INFORMATICS 131

HOMEWORK 1: APPLYING USABILITY PRINCIPLES

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<u>Informatics 131 – Homework 1</u>

Introduction

For the assignment of the application of the eight golden principles of interface design, I choose

to analyze the UCI Schedule of Classes System, commonly referred to as UCI WebSoc. WebSoc is the system used by current students of UCI to understand the variety classes offered every quarter differing by department, time and other categories which can be decided by the user, but one out of four specified categories [General Education (breadth), Department name, Course Code/Range, Instructor] need to be entered to have a suitable outcome, which have a red star next to them to show that they are mandatory. You also have other categories such as Course Level, Course Type, Number of units, start time, end time etc. signified



by the blue color to make the search for classes for students easier.

The eight golden rules of interface design are:

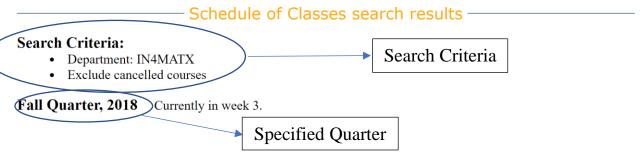
- Consistency
- Universal Usability
- Feedback
- Closure
- Error Prevention
- Reversal of Actions
- Control
- Memory

Out of the eight rules specified, the five that stood out to me for the UCI WebSoc system were: **Consistency, Universal Usability, Feedback, Reversal of Actions and Control**. I believe that the entire WebSoc system is essentially a list of classes and departments, and the web-based system sorts that huge list as per the entered criteria.

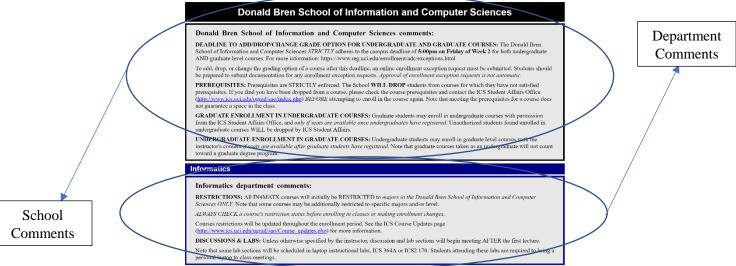
WebSoc can be accessed from the UCI registrar website or through the link directly [https://www.reg.uci.edu/perl/WebSoc/WebSoc].

Principle #1: Consistency

Consistency in terms of font, color and layout can be observed throughout the web system. The layout is extremely consistent on every result page. It starts off with search criteria first displayed, and then the quarter so specified.



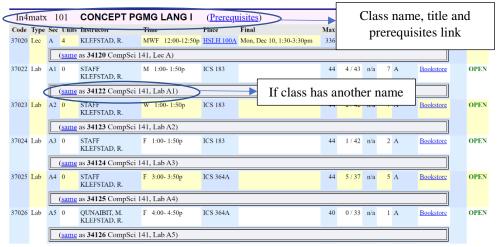
After that, with every department, comments from the school which the department is part of, as well as comments from the department itself are displayed. If multiple departments are displayed, they are done so in alphabetical order and the classes within departments are sorted alphabetically and numerically.



The description of every class is also consistent in the order of: Code, Type, Section, Units, Instructor, Time, Place, Final, Maximum Enrollment Number, Current Enrollment Number, Waitlist Enrollment Number, Enrollment Requests, Restrictions (if any), Textbooks and Status.

Code Type Sec Units Instructor Time Place Final Max Enr WL Req Rstr Textbooks Web Status

The class name and title, as well as a link to the class prerequisites if any are shown in a pink box. A class is displayed with lecture type first, then the discussion and lab if offered, and the columns alternate in blue and yellow. If a class is also referred to by another name, that name and department is mentioned in grey and white box below the class. This all can be noticed in the picture below. Usually if the class has space it shows 'OPEN' which is green color, 'Waitl' in red color if there is a waitlist for the class and 'FULL' in black color, if the waitlist is full as well.



Times New Roman font is used throughout the results of the system, and for most of the portions text is in Uppercase, except maybe for some such as the Type of class [lecture, discussion or lab], or the column headings etc.

In terms of consistency, the designer has done a good job maintaining the same layout throughout the web system, I believe this is mainly done to maintain uniformity throughout the website and keep the system organized. Consistency allows the user, which in these cases are often students to create a better sense of familiarity and reliability. It eliminates the element of confusion and gives a clearer view about the website to the user.

