were grouped into the following three sections with the indicated weighting explained in the following text:

- Mandatory Content [65%]
- Additional (Relevant) Information [25%]
- Look and Feel [10%]

The section containing Mandatory Content contains criteria that is more–or–less expected to be on a competent academic advising website. These are the reasons for creating the academic advising website, and consequently it receives the highest weighting, 65% of the overall value of the comparison. Secondly, the criteria considered Addition Information that visitors to the

academic advising website may be looking for is given a weight of 25%. These topics are ones that probably have their own offices or departments in the university, and thus should be addressed by those respective websites. Lastly, 10% of the total comparison value is allotted to Look and Feel. While this section is not the most crucial, their inclusion (or exclusion) make a difference in the overall task of finding academic advising information. These topics are also aspects of the website that require the most constant attention and updating. But, they are items generally tolerated if not constantly upkept.

Mandatory Content

The most important content of an advising website is considered *Mandatory Content*. This content is further divided into the following eight categories.

- First-year Students
- Transfer Students/Transfer Credits
- Parents/Family of the Student
- Information for Advisors/Advising Resources
- Course Planning
- Academic Assistance
- Individual Counseling/Academic Coaching
- Tutoring Services

These criteria form the basis for the mandatory content that every advising website should include. The following is the competitive value analysis of these criteria for seven different universities. This can be seen in Table 4.2.

Table 4.2: Mandatory Content criteria compared across seven universities.

	WPI	RPI	Rochester	MIT	Stanford	Caltech	VA Tech
First-year Students	✓			✓	✓	✓	
Transfer Students / Credits	✓	✓	✓		✓		✓
Parents / Family of the Student	✓				✓		✓
Information for Advisors	✓	✓		✓			✓
Course Planning		✓			✓		✓
Academic Assistance		✓	✓				✓
Individual Counseling		✓	✓	✓	✓		✓
Tutoring Services		✓	✓	✓	✓		✓
Mandatory Content Score:	50%	75%	50%	50%	75%	13%	88%

The Mandatory Content Score in this table does not consider the weighting of the Mandatory Content section.

First-Year Students It is common for universities to have a very comprehensive orientation program for new students. However, this orientation will not be able to answer all the questions that first-year students will have. Even if the orientation material has address a certain question, a student may want to find this information after orientation has ended. A section dedicated to first-year students will answer such questions. Also, parents and family of first-year students may also find an informational section on first-year student topics helpful and insightful.

Transfer Students/Transfer Credits Transfer students have special needs and ask different types of questions than other students. Since they are not new to the college experience and being at a university, their questions will be inherently different than those of first-year students. Also, transfer students, who are used to doing things a certain way at their previous school, and will need help getting acclimated to the way certain things are done at their new institution. A section for transfer students will help to address these issues and make their transition easier. Furthermore, students who take courses at other schools and are seeking to transfer the credit into their home institution will need information on this process. It is important to make the distinction between information targeted for transfer students and information aimed at simply transferring credits.

Parents/Family of the Student Since college is usually a transitional period where a student begins to become more independent of their parents or legal guardians, it is sometimes hard for parents to make this transition. The concerns of a parent or family member are usually much different than those of a student. The parents will be looking for information about how to ensure their student's well-being is preserved, and the resources and facilities provided to their son or daughter to be successful. Other information this audience is looking for includes information for visiting the institution and accommodations for staying in the area while visiting their student.

Information for Advisors/Advising Resources While the Office of Academic Advising usually is more concerned with academic issues and problems a student might encounter in academics, a student's advisor in their specific field of study is probably not a trained counselor. While the content of the information they will provide to students will usually be found in each advisor's respective department, the skills they must learn to be able to properly advise a student usually will not be provided by their department. While the content of the information a student is seeking is important, the way the content is delivered and how situations are handled that are not specifically related to their field of expertise is important. Students are more likely to speak with an advisor from their department who they are more familiar with when they are having various difficulties. If the faculty advisor the student chooses to confide in does not know how to handle such situations, it can result in the problem being ignored or even exacerbated. Thus, resources for advisors on how to handle these situations, as well as information on how to provide help and where to refer the student is an important tool.

Course Planning One of the more important decisions a student has to make is selecting a course schedule that will enable the student to make sufficient academic progress towards their degree requirements. If not done correctly, an ill-conceived schedule can prevent a student from graduating on time, or cause them to take a course out-of-sequence, possibly resulting

in poor grades or even failing a course. Students need help with course planning, especially during the beginning of their career at college, before they have solidified their major field of study or completed their general education requirements. Whether it be sample course schedules from their major field of study, or the ability to meet with an advisor to discuss their plans further, students should be able to find these resources from the advising website.

Academic Assistance Help for students in academic difficulty is perhaps the most critical and time-sensitive information out of all the information available from an office of academic advising. Put simply, students in trouble are the ones that need the most help the most quickly. Students who fall into academic difficulty typically are not aware of the resources available to them for help. Also, by the time they realize that they are in academic difficulty and may need some help, it may be long past the time where they could have gotten preventative help. Therefore, the information for students in academic difficulty is the type of information that should be on the academic advising website.

Individual Counseling/Academic Coaching The purpose of an academic advising office is to provide academic advice. While it would be difficult and quite possibly impossible to create an exhaustive document on all the types of advice a student may need from the academic advising office, it is much more practical to provide the student with the opportunity to speak one-on-one with a counselor or advisor. This act not only gives the most accurate and specific information for each particular case that may arise and need advising, it also makes the information being received more credibility with the student than simply reading advice off of a database of information. Personal one-on-one meetings are an important part of both the diagnosing and treatment of academic issues, and should not be discounted. Hence, providing an easy way to get information about individual counseling or academic coaching is one of the most important aspects that should be present on an academic advising website. Although the ability to schedule these one-on-one sessions is not necessarily mandated, how to schedule a session should definitely be prominent and easy-to-do.

