CMPT 363 D100:
USER INTERFACE DESIGN

Assignment 1

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Part 1: The Good, The Bad, and The Interesting UI

#: 1	**Good/Bad/Interesting:** **Good UI Design**

Product name:

V901G-CAN Vicks® Digital Thermometer

Product information:

V901G-CAN Vicks® Digital Thermometer provides professional accuracy with its 30 second temperature readout. The V901G-CAN Vicks® Digital Thermometer displays in °C and °F and beeps to indicate temperature has been read. Is used for oral, rectal, or underarm use, has an automatic shut-off, memory recall, and is water resistant. [1]

Image:

Detailed explanation:

This product has only one button which is used for turning on and off the thermometer, as well as a LED screen and a sensor, meeting the principle of aesthetic and minimalist design, and it is easy for the user to understand how does this product work. Furthermore, after turning on the product, it shows the last record and the unit it currently uses, so that the user does not need to memorize the previous setting and data.

#: 2	Good/Bad/Interesting: Bad UI Design

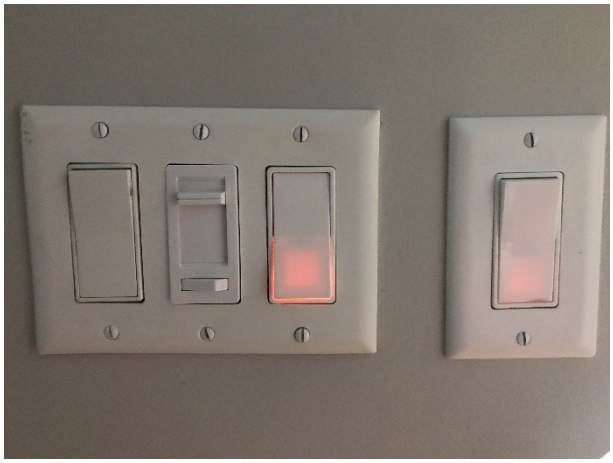
Product name:

Leviton Decora 4/Way 15 Amp Switch, White

Product information:

Click on the light switch to turn on or turn off the light.

Image:



Detailed explanation:

These light switches do not have clear signs to indicate what light is under control of a certain switch. Besides, these switches do not have luminescent signs of turning on lights, so when the user would like to turn on the light in dark, it is difficult to find the switches.

#: 3	**Good/Bad/Interesting:** Interesting UI Design

Product name:

Apple Pencil (2nd Generation)

Product information:

Apple Pencil (2nd generation) delivers pixel-perfect precision and industry-leading low latency, making it great for drawing, sketching, colouring, taking notes, marking up PDFs and more. And it is as easy and natural to use as a pencil. It also allows a user to change tools without setting them down, via its intuitive touch surface that supports double-tapping. Designed for iPad Pro and iPad Air, it features a flat edge that attaches magnetically for automatic charging and pairing. [2]

Image:

Detailed explanation:

The design of the Apple Pencil (2nd Generation) is like a pencil in the real world, which satisfies the principle of matching between the system and the real world and helps users to use this product easily. But when changing modes of writing and erasing is double-tapping, and it is a bit strange that someone uses the top of a pencil to erase something, and the user might forget the current mode of the product.

