UX Evaluation of the University of Leeds Minerva

COMP2811 User Interfaces
Coursework 1

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October 19, 2017

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1. Introduction

1.1 Intro

Minerva is a web application that features course management tools which merge the old university portal and virtual learning environment together offering a full service to students needs from email, to Student Services and more. The purpose of this document is to evaluate the user experience of the University of Leeds Minerva system by approaching the UX with a heuristic and cognitive walkthrough. This includes the perspective from a first time user of the application with no previous experience with the website. Aspects that involve specific roles such as being a instructor and creating a module section will not be included. All aspects besides SSO login are considered during this assessment review of the Minerva application in order to better understand the application. This report will provide a detailed evaluation of positive and negative features as well as critiques of Minerva for further improvements within the application.

2. Evaluation

The heuristics chosen to be for this evaluation of Minerva are listed below. These huestics were chosen to highlight important areas of user experience that should be followed in a system such as Minerva.

1. Visibility of system status	6. Flexibility and efficiency of use
2. User control and freedom	7. Aesthetic and minimalist design
3. Consistency and standards	8. Help users recognize, diagnose, and recover from errors
4. Error prevention	
5. Recognition rather than recall	9. Help and documentation

Along with the heuristic evaluation will follow a cognitive walkthrough. The walkthrough will consist of a scenario where the user's task is watching a previously recorded lectures on an enrolled module. Throughout the walkthrough the user will be asked a following list of questions and to evaluate on current aspects of the Minerva application.

3. Results

3.1 Hueristic
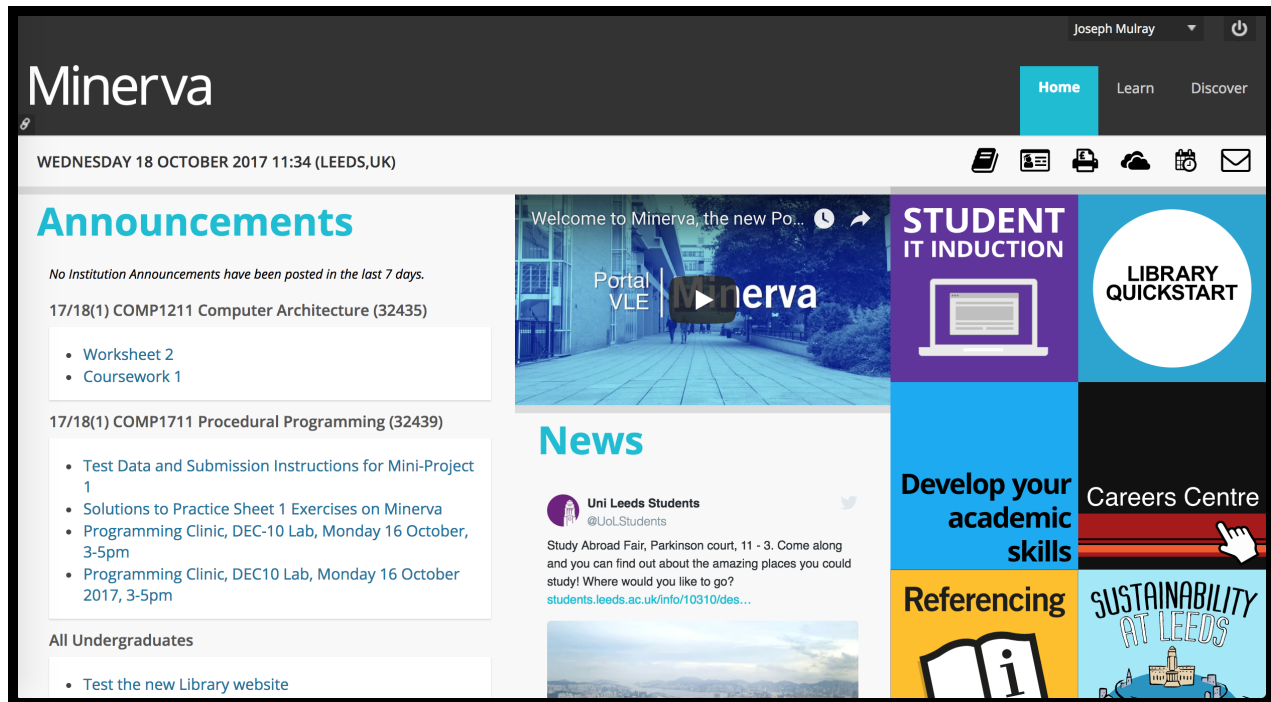
(*Image 1*, Home screen)

Details:

