

Project 17

Deliverable B

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Project Briefing

CEED Space
Ross Video

The CEED Space at the University of Ottawa is a space that is open to the community and all University of Ottawa student. The CEED Space includes many different labs, which include; Makerspace, Sandbox, Design Commons, Manufacturing Training Centre, Brunsfield Centre, and John McEntyre Team Space.

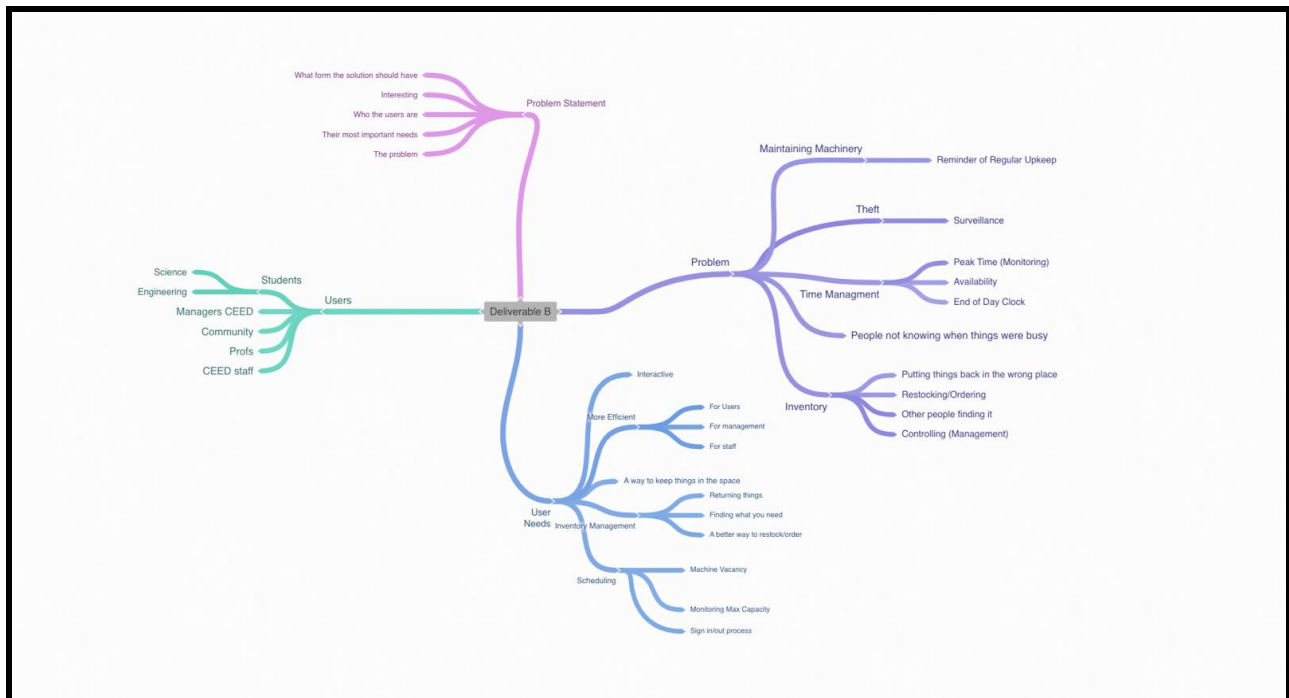
Although it is a wonderful lab space, there are a few issues that can be easily fixed to make the lab more efficient. For instance, the CEED staff find it difficult to maintain the lab inventory, managing the number of students of the lab, vacancy of machinery, and more issues which will be further explored.

A solution to improve the efficiency of the CEED Space is to use a software called Ross Video. The Dashboard system is easy to use, but can program complex systems. With the use of Ross Video, one or many problems in the CEED space can be solved. As a result, the users of the CEED Space; the CEED staff, University of Ottawa students, professors and the community will benefit as their time in the lab will be more enjoyable and used more efficiently.