Tutoring Services It usually takes a lot for a student to admit that they need help. Once they have admitted this fact to themselves, the next step is to admit it to others. Tutoring services are the way in which a student in need of assistance asks for help. An academic advising website should provide ample information about the tutoring services available to students. However, simply telling students that there *are* tutors is not sufficient. The information required when a student looks for tutoring services includes which subjects or courses the tutoring is for, when the sessions are held, where the sessions are held, and what the student needs to do to attend a tutoring session. Other information that could be helpful includes who is doing the actual tutoring and what their qualifications for tutoring are. Although not necessarily required, it would be helpful to students if they could search for a tutor based on different criteria.

Additional Information

Other information that is not the main focus of the website, but augments the information already on the website is called *Additional Information*. The Additional Information is helpful for students and parents to find the information they need. The Additional Information may not necessarily be exhaustive and it may simply redirect the student to another department

or office on the school's website. This information is meant to compliment the Mandatory Content. The following seven topics are a list of additional information that will augment a student's visit to an academic advising website. This list is in no way exhaustive.

- Co-Op/Internship
- Undergraduate Research
- Study Abroad
- Graduate School
- Pre-Med/Pre-Law/Pre-Vet
- Career Planning
- Form Downloads

These criteria form the basis for the additional information and resources for students that is complementary to the mandatory content on an advising website. The following is the competitive value analysis of these criteria for seven different universities. This can be seen in Table 4.3.

Table 4.3: Additional Information criteria compared across seven universities.

	WPI	RPI	Rochester	MIT	Stanford	Caltech	VA Tech
Co-Op/Internship		✓	✓		✓		
Undergraduate Research		✓	✓	✓	✓	✓	
Study Abroad		✓	✓		✓		✓
Graduate School		✓	✓		✓	✓	
Pre-Med/Pre-Law/Pre-Vet			✓		✓	✓	
Career Planning		✓		✓	✓		✓
Form Download	✓		✓				✓
Additional Information Score:	14%	71%	86%	29%	86%	43%	43%

The Additional Information Score in this table does not consider the weighting of the Additional Information section.

Co-Op / Internship Co-ops and internships are something most students are striving to get at some point in their college career. They are a powerful resumé boosters and it is usually highly competitive to get an offer for one. The qualifications used to determine acceptance for an internship or co-op usually are based in a student's academic accomplishments. Thus, it is only appropriate for information regarding co-ops and internships to be accessible from the academic advising website.

Undergraduate Research Similar to co-ops and internships, undergraduate research opportunities are sought-after by many students who wish to pursue graduate school after their undergraduate commencement. Often, undergraduate research positions are even more competitive than co-ops or internships. If a student is striving to get an undergraduate research position, they will require an excellent academic record.

Study Abroad Many students try to study abroad during their college years. It is one of the quintessential college experiences that has been growing at universities across the United States. Also, over sixty-five percent of students at WPI complete at least one of the required projects off campus. Furthering one's education in an exotic and exciting locale is something that everyone can benefit from, and something an academic advisor may suggest, or advise against, a student.

Graduate School After a student has gone through so much to get into an undergraduate program at their university, it can seem daunting to go to school for even more years to get a higher degree. But consistency is important for students applying to graduate schools, and benefiting from the services offered by academic advising will undoubtedly boost their performance.

Pre-Med/Pre-Law/Pre-Vet Many times, throughout the course of getting advice from an academic advisor, a student may reveal their desire to go to medical school, law school, or even veterinary school after they receive their undergraduate degree. Students usually do not realize that their normal degree courses may not meet the prerequisites for these specialty programs. An academic advisor will be aware of this fact, and usually recommend to the student to check such prerequisites in order to determine their eligibility.

Career Planning Most people going to college are preparing for a career of some kind. The skills that one learns while in school will help them succeed in the workplace. Academic advising will help students learn these required skills and help students in their undergraduate career so that they can find a well-earned job upon completion of their degree requirements.

Form Download One of the most frustrating things a student has to do in a university with thousands of other students is to make changes to their official records. Whether this change is simply a change of their major, a change of their advisor, or some last-minute course changes, the process usually entails the student trekking across campus to several locations. The first thing a student usually must do is pick up the correct form that they need to have all associated parties fill out. An obvious time-saver for the student would be if the student had the ability to locate the appropriate form on the school's website, and then print out the form and begin filling it out. While a majority of the visitors to the academic advising office usually leave with one of these forms, it goes without saying that providing these forms in electronic form would save time for many students and advising staff alike.

Look and Feel

While the previous two sections were focused on content, the final ten percent of the comparison is based on a website's general design, called the *Look and Feel*. While some may consider the value of proper website design to be negligible when compared to the previous two sections, it should not be overlooked. A website with good content but a poor design is like an undercooked meal; the food still has the same nutritional value as a gourmet meal, but nobody will want to eat it because of the way it is prepared. Thus, seven topics concerned with the look and feel as they pertain to an academic advising website are as follows.

- First Result in "advising" Search

- Consistent Format with School Website
- Up-to-Date News Feed
- Frequency Asked Questions (FAQ)
- Ask a Question/Submit Feedback
- Academic Advisor Profiles
- Consistent Navigation Method

These criteria form the basis for the website’s look and feel, which has an impact on the overall visitor experience on the advising website. The following is the competitive value analysis of these criteria for seven different universities. This can be seen in Table 4.4.

Table 4.4: Look and Feel criteria compared across seven universities.

	WPI	RPI	Rochester	MIT	Stanford	Caltech	VA Tech
First Result in “advising” Search	✓		✓	✓	✓	✓	
Consistent Format with School Website			✓				✓
Up-to-Date News Feed			✓	✓	✓		✓
Frequently Asked Questions	✓	✓	✓				✓
Ask a Question / Submit Feedback				✓	✓		
Academic Advisor Profiles			✓	✓			
Consistent Navigation Method	✓		✓		✓	n/a	✓
Look and Feel Score:	43%	14%	86%	57%	57%	17%	57%

The Look and Feel Score in this table does not consider the weighting of the Look and Feel section.

