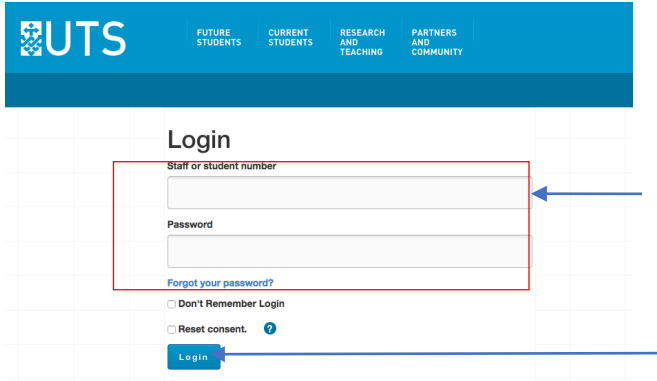


Name & ID:	Tutorial room location:
Tutor:	Date:

**GOAL:** I am an academic who is trying to connect my new laptop to the School of Software’s printer to print some documents.

**Context of use:** Saturday evening, cold night, tired, coughing still, recovering from a severe cold. Interaction was about 30 mins. I am at home, working in my study. I am using an iMac 27-inch late 2015, running El Capitan 10.11.16. Using Chrome browser connected to the Internet

I used Google to look for IT support at UTS. Apparently, I must go to Service Connect. As soon as clicked the link, I was directed to a log-in page.

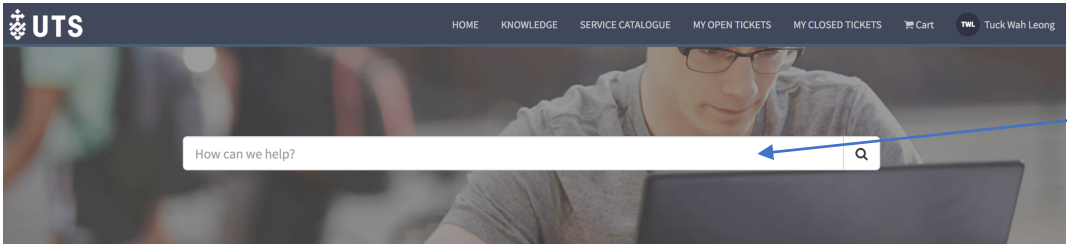


Good **mapping** between texts and boxes to indicate where to enter what necessary information. It is also **externally consistent** with other log-in pages where it is ‘username’ followed by password.

Blue Login button: good visibility due to contrast with the white background

Figure 1: Log-in page for ServiceConnect UTS

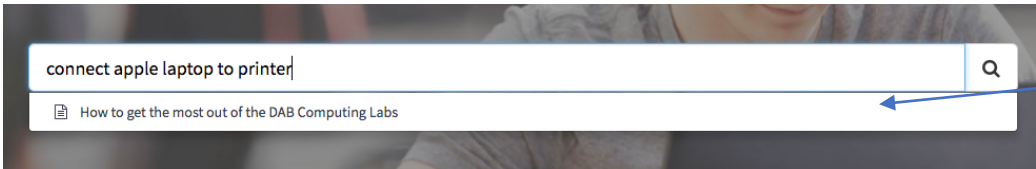
Fig 1 shows the log-in page. The design principle of **Visibility** is used well because the page is minimalistic, uncluttered and easy to see where I can act. I also know what to do because it is familiar. I have encountered this before at UTS sites. The set up and order of ‘username’ followed by ‘password’ is **externally consistent** to all webpages/apps requiring login access. There is also **good mapping** between the texts and the empty boxes enabling me to understand what to enter in each of the empty box. There is **good user guidance**, because the greyed out texts/hints guides the user to choose either a staff or student number. Furthermore, when I run my mouse pointer over the Login button, the cursor turns into a hand and the blue button changes to a lighter blue. The change of the cursor to a hand gives a **perceived affordance** that the button is ‘press-able’. The animation and colour change with the blue login tile is a good example of an **animation feedback** that further informs the user that the button is a point of action. I entered my credentials, clicked the log-in button and logged in successfully. I was presented with the Homepage for ServiceConnect (Fig 2).