User Needs Priority List:

Need	Priority and Description:
<u>INVENTORY MANAGEMENT</u>	----- -
Keeping things in their space	4 - The clients mentioned a problem with keeping inventory in the space. Keeping things in the CEED space is beneficial for the users because when they go to use something it will not be missing. The clients stated that a better way to stay organized and keep tools in the space would be more cost, time, and human resource efficient.
Correctly returning items	5 - Correctly returning tools to their place was identified as a need by the managers. It is more time and human resource efficient. As there are limited staff in the space and limited time in a day, it wastes the time of the staff and the user when a tool must be found.
Finding things	5 - Students and users of the space identified

	<p>locating items when they first begin using the space is a need. They found they were competing for the attention of the staff member for questions about location. A staff member identified familiarizing themselves with the space and the location of all of the tools can be difficult to get used to.</p>
Efficiency in restocking/ordering	<p>3 - A manager of the CEED space mentioned the difficulties had when reordering tools. Due to the lack of inventory management and the problems stated above, they are having a hard time reordering efficiently cost, and time wise.</p>
<u>TIME MANAGEMENT</u>	<p>----- -</p>
Machine vacancy	<p>5 - Machine Vacancy is a top priority. We heard it mentioned several times during the client meeting. The users of the CEED space want to know if equipment is available. They do not want to show up to the lab and find the machinery they were hoping to use, already in use.</p>
Monitoring max capacity/peak times	<p>4 - The CEED staff need a system to monitor the max capacity and keep track of the peak times to ensure there are enough staff on hand, and that it is not too crowded . A student or community member using the space does not want it overcrowded as this is a hindrance to their ability to work.</p>
Sign-in/out process	<p>4 - In conjunction with the last point, the staff need a way to manage the people coming in and out of the CEED space. They want to be able to track who is coming in and how long they are staying.</p>
End of day clock	<p>3 - The end-of-day clock was mentioned at the client meeting as a general solution to the time management problem in the CEED space. Doing more research and talking to users of the CEED space, a clock wasn't a 'top priority' in their opinions. As such, it has been lowered on the list to accommodate other needs.</p>



Through the client meeting and various user interviews, a list of central needs, or foci of the project were outlined. The needs were highlighted in the table above, each with a corresponding priority factor, five being a crucial element and one, simply a bonus feature. The users of CEED seem to have two main dilemmas, time and inventory management; as such, the specific needs were separated into those two categories. One problem that was addressed at the client meeting was surveillance. It did not fit into either category of time or inventory management and it was quite low on the priority scale. So, as to maintain the cohesiveness of the project, it was left out.

The CEED space is lacking the tools for efficient time and inventory management. The current sign-in/out system being used in the labs is a good way of tracking who is using the lab and for how long they are there. However, to achieve the user needs as outlined above, new interactive features must be integrated into the system.

Through deep analysis of the functionality of the CEED space we were able to create criteria based on the expectations and needs of the users of the space. To maintain the functionality, certain criteria must be met. There were various issues commonly expressed by users of the space but, we collectively decided that efficiency is at the top of the list. By prioritizing the specific needs of the users in terms of efficiency, we were able to define a problem statement:

The staff, students, and community that use the CEED space need an interactive system in order to time and inventory manage more efficiently.

BENCHMARKING

Tool	Description and How it Relates to Us
Envoy	An app to make sign in easy and track who is in and out of the space at what times. It also has a feature for management to be able to better track

	inventory. It boasts of enhancing security and help with time efficiency. All of these were repeated problems in the client meeting.
Museum Views (Google arts and culture virtual maps)	Many large museums use google maps tours in order to give virtual tours to anyone online. If we were able to create an interactive virtual map, it could potentially allow users to find things and return them to their proper place without having to use the staff's time.
Countdown Kings Countdown Timer	This is a software that is available to download and is a countdown timer display for whatever timer you set. This could be useful to us either as a solution to showing how much time is left on someone's project, or to display how much time is left until the space closes.
Software used in Stores	Lights attached to sensors of different kinds can tell when a machine is in use. Human interaction such as pressing a button can also trigger a system that shows when the machine or service is available to users and when it is not. We could use technology similar to this in order to display to other users when a machine is in use.

With the assistance of ROSS Dashboard and other practical applications, we will be able to effectively and successfully resolve our problem making the CEED space more manageable, accessible and enjoyable for all.