



Group 3.5 Project Proposal: UofCMingle

Project Idea

Our goal is to design an application that gives UofC students a user-friendly way of finding clubs around campus and joining them. The application will have a calendar that holds all the scheduled events that the user is interested in. Users will then be able to search for clubs, posted by club-hosts who are also using the app, and then add those clubs to their personal schedule. Users will also be able to add personal interests to their profile that the system will then use to filter clubs that the user would more likely be interested in. Users can then narrow down results and choose desired clubs. Thus they will ultimately be able to create their own calendar of events that they themselves are interested in. Having a calendar will give the user a well-organized visual of the events around campus.

This application is intended to provide an efficient system for students to find clubs, especially ones that they are more likely to be interested in. The system will also have a point-based feature for going to events which can reward the users as an extra incentive for going to events.

Stakeholders

University Students - Primary users of the app, who want to gain information from it

Club Executives - Also important users of the app, but also content creators in the sense that they use it to create content targeted toward students (eg uploading club events)

University administration - They would describe rules and constraints related to the design and implementation of the system and app. University admin might also wish to add extracurricular events not connected to club, with the goal of informing students about them.

Research Methods

Interviews

For our first research method we chose to use interviews, and conducted five of them. All of the interviews we conducted targeted students, because we needed to constrain the scope of our research given how extensive the number of actual stakeholders might be, and because we thought interviews would be most useful with students by allowing them to express their thoughts in a natural manner as opposed to doing Surveys, where the data will be static. The scope of students we asked consisted of students not in a club and students in different types of clubs. We asked the students six questions related to clubs and events on campus to gather attention as to how they find the current experience and how we could improve it.

We found that all the students interviewed are interested in clubs and events, supporting our idea that a centralised application for finding such clubs and events would be useful to our target audience. It seemed that the interviewees had many different methods of receiving news and information for the events of the clubs they are apart of, which includes Posters, Facebook, Emails, and Discord, however, not everybody is happy with it. One of the students mentioned that Facebook is not very appealing to use as it is cluttered and lacks organisation and categorisation. Another said that emails can often get buried and sometimes it even goes to their spam inbox. The students that mentioned Discord seem to be satisfied with the frequency of information they get, however, Discord is mainly used only by hobby clubs, which is not a majority of the club population on campus. In regards to finding events of clubs the students are not a part of, most have trouble with finding such information. One student said that posters is what she looks to most, however, most posters usually get covered by other posters as quick as within a day, which means that a lot of events get overshadowed and hidden by other events.

We asked the interviewees whether they have trouble finding clubs that suit their interests. The result of this question was split evenly of yes and no's. The problem with the students that have trouble is that clubs week only occur once a semester, and also

the clubs are not present on all days of clubs week. In addition to this, the students usually only spend two out of the five days at clubs week, meaning there is a high chance they can miss a club that they are interested in. Another student mentioned that they do not know whether a list of all university clubs even exist or not. In regards to clubs that students are unfamiliar with, the majority stated that they would be interested in joining such clubs and events if they knew about what events the clubs do.

Finally, we questioned the students about a reward system for going to events. We asked them about an old system called LevelUp and most of them said that they knew about the system but never really used it themselves. Some found it convoluted to use having to enter the code at a certain time and having to log in on a website. Some said that the prizes did not really interest them hence they did not use it.

From the interviews, the clear points that we have to address in our application is:

- Organisation - The clubs and events has to be categorised and easy to find. This makes the personal-interest feature really useful to filter clubs and events that the users would want to find so that they will not be frustrated from not being able to locate such events
- Simplicity - We would need to make the rewards feature simple enough to use that the users would be motivated to use it
- Ease of Search - We need to make the events and clubs easy to search as a lot of the interviewees are interested in attending events that may not be within their current interests

We think that interviews worked well in finding not only what the students think about clubs and events information on campus but also why they think a certain way. Some of the interviewees would talk further than what the question had asked them which gives us a lot more insight into the current conditions of information on clubs and events. We would make our questions more differently. Sometimes, some of the answers we received overlapped with another question which rendered the second question useless, hence it was repetitive and unnecessary.

Secondary Research

Our second research method involved looking at previous studies done on the topic of gameification and social networks in a motivational and specifically educational context. We chose this method because it would help us gain insight into the successes that

designers of similar systems have had, as well as the reaction that a variety of their stakeholders have had. We found three studies that were relevant to this topic.

Some of the most interesting findings from this research include the following.