Externally consistent to most search bars. Consistent use of icon and user guidance

Figure 2. Homepage for service connect

I looked at the homepage for ServiceConnect (Fig 2). The white search bar stood out -contrasting with the dark picture background demonstrating good application of **gestalt principles**. It is also a sign of **good visibility**, showing me where I can act. The design together with the use of the magnifying glass icon on the right is **externally consistent** with most standard search bars. This shows me that I can enter my search terms here. Furthermore, the greyed-out text also provided hint of where to enter my search terms. This is an example of **user guidance**. Finally, the narrow white space also acted as a **physical constraint** as this restricts me to the only space where I could type my query. I didn’t click on the Knowledge base, service catalogue or request help because I thought ‘search’ might be the quickest way to locate what I need. So, I ignored the rest of the content in that page and typed in the search bar, “Connect Apple Laptop to Printer”



Dropdown suggested search

Figure 3. Entering question into the search bar

As I typed, there was a dropdown which was trying to be helpful to provide suggestions on what I might be looking for (see Fig. 3). This reflects the use of the usability principle of flexibility and efficiency of use to allow users to complete tasks more quickly. However, what is suggested is irrelevant to my needs. I ignored the suggestion and clicked the magnifying glass icon to search. The results, unfortunately, was a page that says, "how to get the most out of the DAB computing labs" with the heading of an article that states: Getting help: support staff on level 3. This is totally irrelevant and I was frustrated. I clicked the back button on the browser and I typed a less specific question "Connect to Printer". I received 7 results. Only one of the results seems relevant – "Adding a printer to my computer".

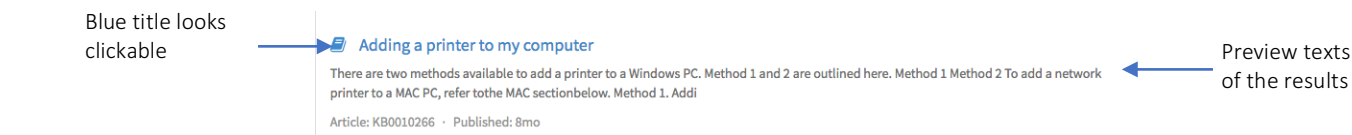


Figure 4. One of the search results

The title is blue in colour. This is externally consistent with a clickable link. This tells me that I can click on here to get more info. There is also a short preview text (this is good user guidance) to give me a hint of what the content is about before I click on it. I clicked on the 'Adding a printer to my computer' and it brought me to the answer page. It is a long page and I looked at the beginning to see if I can get the help I am looking for. Figure 5 is a screenshot of the top section of the page.

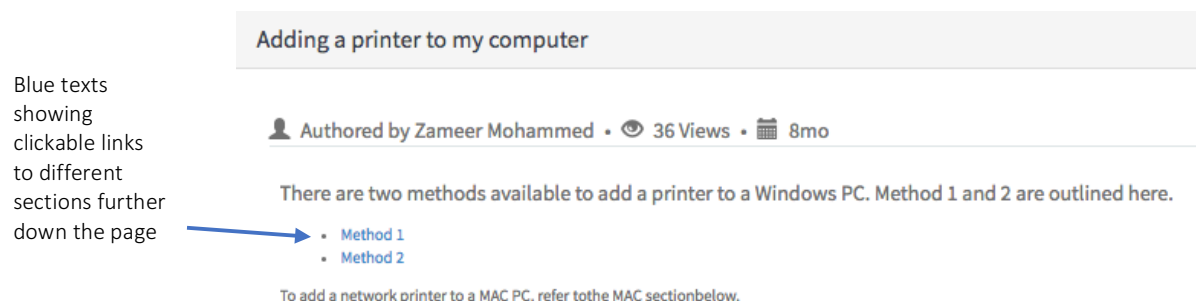


Figure 5. Top section of the answer/guide to adding a printer to my computer

While there are 2 methods to add a printer to a Windows PC, there is only one method to connect a MAC. I noticed that 'Method 1' and 'Method 2' are in blue texts, internally consistent with many UTS texts that are hyperlinks; indicating to me that they are clickable. I did, and it took me to the relevant section further down the page, saving me from scrolling. Furthermore, my cursor changes from an arrow pointer to a hand icon when it is placed over the blue texts. This animation feedback further reinforces to me that the texts are hot spots that are clickable. The appearance of blue texts together with the animation feedback of the cursor turning into a hand icon are externally consistent with most webpages to indicate hyperlinks. Clicking it and taking me directly to the relevant section of the page is also a good example of the usability principle of Flexibility and efficiency of use, enabling users to work faster. However, this feature is not available for me because the information I seek, "to add a network printer to a MAC PC, refer to the MAC section below" is not linked internally. I know this because there isn't a link (blue texts or cursor animating into a hand icon) for the MAC PC information. So, I was disappointed and I had to scroll slowly down seeking the relevant information. There should be an internal anchor link to the MAC PC content right at the top of this very long page so that users don't have to waste time looking for the required content. Doing this will satisfy the usability principle of flexibility and efficiency of use.