First Result in “advising” Search When a student makes the decision to seek help or advice from the academic advising office, there is a high probability that the student does not know where the office is located on their college campus. There are even worse odds when it comes to the URL, or the Internet address, of the academic advising website. The first step for a student in this situation would most likely be a search on their school’s homepage for the term “advising.” To make the student’s quest for help as seamless as possible, it is important that the office of academic advising appears on the results to this query. Ideally, the first hit on the results page should be a link to the homepage of the academic advising website. If this is not the case for a certain school’s website, it is not difficult for the administrator of the school’s Internet domain to put this in effect.

Consistent Format with School Website After a student has successfully reached the academic advising website, the next task is to locate their specific information within the website. It is most likely that the student will be familiar with their school’s main website (i.e. www.MySchool.edu) and will be comfortable navigating their university’s Internet domain because there is a consistent format throughout the site. But now, they have reached the academic

advising website. If the format of the academic advising website is consistent with the rest of their school's domain, it will further smooth the transition and aid in the successful search for information. But if this is not the case, the student will arrive at the correct URL of the academic advising website, but an unfamiliar-looking website will cause the student to question if they came to the correct place. Even worse is an unprofessional-looking website that makes the student question the credibility of the academic advising at his school. These inconsistencies in formatting should be avoided, and with Internet technologies such as cascading style sheets (CSS), there should be no excuse for an abrupt change in formatting between an institute's Internet domain and the institute's academic advising website.

Up-to-Date News Feed Information on a website's main page that includes some kind of current event is reassuring to a visitor, as it makes the visitor feel like the website is updated on a regular basis and that the information found at the website is relevant. If there is nothing on a website's main page that can show it has been updated recently, then a visitor to the site will get a feeling of the information being presented to them as being stale, or possibly even obsolete. An easy way to remedy this is to have a simple news feed on the website's main page. Even if it is simply a regurgitation of the undergraduate calendar in line-item form, it will tell a visitor to the website that it is updated on a regular basis, and the information found there can be trusted as up-to-date.

Frequently Asked Questions Since an academic advising website is used as a resource for information, it is difficult for the website creators to think of every question that visitors to the site may have. If a visitor to the site is unable to find a particular piece of information, the visitor may contact the website administrator or academic advising staff to get the information in question. As more visitors to the website do this for a wide range of questions, it is guaranteed that certain questions are going to be asked more often than others. A compiled list of these Frequently Asked Questions will aid future visitors to the website with similar questions.

Ask a Question/Submit Feedback If there is one drawback to creating a user friendly website instead of actually coming into a people-filled office, it is the loss of person-to-person contact, and the ability to actually converse about a topic in question. If a visitor to the advising website is not finding what they are looking for, they should be given the option to ask the specific question of someone, or at the very least, provide some feedback as to the website's inability to answer their question. This feature on a website usually is a sign that the website actually cares about the visitors to the website, since it allows the visitors to communicate their concerns (or even praises) about the website to the website manager.

Academic Advisor Profiles When a student is seeking help in the form of academic advising, they usually are somewhat hesitant about divulging their problems and issues to some person they have never seen or met before. One way to help a student in need become more comfortable with the advising staff with which they will be speaking is to provide some type of profile about the staff on the advising website. This way, a student can, at the very least, see a picture of the person they will be speaking with, and this can ease some of the stress involved.

Consistent Navigation Method A consistent navigation method is very important for visitors to a website. A good rule-of-thumb for navigating a website is that all information should be accessible from within two clicks of the mouse from the main page. This way, a website will be much easier to navigate, and also easier for a visitor to find the same information on a return visit to the website.

4.2 Evaluation of Current OOA Website

From performing a competitive value analysis on the WPI OOA website as well as advising websites from other universities, it is easier to see how the OOA website fares against other schools' websites.

OOA Website — Mandatory Content

The mandatory content section of the evaluation reveals a large area for improvement in the OOA website. The OOA website only has four of the total eight content areas that are considered mandatory content. The four areas that the OOA website did not have content for (Course Planning, Academic Assistance, Individual Counseling/Academic Coaching, Tutoring Services) are, in fact, located on other WPI websites. This should be changed. These sections should be made prominent and easy to find for a visitor to the OOA website's homepage. For reference, the value analysis of the WPI OOA website has been presented again in Table 4.5.

Table 4.5: Mandatory Content criteria of WPI's Office of Academic Advising website.

	WPI
First-year Students	✓
Transfer Students / Credits	✓
Parents / Family of the Student	✓
Information for Advisors	✓
Course Planning	
Academic Difficulty Assistance	
Individual Counseling	
Tutoring Services	
Mandatory Content Score:	50%

From this overview of the mandatory content on the WPI OOA website, it can be seen that the website is lacking in the following four categories:

- Course Planning
- Academic Difficulty Assistance
- Individual Counseling/Academic Coaching Services
- Tutoring Services

Course Planning

The topic of course planning is difficult to address due to the very “open” policy of prerequisite courses at WPI. Also, there are no general requirements typically seen at other institutions which must be completed before a student may begin taking courses for their major. This allows students to start their major course work from the very first course they take at WPI. In terms of course planning, this makes things much more difficult for advisors to provide a clear-cut solution to students seeking advice. Furthermore, students have the option of completing their IQP and MQP either on- or off-campus, as well as in a single term, or spread across multiple terms. Again, this makes it difficult to predetermine the possibilities a student may take in their course planning.

In terms of course planning for specific majors, there are only a few majors that give students little “wiggle room” as far as which courses they may take and in what order. The other majors have so many courses offered that there are innumerable combinations of class schedules that students may follow. Thus, it is impractical to have a “perfect” schedule for students to copy. It is much more feasible to simply have a few sample course schedules that are varied in their composition, such that students can get a feel for the different routes their time at the university can take. This is the case for some academic departments, but not all. This again presents a problem for the Office of Academic Advising. Since there are more than 30 different major fields of study offered at WPI, the Office of Academic Advising would have a very difficult task constructing this many sample schedules.

The only course of action for this complex matter is for *every* academic department to prepare sample schedules for students and the OAA. Again, this would be a large task, but the effort required to accomplish such a task could be mitigated drastically with the collaboration of each academic department in acquiring these sample schedules. Therefore, it will be a combined effort between the OAA and each academic department to compile these sample schedules to benefit students in need.