- In one study conducted among University students in Sweden, 95% claimed to be regular gamers, and 90% preferred a gameified exercise app compared to a regular version, despite only 60% having experience with similar apps.[1]
- In another University study designed to motivate students to complete optional coursework, the system managed considerable student engagement and was found to be fun and rewarding.[2]
- That study also suggested some best practices for such systems.
 - They should involve automatic enrollment for participants.
 - The strength of the system was the “automatic connection of all students in classes with one another”, “without having to introduce themselves, collect e-mail addresses, add Facebook friends” etc.
 - The social aspect should be “integrated in its social context”, meaning that the app should be comprehensive and not require user interaction with too many aspects external to the app.
 - “Immediacy of feedback is an important motivational element”, including a suggestion that virtual rewards like badges can be just as motivating as physical prizes.
 - Usability and human factors are essential to getting users to use the app.

Taking these results together, it seems clear that an RPG like system involving gameification can be useful in increasing student engagement with our app and the associated extracurriculars. An important and related feature would be a simple social network that all students are automatically enrolled in. This would allow students to see and befriend people in the same clubs as them, as well as see which events their friends are going to and getting experience from.

Some research suggests that this experience system does not need to be tied to an actual physical award system (like LevelUp was at the University of Calgary), but instead that social and immediate digital rewards can be just as exciting and more cost-effective. This conclusion was also suggested by a third study conducted in a university environment.[3]

Another important conclusion is that the system should be easy to use and involve as few hoops to jump through as possible. The system that the gym had for level up (where scanning your University ID card automatically registered your participation) is a

useful example of easiness, but such a system might be hard to implement for most clubs, and so that system will require more thought on our part.

Ultimately, secondary research using Google Scholar turned up relevant and useful information about the responses of students to a university system.

The one weakness of our chosen research methods is that we did not gain insight into the interest tests of all of our stakeholders (especially and importantly the University administration). If we were designing an app for production and deployment, an important step would be interviewing relevant parties, and if possible, getting information related to the LevelUp system that the University of Calgary abandoned last year.

System Task Descriptions

Browsing Calendar: Mary wants to see what events are going on with clubs around campus in the next month. She opens the app, and the main screen presents her with a calendar, with specific events highlighted and linked to on the days of the calendar that they occur. By default she sees a general calendar of all club events, but she can also choose to only see the calendar list events from clubs she has subscribed to.

Very routine, very low cost, very simple but with options increasing complexity

Category Preferences: Hoshi wants to see what clubs are available that fits his interests. He goes to his profile settings and selects the category section. He then chooses the club categories that fits his interests. He heads back to the calendar view and he switches the view type to by preferred category to see events that are run by clubs that might interest him. Routine, simple, low cost

Checking list of members: David wants to check a club that he is the president for to see the number of enlisted students signed up for his club and as well to check who they are and get familiar with their names. He goes to the list of clubs and taps on his club, he can see the club details and on the side (either through a list or a button that leads to a list) can view the current members of the club and familiarize himself to the club member's names. He also goes to check if his name is on the list and that it is labelled underneath with the title "club president" so others would know who to go to if they have questions about the club

Redeem event attendance for XP: Napoleon attends a club event and wants to be rewarded with XP within the app for his attendance. He navigates in the app's main menu on his phone to the function to scan the barcode provided by executives at the

event, and is immediately presented with a visual representation of the accomplishment and his progress towards the next level. The app might also show others who attend or plan to attend, including any friends he might have added.

Routine, relatively low complexity (but requires physical interaction using phone's camera)

Level Information: Strootman wants to know what prizes he can get from gaining XP, and also who has the most XP in the app. He goes to the InitToWinit section and clicks Leaderboards to check out where he ranks and also who are the top students that have racked the most XP. He then clicks on the prize list to check out what prizes he can win. Routine.

Account Recovery: Rebecca got hit by a car and got a concussion, which causes her to forget her account login details. She goes to IT support in person to recover her account by showing her face and UCID as proof. Branthony who works at IT support will then confirm her identity and locate her account username/id and make her reset her password. Rebecca can now login. Incidental, costly, somewhat complex.

References

- [1]J. Sundberg, "Can gameification motivate exercise : A user experiment regarding a normal exercise app compared to a gamified exercise app", DIVA, 2019. [Online]. Available: <http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1261920&dswid=6911>. [Accessed: 09- Oct- 2019].
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- [3]L. Hakulinen, T. Auvinen and A. Korhonen, "The Effect of Achievement Badges on Students' Behavior: An Empirical Study in a University-Level Computer Science Course", *International Journal of Emerging Technologies in Learning (iJET)*, vol. 10, no. 1, p. 18, 2015. Available: 10.3991/ijet.v10i1.4221.