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USABILITY EVALUATION
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2 EXECUTIVE SUMMARY

A comparative analysis was conducted between Digication and its analogous, indirect, parallel, and partial competitors: P2PU, CodeAcademy, Desire2Learn, traditional physical portfolios, Wordpress, Behance, and Ctools. Each site was evaluated using selected criteria on a scale of one to ten, and were then mapped on a series of spider charts to highlight how Digication compares to its competitors. The criteria were selected after consideration of the functionality of Digication as well as the points of interest established during interviews and surveying.

Key findings:

- Compared with other systems, it is difficult to login to Digication, particularly for students who are no longer in the PEP class.
- Portfolios created in Digication are not as professional as those created in competitor systems.
- Comparatively, both the portfolio and course management functions in Digication are not intuitive and are hard for new users to learn.
- Digication's method of uploading content is not intuitive and is unnecessarily complicated.
- Digication does not have much flexibility in how portfolios are created, which produces unoriginal end products.

Based on these findings, we generated actionable recommendations that would support user goals and improve the overall user experience. Moving forward, we will use the information gleaned from this process to inform further studies.

3 INTRODUCTION

This report describes the process, results, and relevant interpretations of an investigation of Digication as it compares to a series of relevant competitors for the services that Digication provides.

Digication is an online platform for the creation of student portfolios. Digication contracts its services out to academic institutions, whose students are able to use the site to create a personal portfolio and showcase their work. In addition, Digication can also function as an online course management system.

The Career Development Office (CDO) of UMSI requires their Masters students use Digication to satisfy their Practical Engagement Program (PEP) course requirements over the duration of students' internships. The course curriculum consists of two main components: a public facing portfolio where students document their internship work, and reflective, written assignments submitted to the course instructor. By completing the PEP course curriculum online concurrently with those internships, the CDO is able to track students' progress and the students are therefore able to receive credit. PEP uses Digication's assignment grading, discussion forums, and the aforementioned portfolio creation functions.

In this comparative study we hope to shed light on how Digication compares to its competitors. We show areas where Digication needs to improve, as well as provide actionable means for improving upon these areas. We will accomplish this by comparing Digication to other online course management and portfolio systems using the following criteria: ease of peer to peer interaction, ease of peer to instructor interaction, ease of uploading content, ease of learning the system, visual appeal, professionalism

confidence index (in other words, how likely a user would be to use the site in a professional context), uniqueness/customizability, degree of mediation (how specifically are the tasks dictated by the the instructor/mediator), and ease of access.

4 METHODS

The following comparative analysis was conducted from the perspective of the user: that is, UMSI students, and not the administration (CDO). For our comparative analysis, we identified competitors and alternatives to Digication according to our notes from stakeholder and user interviews. When conducting a comparative analysis, it is common practice to investigate a variety of different levels of competition:

Direct Competitor: A direct competitor provides the same services, in the same market, via the same channel. There are no direct competitors for Digication as it is a university chosen and mandated system. Hence, the users do not have an option to use an alternative system, which might be deemed as a direct competitor.

Partial Competitor: A partial competitor provides services to the same markets in the same way, but the services provided are not exactly the same. In the case of Digication, both Ctools and Wordpress would be partial competitors. Both are online and offer one, but not both, of the components offered by Digication.

Indirect Competitor: An indirect competitor offers similar products but through different channels. For Digication, an indirect competitor would be a paper resume or traditional physical portfolio created during a capstone class.

Parallel Comparison: A parallel comparison is conducted against a system (parallel system) which offers a similar product, via similar methods, but for a different consumer base. However, each could learn from the other to possibly improve their services. In the case of Digication, a parallel system would be D2L; it offers similar services but is offered through a completely different school.

Analogous System: An analogous system is a non-competitor that offers different services from the primary system, via similar methods. By comparing analogous systems, insights can be gained in how to improve services even though the product is different. For Digication, analogous systems would be P2PU and CodeAcademy.

We looked at each system individually and ranked the criteria on a scale of 1-10. For each criteria, the scale was as follows:

Criteria	1	10
Ease of Peer to Instructor interaction: How easy it is for students and instructors to communicate with each other: forum posts, email, etc.	Hard	Easiest
Ease of Peer to Peer interaction: How easy it is for students to communicate with each other: forum posts, email, etc.	Hard	Easiest
Ease of Uploading Content: How easy it is for users to upload any kind of content to their portfolio or assignments.	Difficult	Super Painless
Ease of Learning System How intuitive the system is to learn and how much support does the system provide to help users learn the system.	Not Easy	Easy
Visual Appeal Level of visual appeal in portfolio created.	Ugly	Beautiful
Professionalism Confidence Index: Level of the professionalism of the portfolios produced in the system.	Not Professional	Professional, good to show to potential employers
Uniqueness: Uniqueness of portfolio created in the system compared to other portfolios created in same system.	Least Unique	Very Unique
Ease of Access (back end): How easy it is for users to log into the system and to access their portfolio to edit.	Hard to Access	Easily accessible