Academic Difficulty Assistance

The analysis of the OAA website indicates that there is insufficient information about help for students who have found themselves in academic difficulty. It must be said that this does not imply that the OAA does not have adequate assistance for these students; on the contrary, there are many resources for these students that the OAA provides. The above table simply points to the fact that there is not a lot of representation of these resources on the OAA website, and thus, these services may not be well utilized by students.

Individual Counseling/Academic Coaching

One thing that almost every other website had that WPI’s OAA website did not have was information about individual counseling for students, otherwise referred to as “academic coaching” at some other schools. This is surprising, as it is probably the thing that constitutes the most frequent use of the Office of Academic Advising. While the purpose of the OAA website is indeed to provide students with common information without having to wait to see a member of the OAA staff, this does not mean that students visiting the OAA website are not going to want to meet with a OAA counselor for individualized help.

The OAA website has no information about the individual counseling services offered. This

should be changed, and in fact, it might prove useful to add the ability to schedule these appointments via the OAA website, as is common on a few of the other advising websites reviewed. While this might require a visiting student to log-in to the OAA website with their WPI account credentials, this is expected by Internet users nowadays, and should not be considered a negative aspect.

Tutoring Services

Although tutoring services are indeed not actually offered by the Office of Academic Advising, but instead by the Academic Resources Center (ARC), tutoring services are something that should be available to students from an advising website. Every other website reviewed for this study referenced and provided information about the tutoring services available to students on the advising website. The OAA website should make it clear to students that the tutoring services are offered by the ARC, and give the appropriate information about the ARC and links to their website on tutoring services.

Also, if one were to consider the ARC website as a subsidiary of the OAA website, there are a few more things that should be included in the tutoring services information. Providing information about the general tutoring services may not be sufficient to students. Tutoring is a service offered that sometimes occurs outside of the OAA's regular business hours. Thus, if students are looking for information about the tutoring services after-hours, visiting the OAA will not be an option for them. All the information about the tutoring services should be made available to students online, such that they can access this information outside of regular business hours.

In regards to the extent of information about tutoring services, this has been addressed in the previous section describing the category. In brief, the information on the website should contain the pertinent details of the tutoring services, including who is tutoring, what is being tutored, which courses these sessions pertain to, when these sessions take place, and of course, where the sessions are being held. Going above and beyond, it would also be helpful to students to be able to search for tutoring services offered based on different search criteria, such as which course, certain subjects, and even certain tutors.

Summary of OOA Website Mandatory Content

All in all, WPI's OAA website included four out of eight total topics considered to be mandatory on an advising website. While this is actually the average number included across all seven schools surveyed, it still shows much room for improvement. Furthermore, it should not be that difficult to implement these changes and include the entirety of the mandatory content, as much of the information is already on the school's website, and simply needs to be referenced by the OAA website, such that students will be able to find it from this central starting point. Also, it would benefit both the OAA and the students in need of help if the ability to schedule individual counseling sessions online, or at the very least, provide an email address through which scheduling should be set up.

OAA Website — Additional Information

The additional content section of the competitive value analysis is the category where the OAA website scored the lowest out of all the websites reviewed. Out of the total seven criteria re-

viewed, the OAA website only included one of these sections. While most of the information the OAA website lacked in the additional information section can be found on other WPI websites, there should be links to this information on the OAA website to aid students who are looking for this information. Of the criteria in the additional information section, the OAA website only included the “Forms Download” criterion. For reference, the additional information section of the competitive value analysis for the OAA website has been replicated in Table 4.6.

Table 4.6: Additional Information criteria of WPI’s Office of Academic Advising website.

WPI	
Co-Op/Internship Information	
Undergraduate Research	
Study Abroad Information	
Graduate School Information	
Pre-Med/Pre-Law/Pre-Vet	
Career Planning Information	
Form Download	✓
Additional Information Score:	14%

From this overview of the additional information on the WPI OAA website, it can be seen that the website is lacking in the following six categories:

- Co-Op/Internship Information
- Undergraduate Research Information
- Study Abroad Information
- Graduate School Information
- Pre-Med/Pre-Law/Pre-Veterinary Information
- Career Planning Information

While there are resources available on campus and on the WPI website that have information about these various topics, there should be references to such information on the OAA website in order to complement the advising process.

Form Download

While the OAA website contains a “Form Download” section, it has been noted previously that this section could be improved upon by adding the ability to fill out and submit many of these forms online. It may be in the interest of a certain “green” committee at WPI to investigate this matter further, as there are probably numerous pieces of paper and similarly large amounts of man-hours used inputting these forms into a computer database, when they could be automated to everyone’s benefit.

OAA Website — Look and Feel

The look and feel of the current OAA website can be described as stale. Although there is not an overtly outdated feeling, a minimalist navigation scheme and absence of any graphics makes the website unwelcoming. In terms of the look and feel section of the competitive value analysis, the OAA website scored three out of the seven total criteria. A review of the OAA website's performance in the look and feel competitive value analysis is given in Table 4.7.

Table 4.7: Look and Feel criteria of WPI's Office of Academic Advising website.

	WPI
First Result in "advising" Search	✓
Consistent Format with ".edu" Domain	
Up-to-Date News Feed	
Frequently Asked Questions	✓
Ask a Question / Submit Feedback	
Academic Advisor Profiles	
Consistent Navigation Method	✓
Look and Feel Score:	43%

When performing a search on WPI's main website (<http://www.wpi.edu/>) for the term "advising," not only does the search results list the OAA website as the first match, it recognizes that you may be searching for an official office at the school, and gives a link to the OAA website separate from the regular search results. This feature was unique to WPI, and makes a visitor searching for the OAA confident they have found the correct place when they click on the link. However, after they navigate onto the OAA website's main page, there is a very dramatic formatting shift between the previous WPI website and the OAA website. While this is exacerbated by the fact that the main WPI website has been reformatted within the last month, it may be distracting to a visitor of the site, but not overly detracting.