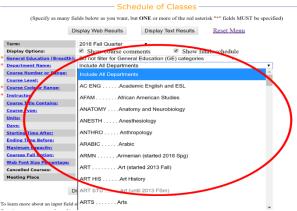
The result pages are usually consistent except in case of general education categories. In these cases, the class lectures are only displayed, and discussions and labs have a link next to the prerequisite link which leads you to a page with just the class alone. This can be noticed in the picture below. All other elements of the page remain the same.



Another factor which consistency helps for is user control. Through the consistency maintained throughout the web system in terms of color, font and output displays.

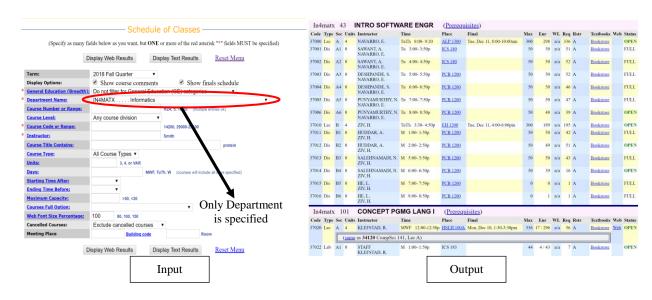
Principle #2: Universal Usability

This principle can be seen with the fact that the system can be used by students of all majors and professors of all departments. Students and professors have the freedom to customize which department class they want to see and if the department has classes offered in specificity to the

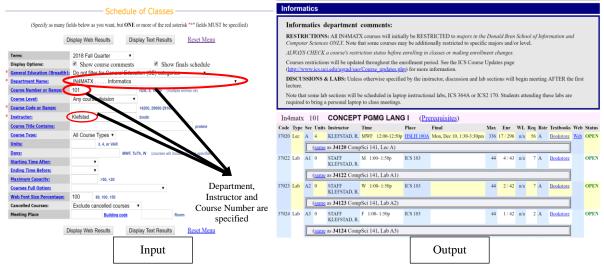


general education category he/she requested for, which can be seen in the picture above, where you have the option of not only including all departments, but also the option of specifying your department from the several departments which are sorted in alphabetical order.

As per my understanding, it shows me that the design of the WebSoc system was done keeping in mind the needs of the students but also the department heads at the same time. I believe it would be easier to maintain or further increase universal usability if instead of departments, classes could be sorted in terms of majors itself rather than departments allowing newer students to be easily affiliated with the system. A positive notion which I observed in terms of universal usability is that one can go from being vague to extremely specific in terms of the classes, so a new user could explore different classes at once or even simply type in the specific class he/she wants to look at, for example in the below picture only department is specified so all the classes associated with the department are displayed such as when they are trying to explore all the informatics classes offered that quarter:



Differing from the picture above, the below picture shows that one can be more specific in terms of the class they wanted to look at, such as in the case the individual is trying to look for Informatics 101 with Klefstad:



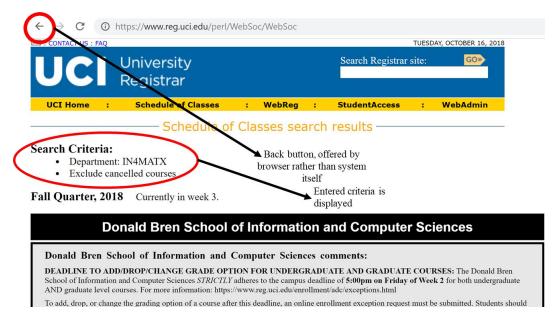
I wouldn't say that this system can be used universally, because it is meant to serve the students of University of California, Irvine with different majors and career interests. The system is universally usable if the universe population consisted of UCI Students and Faculty, students trying to get into UCI and individuals associated with UCI for a short or long period of time. Universal Usability in terms of WebSoc allows accommodation of all majors and students of UCI, make the results and content of the website accessible and usable by all.

Principle #3: Reversal of Actions

In the WebSoc system, there is permitted reversal of actions to allow anxiety relief and allow users to understand that errors can easily be undone. One way is through the 'Reset Menu' option on the initial page itself, which is highlighted in the screenshot below:

-		Schedule of Classes —		
	(Specify as many	fields below as you want, but ONE or more of the red asterisk "*" fields MUST be specified)		
	(-1,			
		Display Web Results Display Text Results Reset Menu		
	Term:	2018 Fall Quarter ▼		
	Display Options:	Show course comments Show finals schedule Show finals schedule		
*	General Education (Breadth			
*	Department Name:	Include All Departments ▼		
	Course Number or Range:	H2A, 5, 10-20 (multiple entries ok)		
	Course Level:	Any course division ▼		
*	Course Code or Range:	14200, 29000-29100		
*	Instructor:	Klefstad Smith		
	Course Title Contains:	protein		
	Course Type:	All Course Types ▼		
	Units:	3, 4, or VAR		
	Days:	MWF, TuTh, W (courses will include all days specified)		
	Starting Time After:	▼		
	Ending Time Before:	▼ Telephone		
	Maximum Capacity:	>50, <20		
	Courses Full Option:	▼		
	Web Font Size Percentage:	100 80, 100, 150		
	Cancelled Courses:	Exclude cancelled courses ▼		
	Meeting Place	Building code Room		
		Display Web Results Display Text Results Reset Menu		