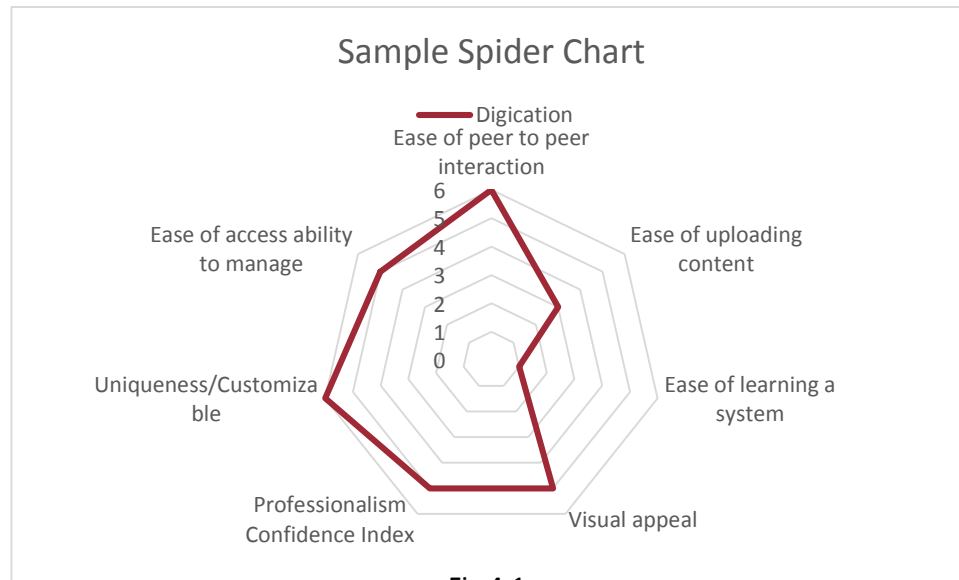


Fig 4.1

Each site was scored on a scale of 1-10 and spider charts were created for visual comparison. [Fig 4.1] A spider chart is a diagram where each criteria is assigned an axis and then the value of the criteria is plotted on the chart. When overlapped with one another, spider charts form unique shapes that illustrate the strengths and shortcomings of compared systems. We created three overlapping spider charts: the first compares criteria related to portfolio creation, the second compares criteria related to the course management system, and the third compares all criteria (see Appendix 8.1). In general, larger shapes indicate systems that have scored higher in selected criteria against those with smaller shapes.

5 FINDINGS AND RECOMMENDATIONS

5.1 FINDING AND RECOMMENDATION #1

5.1.1 Finding: Compared with other systems, it is difficult to login to Digication, particularly for students who are no longer in the PEP class.

There are several reasons why the process of logging into Digication is difficult. First, the login process changes for students who are currently taking the PEP course once they complete the PEP course, but this change is not communicated to students. Current students log in through umichsi.digication.com, whereas former students must login via the UMSI intranet. This results in problems: former students trying to return to their Digication accounts via umichsi.digication.com (a path that is familiar to them) are denied access.

Additionally, new users who arrive at the UMSI Digication homepage cannot create their own account. The homepage does not include a “create an account” feature, which differs greatly from competitors as well as user expectations.

Compared with other online university systems at the University of Michigan, logging in to Digication is especially laborious. Signing into one university service usually allows the user to sign into other

university services without having to re-enter login credentials. For example, logging into Wolverine Access automatically logs that user into CTools. Digication, despite being a university service, requires users to re-enter their login credentials, and, this results in unnecessary extra steps.

5.1.2 Recommendation#1: Link Digication to other UMich services

Since users already use their UMich credentials to log into Digication, link Digication's login process to UMich, so that logging in to any one university service allows them to log in automatically into Digication. This will remove extra steps and remove impediments for students to use Digication.

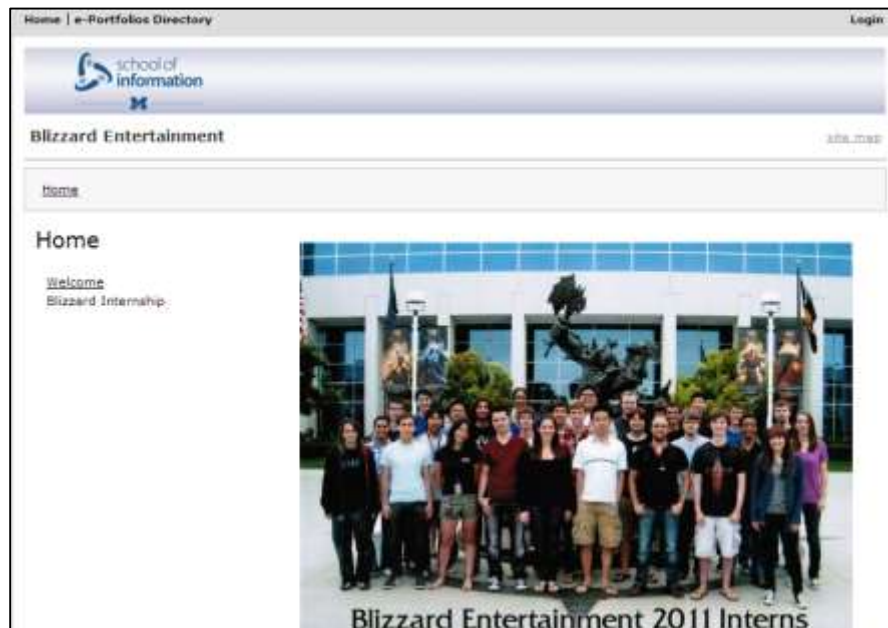
5.1.3 Recommendation#2: Allow all students to log into the system in the same way.