 Upon logging into Minerva the user is presented with a screen shown in *Image 1*. The problem with this design is the user is constantly clicking the *Learn* tab. Since there is no way to personalize or customize the default landing zone as a user this results in an inefficient use of time. To constantly land on a page and directly navigate to another is often a tedious process that should be avoided. Along with the issue of the home screen, there is a lack of aesthetics and minimalist design. This is shown by providing Twitter feeds and tile like shortcuts with no way of removing or hiding these services. Thus making the design inefficient to most users.
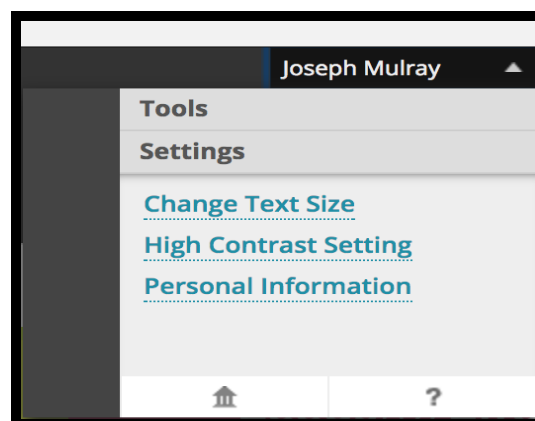
Details:

 The visibility of the system to directly report feedback was a successful area. As a user, this was extremely useful when navigating through the different sections such as *Home, Learn,* and *Discover.* The color coordination of the page change made it clear that there was a navigation taking place and showed a positive design aspect in the visibility of the system status.
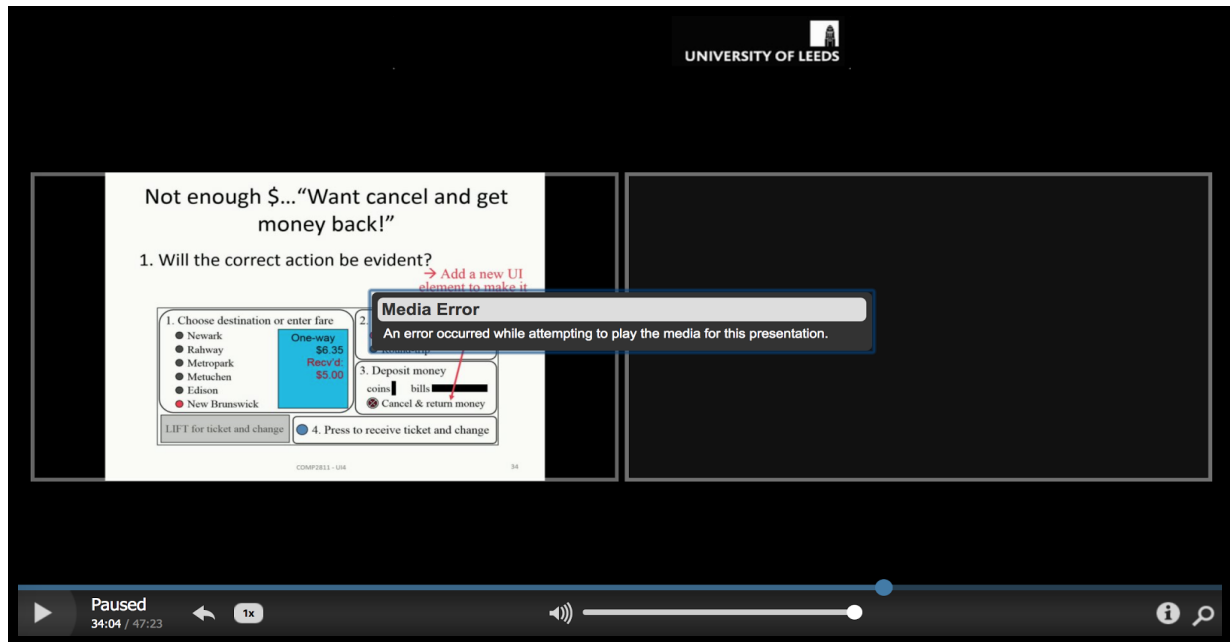
(*Image 2*, Media Error on Minerva VLE)

Details:

Error prevention was present in the system but failed to help the user recognize and recover from errors. In an instance when an error was caught on a recorded lecture, a pop up box notified the user that an error had occurred. This error however, failed to report steps to fix this error as it was unclear if the user was supposed to wait for the error to be fixed, refresh the page, or take other steps needed the resolve this issue. *Image 2* above depicts the errors and does not provide any information to resolve this error to a user.