Part 2: Heuristic Evaluation

#: 1	**Problem/Good: Usability Problem**

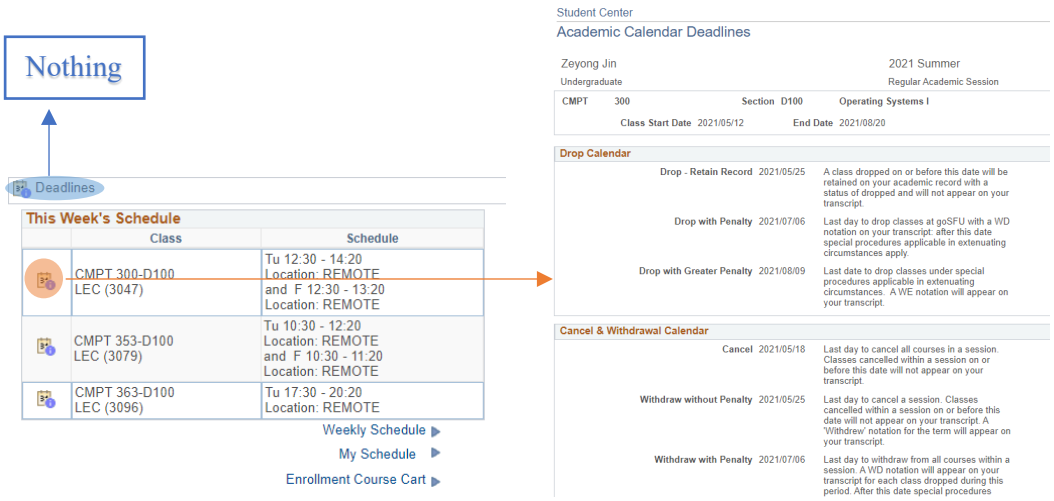
Name:

Confusing message of deadline

Relevant heuristic:

No.8: Aesthetic and minimalist design

Evidence of issue:



Above the title of "This Week's Schedule", there is a line of "Deadline" with smaller font. But if clicking on the "Deadline" or the calendar logo to the left of the text, nothing would happen. In the table of this week's courses, there is a calendar logo to the left of the course code, and if clicking on the logo, it would jump to the page of the academic calendar of this course.

Detailed explanation:

This part seems to have two titles, one is "Deadline" and another one is "This Week's Schedule", and the font of "Deadline" is smaller. There is no clear relationship or link between the fore-mentioned things. If a user wants to look at the week's schedule, his or her attention might be diverted due to the "Deadline" line. Given that clicking on the "Deadline" or the calendar logo to the left of the text, nothing would happen, a user might not click on the calendar logo to the left of the course code or wonder what the logo means. It may make the student miss some important academic dates of this course.

(Continued #: 1)

The above instance breaks the principle of aesthetic and minimalist design.

Severity or Benefit (minor, major, critical):

3 (Major)

Justification:

Students use the goSFU website to check the details of their courses, especially the time and deadlines. Given this sector is the only part that has this information, the designer needs to provide clear information and ensure each student can get access to the information through this sector.

Possible solution and/or Trade-offs:

The designer could change the text of “Deadline” to “Hint: Click on the calendar logo to view deadlines.” and move this line to the bottom of the week’s schedule. A potential trade-off is that a user might spend longer time on this sector, as the contents of academic deadlines are a bit too much, which may reduce the user experience.

#: 2	**Problem/Good: Usability Problem**

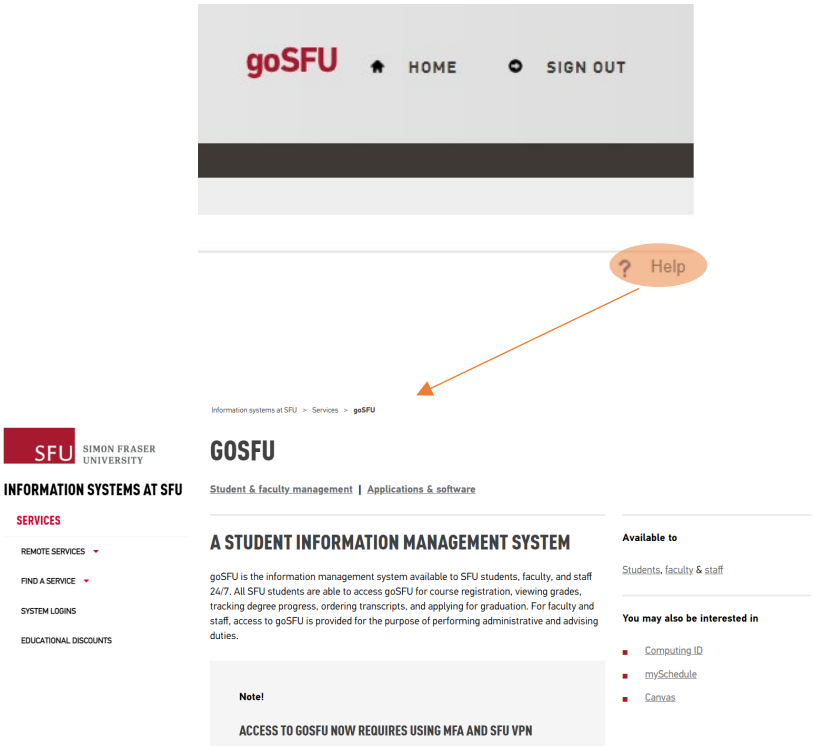
Name:

Help page with limited information

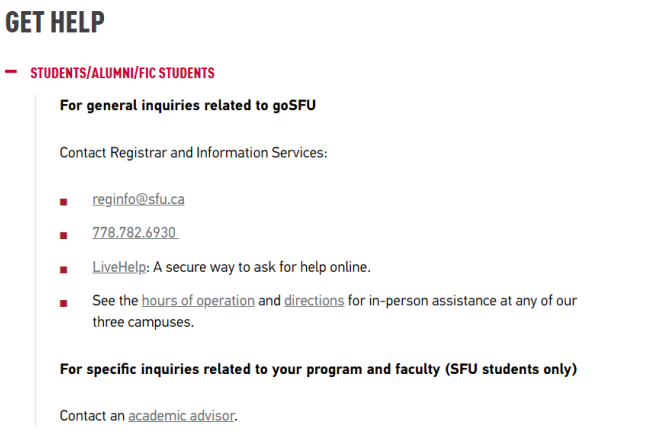
Relevant heuristic:

No.10: Help and documentation

Evidence of issue:



The icon of help is on the right top of the goSFU website, in small font. After clicking on the icon, the help page is the description of the goSFU website. Only at the bottom of the help page, it provides limited methods to get help as follows.



(Continued #: 2)

Detailed explanation:

First, due to the location and small font of the help icon, it is difficult for the user to find a help page when necessary. Besides, the help page does not provide sufficient help or documentation but focuses on the description of the goSFU website, which is no need for the user. Although the help page provides some methods of getting help, they are not enough for the user to get a response and solve the issue immediately, as the student must check whether it is work time and wait for the reply from the information service team.

Both above instances violate the principle of help and documentation.

Severity or Benefit (minor, major, critical):

4 (critical)

Justification:

The goSFU website plays an important role in student service, and an SFU student finishes lots of works on this website. If a freshman is not familiar with the goSFU system, it is the designer's responsibility to ensure the user can find out the help page. Additionally, according to the help page, the only way to get help is by contacting the information service team. A mistake in the design process increases the workload of the team and further extend the response time.

Possible solution and/or Trade-offs:

There is a website of student video tutorials, showing how to use the goSFU website via videos. The designer could highlight the help icon and redirect it to the website of student video tutorials. The designer also needs to add some brief help documentations for the students who do not want to watch videos. Besides, the designer could maintain the method of getting help from the information service team but indicate that this method is used when the documentation could not solve the issue.

A potential trade-off is that the home page of the goSFU website might be more crowded, which is against the principle of aesthetic and minimalist design.