Competitor sites do not make distinctions between users in their login process, and Digication should not either. All UMSI students who have taken the course or who are currently taking the course should be able to log into the system through the Digication home page.

5.2 FINDING AND RECOMMENDATION #2

5.2.1 Finding: Portfolios created in Digication are not as professional as those created in competitor systems.

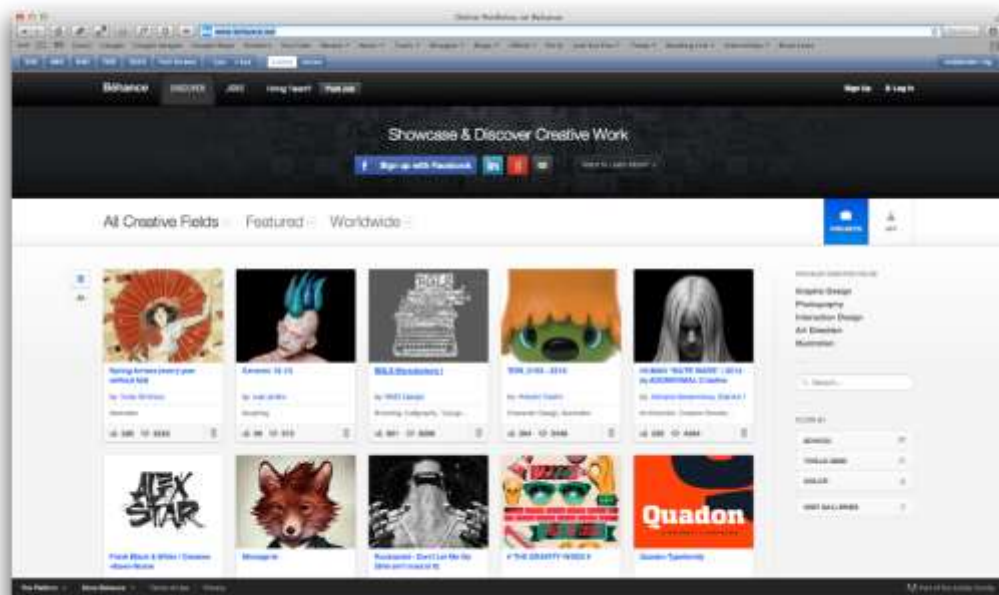
A goal of Digication is for students to showcase their work to colleagues and to prospective employers. However, as discussed in previous reports, many of Digication's UMSI users do not feel comfortable showing their portfolios to others. This might be a result of the level of professionalism of the portfolios produced by Digication.



www.umichsi.digication.com

Behance & Digication are very similar in that they are both fairly inflexible when it comes to users' ability to control portfolio layout. However, because Behance is presented in a much more visually appealing

way, it has a very strong following and user network. Do not underestimate the power of a strong visual design. With this one dimension, Behance is able to outdo Digication tenfold.



www.behance.com

The Digication gallery only allows for very small thumbnails with name, and school association. It is also shows when users last updated their profile-other sites do not do this. The URL for each portfolio is also unprofessional because it is not particularly customizable when compared to other portfolio sites.



www.umichsi.digication.com

5.2.2 Recommendation#1: Improve the Gallery

Digication can make a number of changes to the front gallery that would go a long way to improving the professionalism of the site. First enlarge the image for each portfolio and minimize the amount of text shown, like in the Behance gallery. This will give more graphically inclined users the feeling that their work will be showcased in the gallery. Second, remove the “last updated” tag. The date a user has last updated the site does not reflect the quality of the work displayed. Moreover, it will influence prospective employer’s perception of a users’ work ethic, in not a good manner.

5.2.3 Recommendation#2: Improve visuals in the portfolio itself

Digication needs to update the look and feel of the portfolio to make it look more modern. This can be done in two places: font and themes. To compare favorably with their competitors that are more design-friendly, Wordpress and Behance, allow users to have greater access to themes that provide customization and compatibility to user’s portfolio needs. For instance, some users need/want more image heavy layouts, some might need to showcase more written content. Try to include brighter fresher colors and cleaner layouts with more visual hierarchy. As to the font, Verdana typeface should be avoided, since it’s reminiscent of less modern web-pages. Allow users to change fonts more easily such as incorporating Google typeface, Typekit, or FontDeck support.