(*Image 3*, Menu option top right hand corner)

Details:

As a hub for a student platform the information present in this case about the current user was insufficient by only providing the user's first name, which can be seen in Image 3. This leaves out information that can be extremely beneficiary such as the user's University ID and major that are not directly present and require to go to a different service to view any detail about the user. As Minerva aims to be a one stop shop for students it is important that the information provided to them may be present and accessible. Minerva fails the heuristic flexibility and efficiency of use.


(*Image 4*, Showing highlighted *Learn tab* with module navigation on left side)

Details:

When a user clicks on an enrolled module there is often confusion on how to get back to the previous screen. While all the navigation is present on the left side to actually return back to the page before with all the modules listed, the user must press on the already highlighted *Learn* tab again. The highlight of the *Learn* tab makes the user think he or she is already present on this page. This creates confusion on how to actually navigate back to the *Learn* dashboard. This is an incident that is very confusing to the user and fails both aesthetics and efficiency use of heuristics.

Details:

As shown in I*mage 4*, the left menu navigation for a module fails to highlight what has been selected. The navigation only displays a header bar at the top (eg. Announcements in Image 4), but does not highlight the option selected under the menu navigation. This is an area where a user can quickly lose track and creates unnecessary confusion for the user; failing visibility of system status for no highlighted changes.
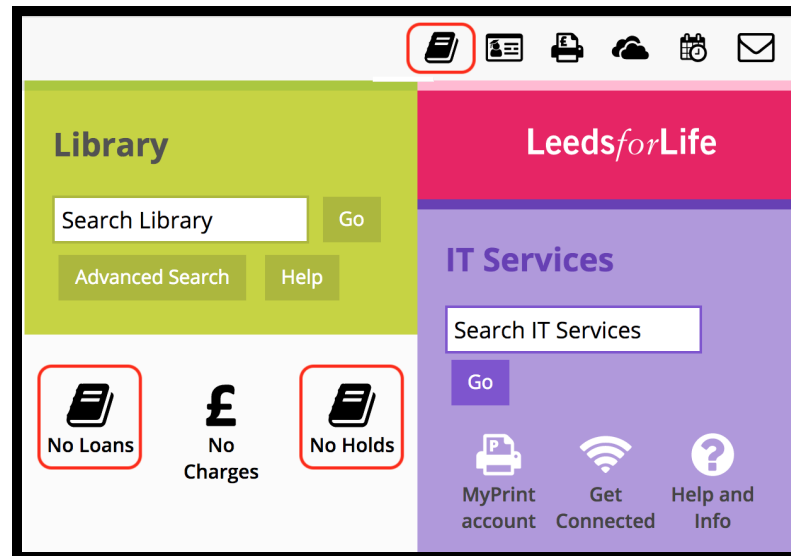
(*Image 5*, Reuse of Icons)

Details:

      Throughout the UX of Minerva, the reuse of icons in the application causes confusion with the user. *Image 5* shows the reuse of the Book icon several times each with a different functionality, which is an aesthetic issue that can create uncertainty for application users.

3.2 Cognitive Walkthrough

      Scenario: Watch previously recorded lectures on an enrolled module. In this case it will be a recorded lecture from COMP2811 User Interfaces.

Step 1:
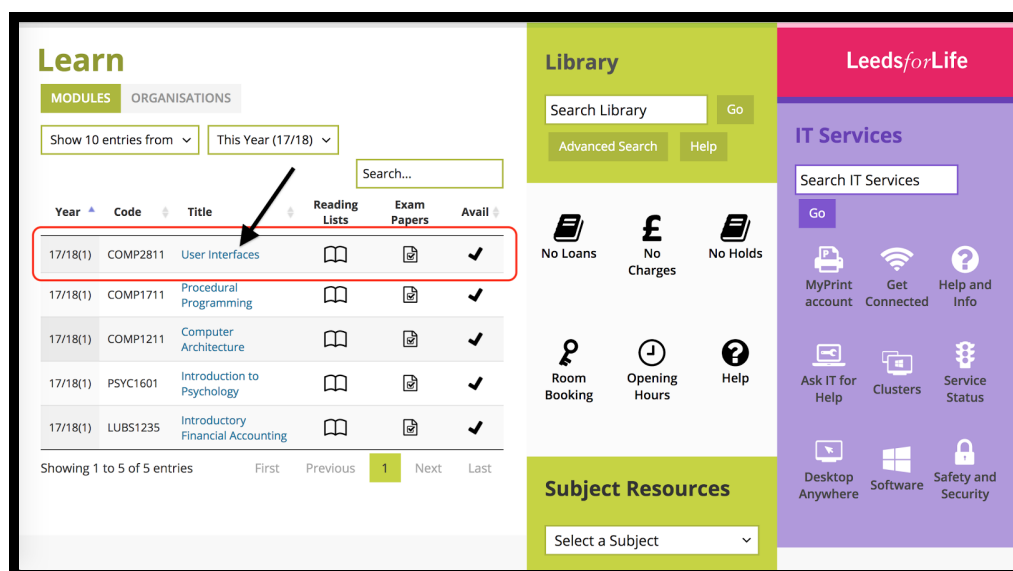
(*Image 6*, Learn Homepage)