#: 3	**Problem/Good: Good Usability**

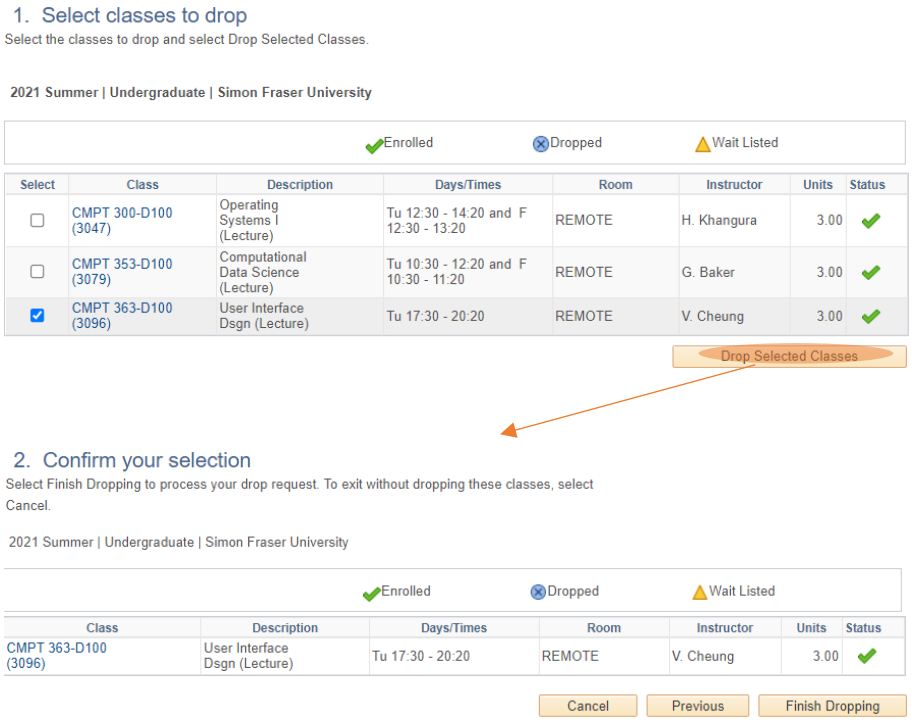
Name:

Confirmation of dropping classes

Relevant heuristic:

No.5: Error prevention & No.3: User control and freedom

Evidence of issue:



After clicking on the button of "Drop Selected Classes", the student would be redirected to the second step, which asks the user to double-check and confirm the decision.

Detailed explanation:

After clicking on the button of "Drop Selected Classes", the system would not directly allow the student to drop the selected classes. The system provides a chance for the student to double-check, so the student has a chance to cancel the choice of dropping or return to the previous step, which is a practice of the principles of error prevention and user control and freedom. Only if the student clicks on the button of "Finish Dropping", the selected classes could be successfully dropped.

(Continued #: 3)

Severity or Benefit (minor, major, critical):

4 (Critical)

Justification:

The goSFU website is the only place for students to add or drop classes. If there are no mechanisms of error prevention, then the student might drop classes by accident. Due to the strict academic deadlines, the student might fail to add those classes back after the deadline, which would trigger serious academic issues for the student. With the confirmation step, the possibility of false operation can be reduced, and improve the user experience.

Possible solution and/or Trade-offs:

A potential trade-off is that since it is the last step of dropping classes, error prevention would not be applied. Otherwise, there would be an infinite loop of confirmation. However, for a careless user, it is still possible to click a button by accident. But at this time, the choice is regarded as the final decision, and the student must be responsible for even the false choice.

#: 4	**Problem/Good:** **Good Usability**

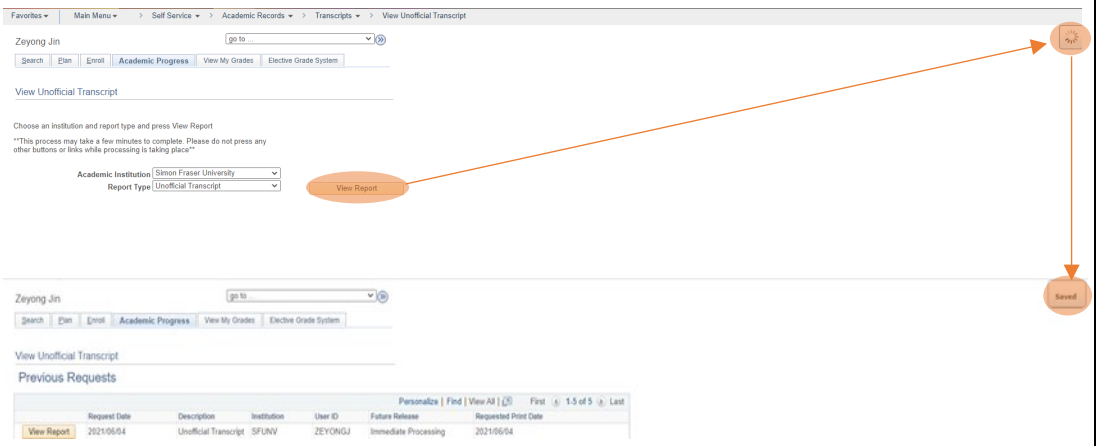
Name:

Good visibility of system status when generating transcripts

Relevant heuristic:

No.1: Visibility of system status

Evidence of issue:



After clicking on the button of "View Report", the system shows an animated loading icon on the right top of the page. When the generation is completed, the icon is changed to "Saved", and the page is redirected to the page of previous requests, where the user could view the transcript.

Detailed explanation:

After clicking on the button of "View Report", the system shows an animated loading icon on the right top of the page, which helps the user understand that the application has been accepted by the system and the system is working on the generation of the transcript. The generation time would be less than one minute, which is reasonable. When the icon is changed to "Saved", the user knows the generation is finished, and the page is redirected to the page of previous requests, where the user could view the transcript. Given the requests are ordered by time, the user could easily find the latest generated transcript.

Both above instances follow the principle of visibility of system status.

Severity or Benefit (minor, major, critical):

2 (Minor)

(Continued #: 4)

Justification:

With an animated loading icon, the user would not double click the button of "View Report" and generate redundant files. The status of "Saved" makes the user ensure that the generation is successful and the first record on the page of "previous report" is the report just generated.

Possible solution and/or Trade-offs:

A potential trade-off is that due to the small size and short waiting time, some users may not find there is an icon showing the system status. And as soon as the generation is finished, the user would be redirected to the page of "previous requests", the status of "Saved" seems useless. Because even if the user did not find the icon, he or she could still find the latest transcript by looking at the generation time on the list.

Summary

Overall Process

During the process of my heuristic evaluation, I first looked over the goSFU website, and list more than two potential good usability as well as usability problems. Based on the ten principles of heuristic evaluation, I checked whether each record is satisfied the requirements or not. In the end, according to the instruction, I chose two good usability as well as two usability problems, and fill out some basic information on the forms.

When determining the severity or benefit (minor, major, critical), I would first consider myself as a freshman who knows nothing about the goSFU system and make the first judgement. Then, I turned to the context of the ten principles to make a final judgment.

For possible solutions and/or trade-offs, I made several solutions and/or answers of trade-offs and chose the most appropriate one to fill the blank. I checked the grammar, spelling and formatting finally.

Main Findings

The first finding is that most sectors of the goSFU website have followed the ten principles of heuristic evaluation, sometimes a sector uses more than one principle. However, there are still some instances of violating the principles.

I realize that the display of a system is a combination of all ten principles of heuristic evaluation. And even though the designer has tried to best to design the website, there would be some principles that are violated in some sectors. Also, although some sectors follow a certain principle of heuristic evaluation, there are still trade-offs. And this phenomenon is inevitable.

After all, the ten principles are just a heuristic evaluation, not a regulation or law. A designer needs to analyze the situation and use the principles flexibly. Perhaps following a principle makes no use. A successful design is never 100 percent perfect but needs lots of work from users, engineers, and designers.

Part 3: References

[1] VICKS, "V901G-CAN VICKS® DIGITAL THERMOMETER," VICKS, 13 October 2020. [Online]. Available: https://vicks.ca/en-ca/shop-products/thermometers/v901g-can-vicks-digital-thermometer. [Accessed 3 June 2021].

[2] Apple Inc., "Apple Pencil (2nd Generation)," Apple Inc., 7 November 2018. [Online]. Available: https://www.apple.com/ca/shop/product/MU8F2AM/A/apple-pencil-2nd-generation. [Accessed 3 June 2021].