5.2.4 Recommendation#3: Use URLs that feel more “professional”

When you create a free Wordpress account (hosted through wordpress.com) the url will be yoursitename.wordpress.com. Digication should adopt a similar standard for URLs. This will make the user feel like their own name is more visible and thus more likely to be remembered. In addition the word “published”, which appears at the end of each portfolio URL, should be removed.

5.3 FINDING AND RECOMMENDATION #3

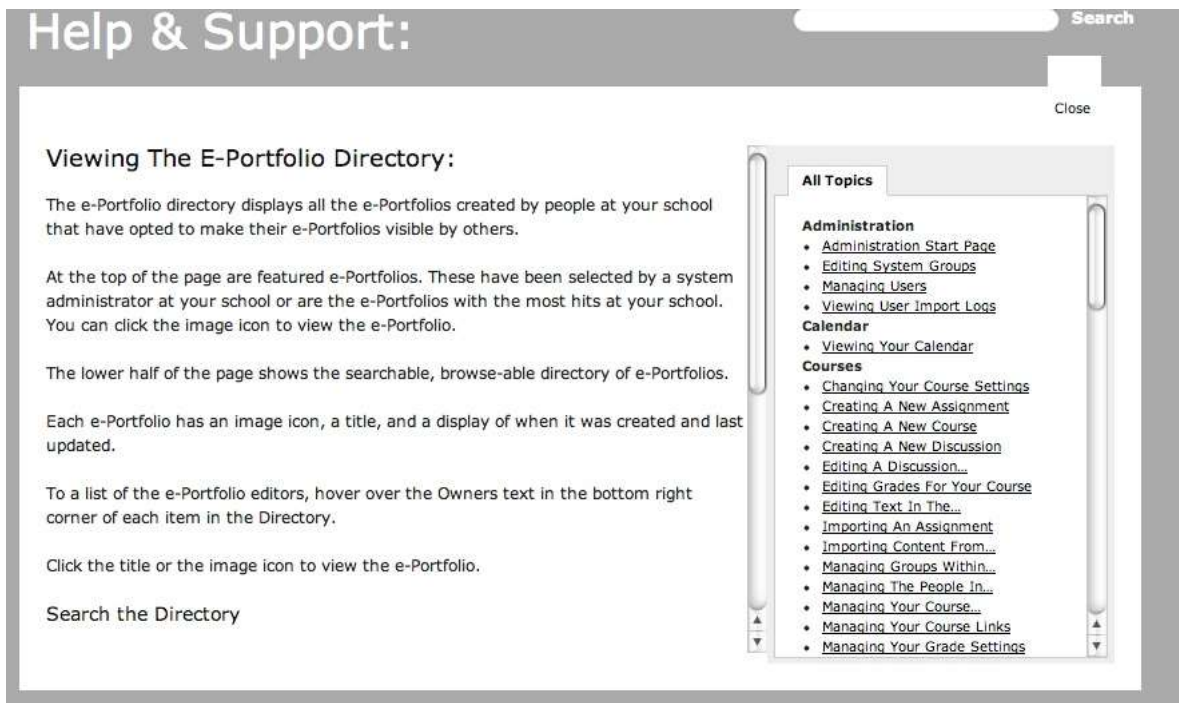
5.3.1 Finding: Comparatively, both the portfolio and course management functions in Digication are not intuitive and are hard for new users to learn.

Digication suffers from poorly constructed ontology and choreography, both of which deviate from best practices of other sites. In this circumstance, ontology refers to an agreed definition for a shared conceptualization, which gives rise to a common vocabulary and taxonomy for a distinct domain. [\(Gruber 1993\). "A translation approach to portable ontology specifications" \(PDF\). Knowledge Acquisition 5 \(2\): 199–220. Choreography refers to the prescribed steps needed for a certain process.](#)

For example, other sites, including those we compared, used the phrases “upload media” or “upload image”, “widget”, or “element”, Digication uses the term “module”. This term is different from users’ mental models and expectations, which makes producing a portfolio harder to learn.

On the course management side, Digication uses a color coding system to let students know if they have turned in a assignment and if it has been returned. This is a system that users have to learn and that users have indicated adds confusion rather than clarity. Ctools on the other hand uses a system of submitted and returned. These are concepts, and terms, that do not need to be learned.

Digation's HELP function is also not in line with their competitors' best practices. While the HELP page does change based on what page you are currently on, the HELP feature menu is too long and in alphabetical order. The menu also does not show topics related to the page you are on (except when you are editing your portfolio). Users have to take the additional step of clicking related topics to shorten the menu, and this option is not always available. This forces users to scroll down to the section they need. The menu also violates Grice's maxim for politeness by overloading the user with information.



www.umichsi.digation.com

5.3.2 Recommendation#1: Modify the language

Digation should change the language to make it more in line with industry practices. The term upload content/media should be used as much as possible when describing such a process. The color coding system for tracking assignment should also be replaced with written vocabulary.