Upon selecting 'Reset Menu', all categories are set back to their initial state, allowing user to reenter all their desired entries if there was a possibility of an error. Users can also simply return to the previous page by selecting the back button on their browser and change the options. There is easy reversal of actions as most of the categories have drop-down menus which allows individuals to easily change their option after entry. In case, they have made several text entries such as for Course instructor, course number etc and they want to go back to their initial states, that is what the Reset Menu button is for. I believe that WebSoc designers did a good job in terms of allowing individuals to manipulate their entries from one form to another, but what could be improved upon is making those changes when they are already on the requested page,



such as say in the situation one has already requested Web results for classes in the ICS department, but accidentally selected the In4matx department. In that case, there is no other way other than returning to the previous page by using a browser feature rather than a system feature which can be seen in the picture above. I would suggest having the menu being seen on all pages so there is easier change of entries, but I do appreciate the designers displaying the search criteria, so the user knows when there is a need to request reversal of entries, which can also be seen in the picture above.

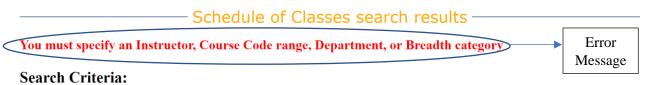
If the user or in this case, the student knows that the error can be undone, it gives them a sense of relief that there is an alternative to redoing the entire entry system over.

Principle #4: Feedback

WebSoc does a good job in providing feedback for common actions, such as the simplest one being displaying the entered search criteria on the top of the result page.



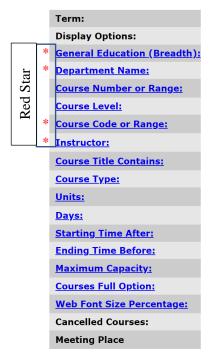
In the event that none of the four specified categories (out of which one had to be entered) aren't entered, hence causing an error. There is an appropriate error message shown on top of the result page with no other output.



• Exclude cancelled courses

Regular feedback helps the user, in this case the student to better understand what to do differently upon reversing of actions. In the first case, when the search criteria is mentioned, the feedback being displayed helps the user to go back and correct and make those entries again correctly. It maintains a strong level of connectivity between the designer and user in terms of error prevention. I believe the designer aimed to help the user understand about what to change when redoing the entries, rather than having a complete system crash.

Principle #5: Control



Display Options:

Course Level:
Course Code or Range
Instructor:
Course Title Contains:

Course Type: Units:

Ending Time Before:

Maximum Capacity: Courses Full Option: Web Font Size Perce

Cancelled Courses:

Meeting Place

<u>Days:</u>
<u>Starting Time After:</u>

General Education (Breadth):

WebSoc is completely run by the entries made by the student user himself/herself. Major control is in hands of the user itself, but there are certain things which were or are in control of the designer. The designer specified the categories in blue (picture on the left) from which the user then chooses. The user also possesses the freedom to choose what they want to see on the results page which is often from the choices offered in the drop-down menu or a simple text entry. I believe that the designer made the system keeping in mind that the student needs to be able to find their classes in shortest time possible and just required one entry minimum out of the four essential ones,

Display Web Results

2018 Fall Quarter

which can be see with a red star in the picture. They can also manipulate the output with some entries such as that of when whether they want to see the finals schedule

Show finals schedule

or not or they want to see the course comments or not, and they also have the option of viewing web results or text results.

Do not filter for General Education (GE) categories

Display Text Results

2018 Fall Quarter

All Course Types ▼

100

3. 4. or VAR

80, 100, 150

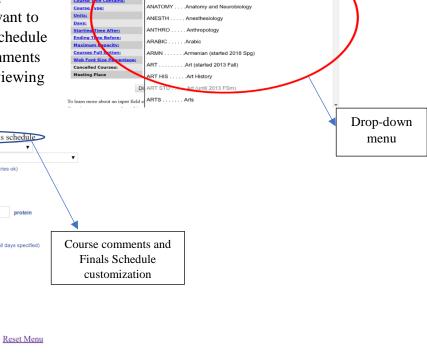
Web or text Results option

Exclude cancelled courses

Display Web Results

Show course comments

Include All Departments



Display Text Results

.Academic English and ESL

African American Studies