Once a visitor has reached the OAA website's main page, there is a definite staleness that is apparent. In fact, from the date stamp in the footer of the website, it is clear that the main page has not been updated in over three months (at the time of this writing), and the content of the main page refers to "upcoming events" which have already come and gone. In fact, all of the content on the main page is outdated, and this is a discouraging thing to visitors to the OAA website. If a simple news feed that updates automatically is not implemented, it is important to at least have information on the main OAA website that does not refer to any specific dates or events in the near future or past. This will help alleviate the stale feeling a visitor gets when happening across outdated information.

One thing that the OAA website does not lack is Frequently Asked Questions. In fact, one might say that there are too many frequently asked questions, as almost every link in the navigation panel leads to another FAQ page. While these FAQs are helpful, if they are not presented in a clean and efficient manner, they become overwhelming, and almost burdensome to peruse to find any piece of information. While an FAQ does not need to be short, it should be clearly organized in certain categories of topics. Also, the answers to these frequently asked questions usually should be more than a one-liner. The answers given in the FAQs should aim to not only answer that one specific question narrowly, but also try to answer questions similar to this question in nature. A good example of a properly-presented FAQ can be seen on the

U.S. Copyright Office website (<http://www.copyright.gov/help/faq/>)[9].

The OAA website is lacking a specific place for website visitors to leave feedback about the OAA website or the OAA in general. This is helpful on a website as it allows visitors to the site to give feedback about a particular website, which in turn can alert the OAA staff that a certain page on their website is missing some information, or contains incorrect information. Giving visitors an easy way to submit feedback about the website smooths this process, and makes visitors more likely to actually submit feedback.

Even though the navigation scheme is nothing special, it is consistent and simple, which helps visitors know where they are while navigating the site.

4.3 Evaluation of Other Websites

The other websites reviewed in the competitive value analysis did give a good idea of areas where the OAA website could use improvement, but also certain things that the OAA website was doing correctly. In a general overview of the seven academic advising websites that were examined, there was a very wide range of names for the academic advising office, and there were a few instances where the academic advising was administered by another department altogether, as it appeared there was not a specific office or department that handled the academic advising for the school. Also, it seems that there is not always a clearly defined boundary as to where the office of academic advising should begin or end. A summary of results for the competitive value analysis for the comparison websites is as follows.

Rensselaer Polytechnic Institute — Overview

Rensselaer Polytechnic Institute is perhaps the university most similar to WPI. Being a small polytechnic school in the northeastern United States, it has many of the same qualities that WPI has. Thus, it was not surprising to see that RPI's advising website had many of the same features that the OAA website had. For example, the website had a very dated look, which is something the OAA website suffers from as well. Another negative aspect was that there was not a consistent way to navigate the website, and it was easy to get lost in the site after leaving the main page. However, the section on "Tips for advisors" was better than most other advising websites that were reviewed.

As far as the mandatory content was concerned, the RPI advising website had six out of the eight listed criteria. The only sections lacking in the mandatory content was information for first-year students, and information for family members of students. It is probable that information for first-year students is covered on an orientation website or orientation sessions conducted with all first-year students, but as previously mentioned, it should also be available on the advising website. Also, the information for parents and students' family may in fact be included in the school's Admissions Office website, but again, should be included on the advising website as well.

The RPI website scored similarly as well in the additional information category, with five out of the total seven categories being represented on their website. The only sections that were lacking in the additional information section were pre-professional program information, as well as links to downloadable forms.

In terms of the look and feel of the website, there is much to be desired by the RPI advising website. Out of all the criteria listed in the look and feel section, the RPI advising website

only included an FAQ. A search for “advising” on <http://www.rpi.edu/> yielded the RPI advising website as the fourth link on the search results page, and this was not even a link to the RPI advising website’s main page. A link to the RPI advising website’s main page was never actually located, and was finally found by manipulating the index of the page’s URL to the zeroth index.

Even with the shortcomings the RPI advising website had in the look and feel section, the content contained in the website was very sound and thorough, and consequently it received the third highest score of 68% in the competitive value analysis.

University of Rochester — Overview

The University of Rochester’s advising website was one of the better-looking advising websites out of the seven reviewed. There was a very nice organization scheme, and the navigation was easy to use. The content presented was very comprehensive, and the styling and design of the website was pleasing to the visitor. However, this website exemplifies the benefits of using a competitive value analysis for rating websites.

Due to the weighting system, it surprisingly did not receive a high score in the competitive value analysis. Even though the Rochester website had near-perfect scores in both the additional information and look and feel sections of the competitive value analysis, only four of the total eight criteria in the mandatory content section were present, and this had a profound impact on Rochester’s final score. In particular, there was no information for first-year students, parents and family of the student, information for advisors, nor course planning information.

Looking past the less-than-stellar score in the mandatory content section, there is not much to say about Rochester’s advising website in terms of the additional information or look and feel sections. The only thing lacking in the additional information section was career planning information, which undoubtedly could be found quite easily from a search on the school’s homepage. The look and feel section only lacked a mechanism to submit feedback about the website, or to ask a question. All of these things contributed to the University of Rochester receiving a score of 63% on the competitive value analysis, fourth highest among the schools compared.

Massachusetts Institute of Technology — Overview

The MIT website was perhaps the most disappointing of all the advising websites reviewed. Being such a prominent school, one would expect their advising website would be excellent. However, this was hardly the case. The website in general was very confusing, due to their “modern” approach to website design. Upon reaching the main advising page, it was not obvious where to begin looking for information due to the ambiguous category headings. Also, the content on the site was extremely verbose and long-winded in nature. Furthermore, the design of the website gave this author the feeling of it being highly disorganized, as it was difficult to get back to any particular page once it has been navigated away-from.

While MIT’s advising website was quite unique, it was still possible to find four of the eight criteria considered mandatory content. The missing information from this section included information for transfer students and transfer credit, information for parents and family of students, course planning information, and resources and assistance for students in academic difficulty.