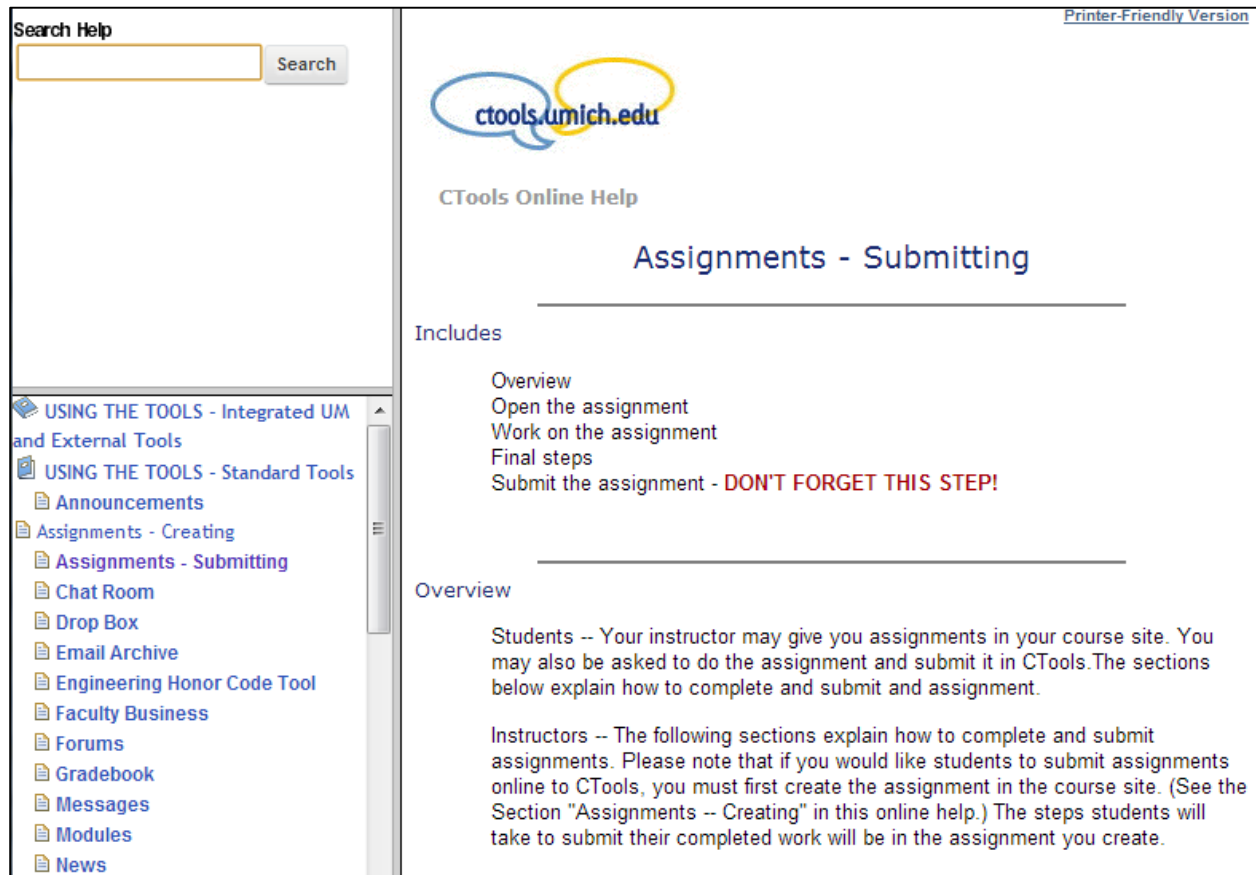
5.3.3 Recommendation#2: Improve the Help Features.

Change the help menu so that the initial menu only provides the broad topics, like Wordpress does.



www.wordpress.com

Those menus can be made expandable like Ctools does so users can use the menu to find what topic will be most useful. The HELP feature should also provide more step by step instructions that contain screenshots of the actions being taken. Digication can also take a page from Behance and provide popup tutorial hints for first time users (or until users click the pop ups off)



www.ctools.umich.com

5.4 FINDING AND RECOMMENDATION #4

5.4.1 Finding: Digication's method of uploading content is not intuitive and is unnecessarily complicated. Our analysis revealed that unlike its competitors, Digication's process for uploading content is non-intuitive and difficult to follow. Moreover, our survey results indicated that all of the users make use of the uploading feature present in Digication to either upload visual or written content. A high priority for users, this feature should have been intuitive and easy to follow. But unfortunately, this is not true. The language used to represent the feature of uploading is unclear and misleading. Instead of using the simple terms like "upload" or "create page", terms like "Add a module" have been used. To further complicate things, even after you add a module, you have to save the module and then press the "Publish" button to finally upload the content. Hence, this process of uploading content on digication is unnatural and unintuitive and therefore, is conflicting with the existing user mental models.