1. Will the correct action be evident to the user?

The action is evident to the User. It is clear that the module is under the modules section and to get to the module details the user must click the highlighted hyperlink. The user can then select which module he or she is trying to reach.
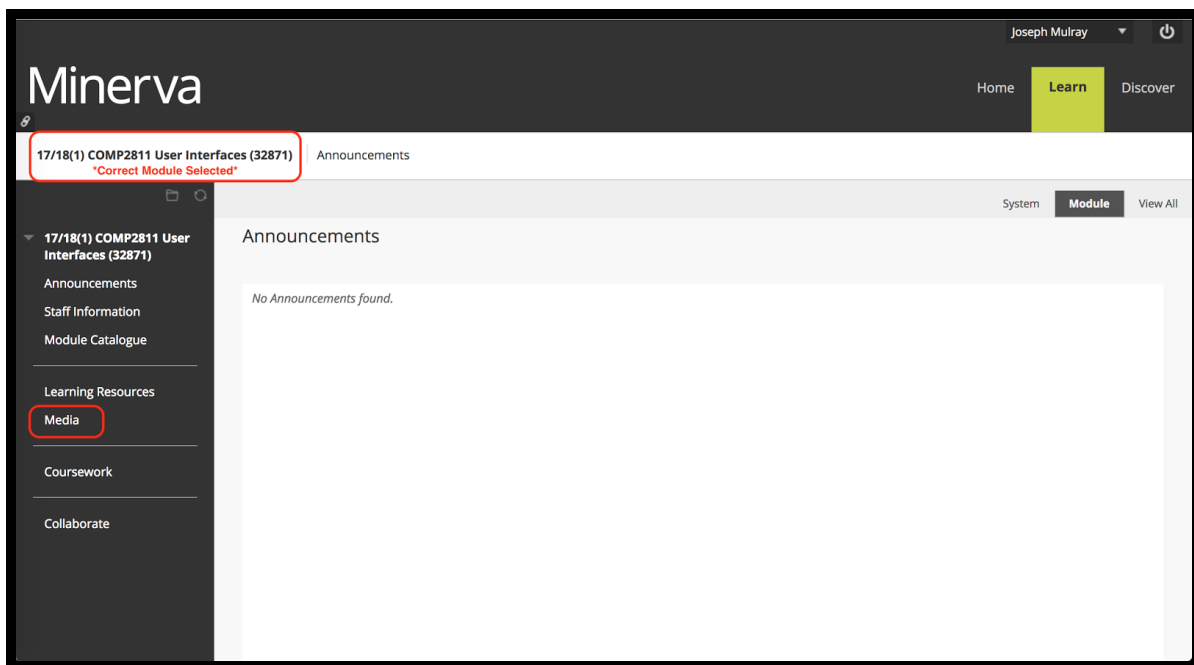
2. Will the user connect the correct action's description/label with his/her intent?

Yes, the correct action is evident to the user with a descriptive label for each module. There is a clear correct link to click on for a user to select a specific module.

3. Will the user properly interpret the system's response?

If the user chooses the wrong module, he or she will know by the module description present at the top of the page after a module is selected. In order for the user to correctly chose the right module the user has to go back to the Learn Home page and select the correct module.