The additional information section of the MIT advising website was even more lacking: only two of seven additional information criteria was present. The criteria that was present from this section was a plethora of undergraduate research information, as well as plenty of career planning information. While the additional information given was not very diverse, the two topics they gave had abundant information for visitors to the website.

The look and feel of the MIT advising website fared somewhat better, scoring four out of seven total criteria in this section. Two of the criteria missing from the look and feel section were an inconsistent format with the <http://www.mit.edu/> main school website, as well as a lack of any consistent navigation method, which was previously mentioned. The final weighted score of the MIT advising website was 45%, ranking it fifth among the seven websites reviewed.

Stanford University — Overview

The advising website for Stanford University was a very well-organized website. One of the distinguishing features of the website was a summary of the page's content at the top, appropriately named "**On this page:**" This was a feature reminiscent of the "Contents" page summary on many Wikipedia articles [10]. Also, each page on the Stanford advising site has a dynamic "Links" panel which gave helpful and appropriate related links to the content on the page.

The Stanford advising website scored particularly well in the mandatory content section of the competitive value analysis, with six out of eight criteria present. The only missing criteria were information for advisors, and information about assistance for students in academic difficulty. An exceptional feature was the ability for students to make appointments for a tutor online, via a login page.

The additional information section again saw little lacking on the Stanford advising website. Out of the seven criteria, only the ability to download forms was not found on the website.

The look and feel of the Stanford website was four out of seven total criteria. There was an inconsistent format with the <http://www.stanford.edu/> website, and the website lacked a Frequently Asked Questions section. Also, there was no profile information about the academic advisors. Due to these strong scores in all categories, the Stanford advising website received a score of 76%, making it the highest ranked of the seven websites reviewed.

California Institute of Technology — Overview

The Caltech advising website was very confusing. It appeared that all information labeled as "academic advising" was presented by the Office of Admissions and was all targeted towards prospective students to the school. There was little actually detailed information, and most of the website seems like a lengthy advertisement for the school. Even after further searching, it was unclear if this was the academic advising resource students have available to them, or if there is some other website that is only available to students through some means. All in all, it left much to be desired.

As far as the mandatory content was concerned, the only thing addressed out of all eight criteria was first-year students. This was one of the reasons leading to the questioning of whether this was purely an advertisement website for the school, or actually the real advising website.

Again, there was not much additional information offered on the website, but there were brief mentions of undergraduate research opportunities, graduate school at Caltech, and pre-professional information, although not much information was given on these topics.

If this in fact is the Caltech advising website, then the only criterion it fulfilled in the look and feel section was the fact that it was the first result in a search for the term “advising” on the Caltech home page. Also, the category of a consistent navigation method was not applicable to the Caltech website, as all the information was contained on a single page. Due to all these things, the Caltech advising website received a score of 21%, the lowest score in the competitive value analysis. This is assuming that it was, in fact, the advising website that Caltech students would actually use.

Virginia Tech — Overview

The final advising website reviewed was the Virginia Tech advising website. A notable feature of the Virginia Tech website was the ability to schedule appointments online for meeting with an advisor. However, there was some non-obvious terminology used on the navigation of the website, and the organization of the website was fairly confusing.

The mandatory content of the Virginia Tech advising website was the most impressive of all the websites reviewed. It fulfilled seven out of the eight categories in the mandatory content section. The only criteria lacking was the first-year student information, but as previously mentioned, this content is likely to be featured on a separate orientation forum for first-year students.

The additional information included on the Virginia Tech website included three out of the total seven criteria. The criteria missing included information on co-ops or internships, information on undergraduate research, graduate school information, and pre-professional information.

The look and feel of the Virginia Tech website was average. There were four out of seven criteria included in the look and feel section of the Virginia Tech website. The reason the website did not receive full marks in this section is because the advising website was not the first search result in a search for the term “advising” from the main Virginia Tech website. Also, there was no overt ability for visitors to the website to ask a question of the advising staff, or to submit feedback about the website. Furthermore, there were no advisor profiles included in the information on the website. However, given these few shortcomings, the Virginia Tech advising website received enough marks to warrant it a score of 73%, second place in the competitive value analysis of the seven advising websites.

4.4 Summary of Results

Performing a competitive value analysis on the seven different advising websites revealed valuable information about not only advising websites in general, but also about the WPI OAA website in particular. Out of the seven websites reviewed in the competitive value analysis, the OAA website received sixth place overall, ahead of only the Caltech website. This shows that there is definitely much room for improvement on the OAA website.

By splitting the criteria that the websites were judged on into three categories, it is easier to see which features of an advising website are more important than other features. The “mandatory content” of an advising website includes the information that the website is built

around, and these topics should ideally be included in every advising website. Furthermore, if an advising website has nothing else, if these mandatory content items are present and the content is decent, then the advising website has for all intensive purposes fulfilled its purpose. It can be seen that the best of the reviewed advising websites are strong in these fields, and this is expected. The “additional information” and “look and feel” sections are not as important as the mandatory content, but they contribute to the advising website as a whole. They should not be the main focus of the website, but should also not be overlooked, as they do have an effect on the experience of a visitor to the website, and can detract from the website if abused.

The rankings of the seven advising websites according to their score in the competitive value analysis are as follows.

1. Stanford University (76%)
2. Virginia Tech (73%)
3. Rensselaer Polytechnic Institute (68%)
4. University of Rochester (63%)
5. Massachusetts Institute of Technology (45%)
6. Worcester Polytechnic Institute (40%)
7. California Institute of Technology (21%)

Chapter 5

Recommendations

This chapter will detail the recommendations given to the Office of Academic Advising for ways to improve the effectiveness of the OAA website and to help the website achieve its purpose more fully.

5.1 Content Update

It has been determined that there are eight certain “mandatory content” that the OAA website should include. These items are the basis of the advising website, and without these items, the OAA website cannot fulfill its goal. Currently, the OAA website only contains information on the first four of these topics. The most pertinent matter to improving the OAA website is to ensure that all of these items are given adequate content coverage on the website. Also, since there is a heavy focus upon project work at WPI, particularly the IQP and MQP, there should be a section dedicated to these projects, which brings the number of mandatory content items to nine. The content items deemed mandatory are as follows.