The screenshot shows a web interface for UMSI Digi[cation]. At the top right, there are two buttons: "Add A Module" with a green plus icon and "Publish This Page" with a green checkmark icon. Below these, there is a row of four buttons: "View Text", "Edit", "Publish", and "Delete". A red banner across the middle of the interface contains the text "DRAFT: This module has unpublished changes." Below the banner, a green box displays the text "This module was last edited on Mar 23, 2013 at 12:29 PM". At the bottom left, there is a "Save" button with a green checkmark icon.

www.umichsi.digication.com

5.4.2 Recommendation#1: Use common vocabulary

Instead of using terms like "Add a module", terminology should contain words which are easily understood by the users and which are already being used by successful competitors. Through our analysis we arrived at the decision that for uploading the content terms like "Upload" or "Add Media" work much better. Moreover, since "Add a module" is not restricted to only uploading visual/written content, it should be named something which explains all of its functionality. Our research says that the term "Widget" will be a better match and will be more easily understood by the users as it is being used by many of the big competitors.

5.4.3 Recommendation#2: Incorporate popular upload features

Features like "drag and drop content on the upload box" and select "multiple files for upload" are being commonly used by most of the competitors. Hence, the absence of these ubiquitous upload features on digication might add to users' dissatisfaction with Digication.

5.5 FINDING AND RECOMMENDATION #5

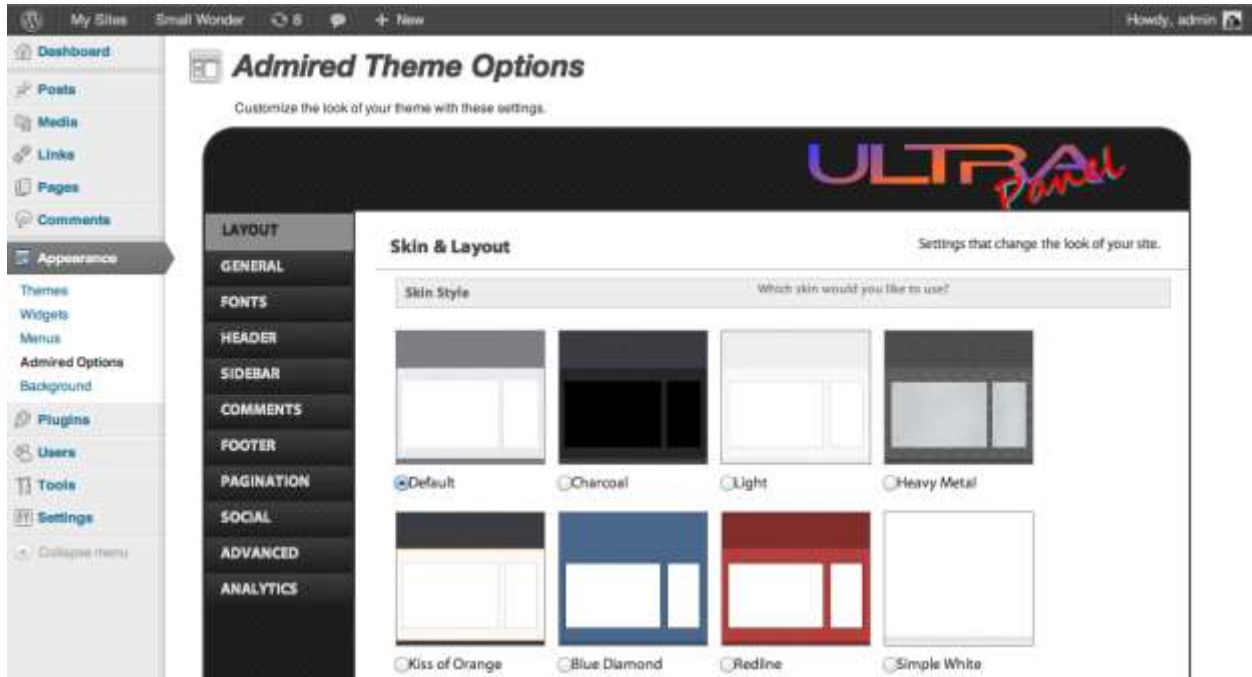
5.5.1 Finding: Digication does not have much flexibility in how portfolios are created, which produces unoriginal end products.

In comparison to its competitors, Digication's portfolio creation platform is rigid and has limited customizability and theme options. Our interview data confirms this claim, as users described Digication portfolios as "cookie cutter" and "inflexible". Furthermore, there is only one theme which is available to the UMSI students. All the created portfolios look almost the same, with slight variations in color and images. In contrast, Wordpress has the option of choosing from the hundreds of themes, available in its database (though some of these themes are paid).