Step 2:

(*Image 7*, Module Home page)

1. Will the correct action be evident to the user?

Yes, the user can find the module selected at the top of the page and also in the module menu. The user will immediately know if he or she is on the correct module or not.
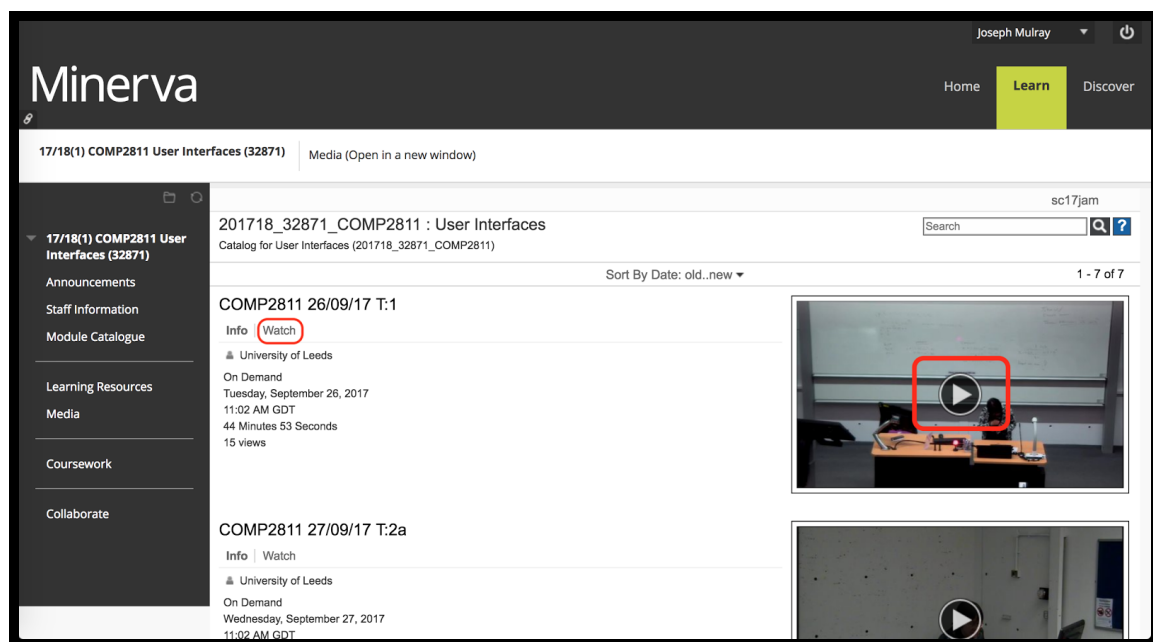
2. Will the user connect the correct action's description/label with his/her intent?

No, the correct action is evident to the user. The user must infer that recorded class lectures are under the *Media* section under a module page and not under the *Learning Resources,* which might commonly be selected.

3. Will the user properly interpret the system's response?

Yes, the user will properly interpret the system's response. If the user selects *Media* under the module menu he or she will directly receive feedback from the system by navigating to a new page.

Step 3:

(*Image 8*, Recorded Lectures)

1. Will the correct action be evident to the user?

Yes, there are two options for the user to click on in order to watch a recorded lecture. The play button is on the right hand side in *Image 8,* which will play the video on the current page. Also, there is a *Watch* button that will open a new window for a full screen video.

2. Will the user connect the correct action's description/label with his/her intent?

Yes, either options in this case will reach the user's end goal for the scenario.

3. Will the user properly interpret the system's response?

Yes, the user properly interprets the system's response. After the watch button is clicked a *Loading* message is given letting the user know that the system has received their input to watch the video and is loading that content.

4. Conclusion

The results of the heuristic evaluation and cognitive walkthrough provided extremely useful information in the areas that were beneficiary and the areas needed for improvement. It highlighted key areas of improvement and features that are only taken into consideration after reviewing the application from a broader scope. For example, the repeated use of icon's caused confusion for the user's. Also, the lack of user recovery from errors and an inefficient use of aesthetics were all some of the key improvements noted in the review of the Minerva Application. There were several successful areas such as the color changing aesthetics to let the user know that he or she has changed pages and the services being offered. Overall, the user experience of the Minerva platform is satisfactory and should keep providing services to the University of Leeds.

5. References

5.1 Sources

"Blackboard Learn." Wikipedia, Wikimedia Foundation, 12 Oct. 2017, en.wikipedia.org/wiki/Blackboard_Learn.

"Heuristic Evaluation." Heuristic Evaluation, University of Michigan, www.adamatorres.com/docs/Portfolio/Projects/syntax20/Syntax2.0_Heuristic_Evaluation.pdf.

"How to Conduct a Cognitive Walkthrough." The Interaction Design Foundation, www.interaction-design.org/literature/article/how-to-conduct-a-cognitive-walkthrough.

"What's the Difference between a Heuristic Evaluation and a Cognitive Walkthrough?" MeasuringU, measuringu.com/he-cw/.