- First-year Students
- Transfer Students/Transfer Credits
- Parents/Family of the Student
- Information for Advisors/Advising Resources
- Course Planning
- Academic Difficulty Assistance
- Individual Counseling/Academic Coaching
- Tutoring Services
- Projects (IQP, MQP, H&A)

Ensuring that each of these topics receive adequate content will immediately provide a drastic improvement to the overall quality of the OAA website. In fact, just including the missing

four items from the mandatory content would raise the OAA website's competitive value analysis score to tied for second place. Also, being able to provide comprehensive sample schedules from all majors will greatly enhance the course planning resources available to students.

The "additional information" section and the topics included in that section are also very lacking on the OAA website. The only thing included in the additional information section was a link to download certain forms. While there does not have to be a large emphasis on the additional information items, there should be easy access to this information from the main OAA page. The topics that should be included are as follows.

- Co-Op/Internship
- Undergraduate Research
- Study Abroad
- Graduate School
- Pre-Med/Pre-Law/Pre-Vet (Pre-Professional)
- Career Planning

While there does not need to be a substantial amount of novel content about these topics, there should at the very least be a link to another WPI website where students are able to find more information about them. Also, as is the case with the pre-professional information, there does not seem to be any substantial information about this topic on any WPI website. This should be addressed, and it might be the task of the OAA to compile and host this information on their website.

To increase the effectiveness of the online forms, the ability to complete and submit these form electronically. As previously mentioned, it may be in the interest of WPI to investigate this matter further, as there are countless pages of forms disposed of every day, plus the human resources required to input these forms into a computer database, when the system could be streamlined and all done electronically. Implementing such a process would also appeal to the "green" trend currently gripping society, and marketing this aspect of the website would undoubtedly get more visitors to the website out of curiosity alone.

There is much that could be improved upon in the "look and feel" of the OAA website. While it is not overtly offensive to the eyes, there are certain things that make the website less-than appealing. The aspects of the look and feel that need improvement are as follows.

- Up-to-Date News Feed
- Frequently Asked Questions
- Ask a Question/Submit Feedback
- Academic Advisor Profiles

While these are not areas that need immediate improvement, nor will they "fix" the OAA website in any significant way, they will promote the general feeling visitors to the site get, and will increase the affection visitors have for the site, improving the chances that they will return to the site for more help in the future.

As previously mentioned, the news feed will help the OAA website appear more up-to-date, and remove the stale feeling visitors currently get. Also, including profiles of the academic advisors will get students more comfortable when visiting the OAA in person.

The FAQ sections need revising. While these FAQs are helpful, if they are not presented in a clean and efficient manner, they become overwhelming, and almost burdensome to peruse to find any piece of information. While an FAQ does not need to be short, it should be clearly organized in certain categories of topics. The items should be under headings identifying these categories so that a particular topic will be easier to locate when a visitor is searching for it. Also, the answers to these frequently asked questions usually should be more than a one-liner. The answers given in the FAQs should aim to not only answer that one specific question narrowly, but also try to answer questions similar to this question in nature. As reference of a good FAQ exhibiting these qualities, see the U.S. Copyright Office (<http://www.copyright.gov/help/faq/>)[9].

Another item to be added to the OAA website is the ability to submit feedback or ask a question on every page. By specifically providing visitors to the website with a quick link to provide feedback or ask a question, the likelihood that they will do so dramatically increases. This will also benefit the OAA website in that it will give feedback about the website, and issues that need to be addressed can be fixed in a timely manner.

5.2 Use of Web Technologies

As far as the web technologies are concerned, these are not as important as adding the required content as indicated above. However, a few of these web technologies may prove useful in providing more immediate assistance to website visitors, as well as helping to improve the OAA website. Electronic form submission has already been discussed, and will not be repeated here.

While the instant chat feature may not be a necessity, it will give the website a more welcoming presence. Even if the information is contained in the website, being able to talk with a live person makes a visitor more comfortable with the OAA, and this will increase the chances of returning to the website in the future to use the services offered by the OAA.

Visitor counters again will be useful in maintaining a good OAA website, however they require a little more effort to effectively employ. By analyzing the traffic on the OAA website, it can be determined which pages are being visited most often, and from this, more effort can be directed toward improving or maintaining these pages. Alternately, from seeing how visitors navigate the OAA website, poor or ineffective pages can be identified, and improvements on these pages can be made. Also, by utilizing the feedback feature on each page in combination with the visitor counter, it can be determined how often visitors make comments and what prompted them to leave feedback. Ultimately, utilizing visitor counters will be an active way of optimizing the OAA website to its full potential.

5.3 Marketing of the Website

It is important to realize that just making structural and content changes to the OAA website will not benefit the community. Since the OAA website has not been overly helpful in the past, students have grown accustomed to disregarding it as not helpful and instead have sought

alternate resources to get help. As for incoming students who do not have this mindset, they are quite possibly unaware that the Office of Academic Advising exists altogether, and thus would naturally not seek information on the OAA website. A solution to both of these problems is a marketing campaign by the Office of Academic Advising to both change the mindset of students previously dissatisfied with the OAA website and to entice new students to see what the OAA website has to offer them.

There are many methods of advertising, many of which may or may not be effective. Numerous other organizations on campus actively use marketing tactics which seem to get their organization noticed. Being a technology institute, WPI has many avenues of communication with which the OAA can use to expose students to their website. Just getting the information out into the public is a good start to getting the OAA noticed.

A staple of communication at WPI is email. Email is a particularly useful tool for marketing the OAA website because it is accessed while a student is at a computer or Internet-enabled device. This cuts down on the activation energy required for a prospective website visitor to make the transition from the off-line world to the on-line one. The many weekly, monthly, quarterly, etcetera newsletters that students receive are all ways in which the OAA can get the OAA website into the minds and computers of students.

While printing and distributing paper pin-ups and posters around campus can be time consuming and costly, distributing email bulletins and recurring announcements in email and online newsletters to the WPI community will save time and money for another tactic of marketing.