In addition, Digication portfolios are heavy on text and lack creative content. Hence, the individual personalities get drowned in these text-heavy portfolios and fail to surface. Moreover, since the digital portfolios are derivatives of traditional portfolios, hence, they should also allow endless opportunities for flexibility and creativity to showcase work. But unfortunately, Digication lacks the ability in doing the same.

5.5.2 Recommendation#1: Allow more themes for users to choose from

Our analysis says that one of the reasons for the competitor portfolios being more unique and personalized is because of the option of choosing from many available themes. Moreover, these themes are customizable in terms of layout, color, fonts and other styles [see fig. below]. Hence, Digication should also give multiple theme and their customization options to UMSI in order to eradicate the problem of portfolios being “cookie cutter”.



www.wordpress.com

5.5.3 Recommendation#2: Allow user to display his/her own name in the gallery/landing page

The gallery/landing page of the Digication portfolio system should be modified to make it personalized to the users. The competitors of Digication allow the users to have their name displayed in the gallery. Moreover, the users in these competitor websites can choose the text to be displayed on the gallery pic. Whereas, in Digication, the gallery display contains a small organization thumbnail and few other unimportant details, completely ignoring the user identity.

6 DISCUSSION

While being confident about our results we have a number of possible issues that might limit the effectiveness of our evaluation.

We had a sample bias because the competitors we chose for Digication were limited to those our client had told us about as well as those we were personally familiar with. We also only based our analysis on the websites themselves and did not use any service we did not have complete access to. We were therefore unable to analyze **Folio Tek**, one of the competitors mentioned by our client. As a result of this limitation, our comparison outcomes were probably not as comprehensive as they could have been

had we examined more resources, such as product reviews in newspapers and magazines and academic articles about course management software.

We also decided not to take cost into account as a factor for our criteria. We partially decided to do this because while “free” Digication, Ctools and D2L are all used within the context of taking classes at a university and so we were not sure how to judge their true cost.

Digication is also a system we are very familiar with including its shortcomings. We tried to account for this bias in our scoring but we understand it is impossible to eliminate that bias completely.

7 CONCLUSION

We were successfully able to draw a number of important findings from this comparative analysis. First, we discovered that compared with other systems, it is harder to log into Digication. It would be best to allow all users to log in through the same site and to allow users to login via the UMich credential system.

Next, Digication scored low on our Professionalism Confidence Index. Digication can remedy this by improve the visuals of the site and creating a more personal URL. In addition, Digication was not as easy to learn and the help section was not as helpful. Changing Digication’s ontology and reformatting the help menus will go a long way to remedy this deficit.

More specifically, uploading content in Digication is difficult and unnecessarily complicated. Digication should again change its ontology as well as incorporate popular upload features, like drag and drop.

Finally, Digication was ranked poorly in its ability to create unique portfolios. Digication should allow users more choices of themes.

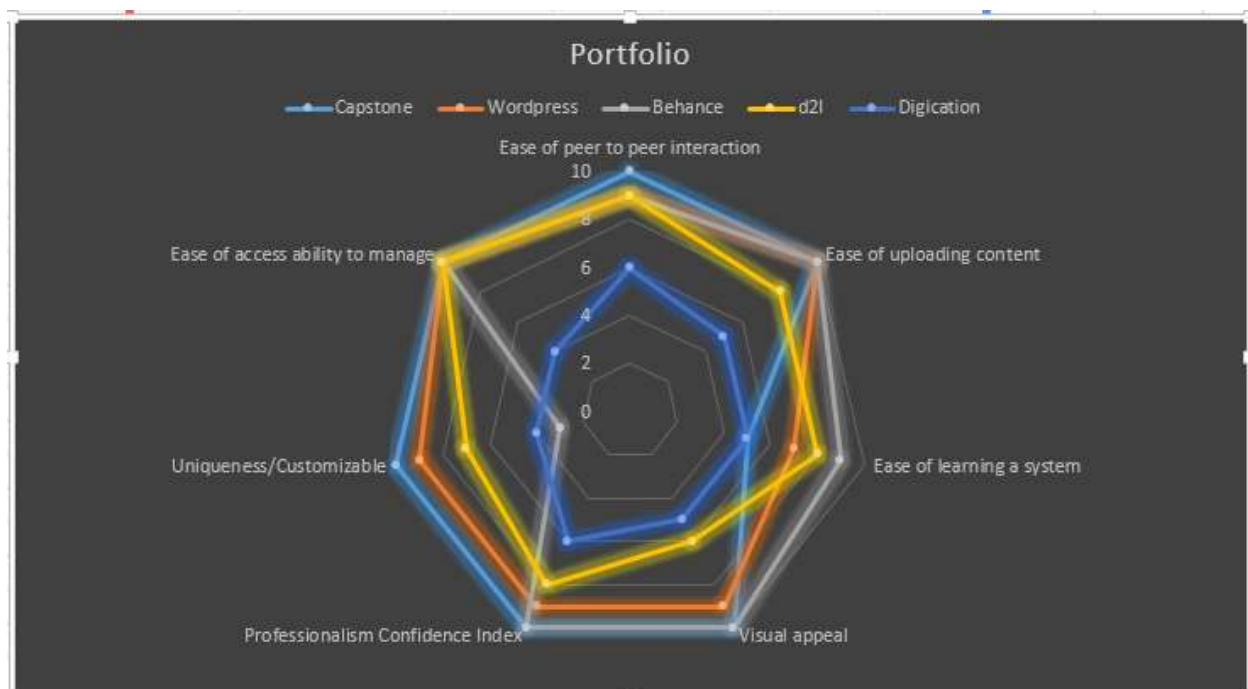
As previously noted, this report and its subsequent recommendations are subject to certain limitations, particularly in regards to the limited number of competitors evaluated. However, we feel our data represents a realistic analysis of Digication that will direct us in our future investigations.