Another marketing tactic is to provide the students with an incentive to get them to visit the website. The Student Government Association (SGA) at WPI has been doing something similar for the past two years. They offer free bowling passes to any student who comes to the SGA office during office hours and gives them a suggestion about what they would like to see the SGA do differently, or something SGA could do to make the campus a better place. This gives the students the incentive to visit the SGA office and contribute their opinions in exchange for a sort of reward. This has been an effective marketing tactic for the SGA, and the OAA can use a similar strategy in marketing the OAA website, and even the Office of Academic Advising in general.

The OAA could give students the opportunity to give a suggestion on how to improve the OAA website, or the Office of Academic Advising in general, in exchange for coupons they can redeem for a free game of bowling or a free scoop of ice cream in the campus center food court, for example. Doing so would get the students to spend even a small amount of time about how to improve the Office of Academic Advising, and will also show to students that the OAA is putting in effort to try to improve and appeal more to the students. The benefits from this is two-fold: it will get suggestions from the otherwise closed-mouth student body about how to improve the OAA, and it will also improve relations between the general student body and the OAA, putting the OAA in the minds of the students such that they will be more willing to establish communications with the OAA in the future should they need their help.

5.4 Summary of Recommendations

It must be reiterated that the most important and urgent changes to the OAA website are to add the missing mandatory content to the website. It must also be mentioned that adding content is not simply creating a lengthy FAQ about the topic. There should be written directives about

a certain topic, which can be augmented by the FAQs.

Secondly, the next most important thing would be to provide links to the additional information content. This is an easy way to improve the website, as it could simply be a page of links to this information on other WPI websites. On topics where there may not be sufficient information on other WPI websites, such as the pre-professional information, some more work may be involved. While the information is probably available from persons or literature at WPI, it may be a simple matter of typing this up into web content. Also, there are a few ways to improve the look and feel of the OAA website, including an up-to-date news feed on the OAA home page, as well as the ability for visitors to submit feedback about pages on the website.

Furthermore, the act of implementing these changes will undoubtedly make the OAA website more useful. However, the website will never actually get *used* unless students are informed about it. A marketing campaign to teach students about the website, as well as getting feedback on the website by using incentives such as free bowling or ice cream coupons can prove effective.

Finally, the maintenance of the OAA website demands constant attention, since the Internet is moving at such a rapid pace. If the website is allowed to stagnate without constant vigilance, the website will return to the state it is currently in, and this work will have been for naught.

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Appendix A

Competitive Value Analysis Matrix

Table A.1: Complete competitive value analysis of advising websites from seven universities.

	WPI	RPI	Rochester	MIT	Stanford	Caltech	VA Tech	
Mandatory Content	First-year Students	✓		✓	✓	✓		
	Transfer Students / Credits	✓	✓	✓		✓	✓	
	Parents / Family of the Student	✓				✓	✓	
	Information for Advisors	✓	✓		✓		✓	
	Course Planning		✓			✓	✓	
	Academic Assistance		✓	✓			✓	
	Individual Counseling		✓	✓	✓	✓	✓	
	Tutoring Services		✓	✓	✓	✓	✓	
	<i>Raw Score:</i>	50%	75%	50%	50%	75%	13%	88%
<i>[65%] Weighted Score:</i>	33%	49%	33%	33%	49%	8%	57%	
Additional Information	Co-Op/Internship		✓	✓		✓		
	Undergraduate Research		✓	✓	✓	✓		
	Study Abroad		✓	✓		✓	✓	
	Graduate School		✓	✓		✓		
	Pre-Med/Pre-Law/Pre-Vet			✓		✓		
	Career Planning		✓		✓	✓		
	Form Download	✓		✓			✓	
	<i>Raw Score:</i>	14%	71%	86%	29%	86%	43%	43%
	<i>[25%] Weighted Score:</i>	4%	18%	21%	7%	21%	11%	11%
Look and Feel	First Result in “advising” Search	✓		✓	✓	✓		
	Same Format as School Website			✓			✓	
	Up-to-Date News Feed			✓	✓	✓	✓	
	Frequently Asked Questions	✓	✓	✓			✓	
	Ask a Question/Submit Feedback				✓	✓		
	Academic Advisor Profiles			✓	✓			
	Consistent Navigation Method	✓		✓		✓	n/a	✓
	<i>Raw Score:</i>	43%	14%	86%	57%	57%	17%	57%
	<i>[10%] Weighted Score:</i>	4%	1%	9%	6%	6%	2%	6%
<i>Raw (unweighted) Score:</i>	36%	55%	73%	45%	73%	24%	64%	
Total Score:	40%	68%	63%	45%	76%	21%	73%	

Appendix B

Student Interview — Matthew Carey

The following is a summary of an interview with Matthew Carey, a student at WPI, about the current state of the Academic Advising website and some thoughts on how to improve upon the effectiveness of the website. The interview took place on April 2, 2009.

1. AIM widget on main page

Currently used by library successfully.

2. Disambiguation: first year students vs. prospective students

Much of the information currently on the “First Year Students” page is only useful for prospective students.

3. Transfer students

Ibid. Most of the information is pertinent to students who are going to transfer to WPI.

4. MASH - no schedules available

The only place MASH schedules are posted is on the door to MASH, which is inconvenient. Work with JoAnn to not only have the general information about MASH (where it is, what it is, etc.) but also when it is (i.e. schedules of when they can get help).

5. Make long FAQ pages more “flashy”

6. Faculty advisor category

Have a few “floating advisors” that students can sign up to meet with online

Link for students to find advisors for IQP, MQP, sufficiency (or whatever it’s called now..)

7. Feedback - hybrid between AIM and email

8. Marketing campaign - coupons for free bowling/ice cream

9. Contact me

People in charge of advising process for each department

Picture or something

10. Require students to log in to advising website

Show advisor's picture, personal information, etc.

(web development will hate me for this probably)

11. Link to/promote WPI scheduler

Advertise as a resource available to students, created (and maintained) by students

Possibly host the software for the developers on Advising site (during peak registration times, current hoster crashed his server multiple times from high demand of the software)