8 APPENDIX

8.1 COMPARISON CHART AND SPIDER GRAPH

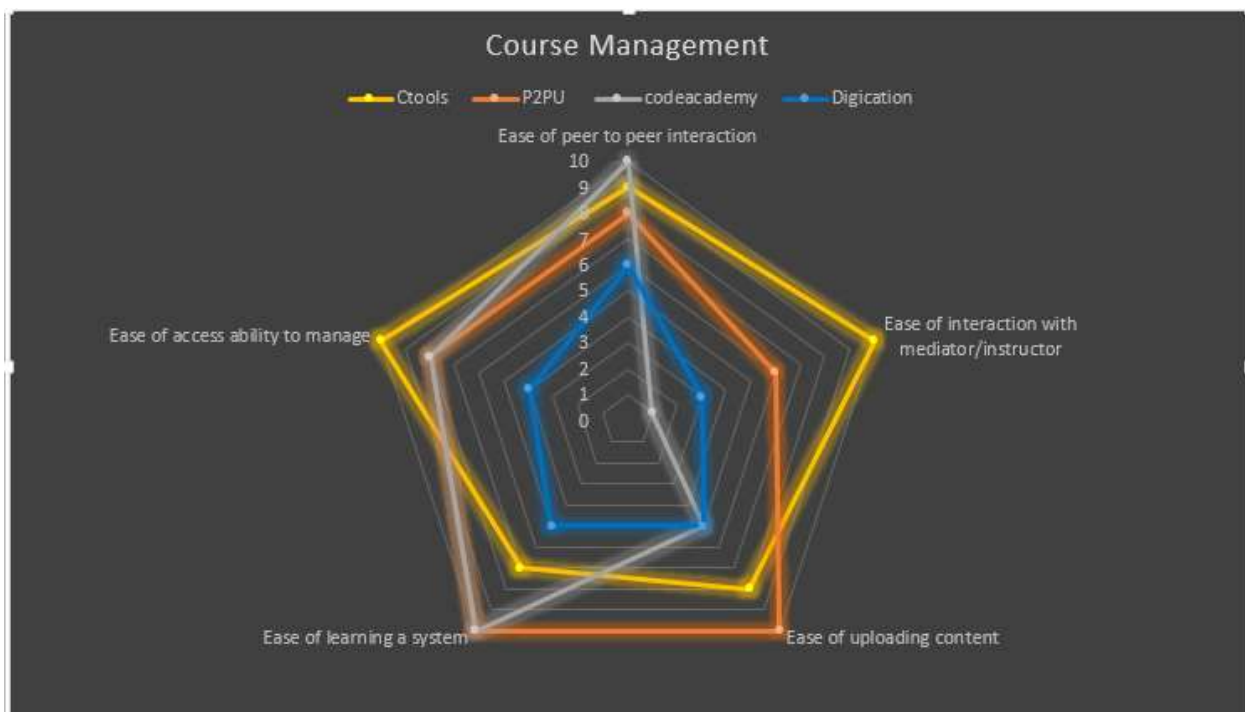
8.1.1 For Portfolio side of Digation

	Ease of peer to peer interaction	Ease of uploading content	Ease of learning a system	Visual appeal	Professionalism Confidence Index	Uniqueness/C ustomizable	Ease of access ability to manage	Median
Capstone	10	10	5	10	10	10	10	10
Wordpress	9	10	7	9	9	9	10	9
Behance	9	10	9	10	10	3	10	10
d2l	9	8	8	6	8	7	10	8
Digation	6	5	5	5	6	4	4	5



8.1.2 For Course Management side of Digation

	Ease of peer to peer interaction	Ease of interaction with mediator/instructor	Ease of uploading content	Ease of learning a system	Ease of access ability to manage	Mean
Ctools	9	10	8	7	10	8.80
P2PU	8	6	10	10	8	8.40
codeacademy	10	1	5	10	8	6.80
Digation	6	3	5	5	4	3.80



8.2 COMBINED SPIDER GRAPH

[Some spider lines are missing, because all the categories are not applicable for each competitor]