Because I am familiar with the Chrome browser when using my Mac, I pressed the shortcut key Command+F to bring up a search window within the page (Figure 6). I then typed in 'MAC' to help me locate the content quicker. The use of Command+F demonstrates external consistency with Microsoft Word for Mac and to bring up the search box for other browsers such as Safari on the Mac. The use of the shortcut key is also a good example of supporting flexibility and efficiency of use, allowing someone who is an advanced user to work faster. I knew that there were 7 results relevant to the search for MAC. The search box itself provides good user guidance with grey text indicating 7 relevant results but unfortunately not all of them are what I was looking for. This is also good feedback. The arrows show good mapping to common conventions of moving up and down the page. The arrows also provide a logical constraint as to what I can do with the search query.



Figure 6. Search field on the Chrome browser with "MAC" as search term

Unfortunately, the information I found regarding how to add my MAC to my local printer were only partly useful but not enough to allow me to connect my laptop successfully to the desired printer. This is because the information provided appears to be out of date and incomplete. While I tried to follow using the diagrams and short instructions, it was soon apparent that what I saw on my laptop interface is very different from what is shown on the page. In terms of usability, the information failed Nielsen's Usability Heuristic 'Help and Documentation'. According to Nielsen (2001) any help and documentation information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large. I would think that ensuring help and documentation are up-to-date will be helpful as well.

So, I decided to try the Knowledge Base instead. I thought I might have found something that might be relevant but when I clicked on the linked, I was redirected to StaffConnect which once again required me to sign-in again. Figure 7 shows the typical staff authentication at UTS.

Figure 7. Authentication page

This is very frustrating because I have already logged on when I started my original interaction on Service Connect. This is a contradiction of Macaulay's (1995) Usability Design Principle of 'Non Redundancy' - The user needs to input only the minimum information for the systems operation. I strongly recommend that a redesign so that users only need to log-in once to reduce frustrations to the user.

I was able to easily and successfully authenticate myself because the set-up is familiar to me. After all, the design is externally consistent with many web-based log in design. The page has a Minimalistic Design (Nielsen's Heuristic) which means that it does not contain information which is irrelevant or rarely needed. It has high visibility with the use of a black and white colour scheme.

Unfortunately, after I logged-in I still did not find the information that could help me connect my Apple Mac laptop to the printer. Now, I was getting very frustrated because I have wasted a lot of time without getting anywhere near a solution. So, I decided to finally try to lodge a technical help ticket.

I clicked on the Service Catalogue link on the top menu bar of the page. Links located in this location are often those that allow you to access the Main Parts of the website. This is externally consistent with most websites. I clicked this because it is the selection that most closely resemble what I was looking for.

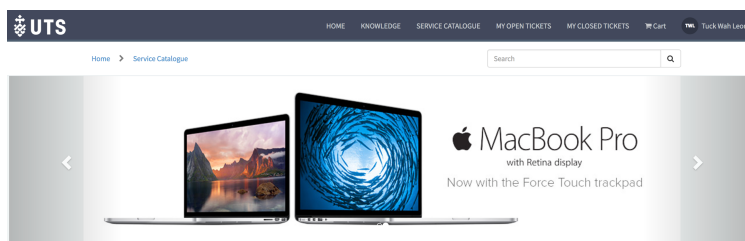


Figure 8. The top section of the Service Catalogue page

The page I was directed to was very confusing. The top half of the page consisted of a continuous animation running with a series of Apple products (iPhone 6s and Macbook Pro) that resembles an Apple Store. I was surprised. I didn't expect to be buying Apple products especially at UTS. The animation was distracting and there was no way of stopping it. Not being able to stop the animated gifs certainly went against Nielsen's Usability Heuristics of providing user control and freedom. The animation was distracting, which contradicted Preece et al's (1994) Usability Principle of reducing cognitive load. Finally, it isn't internally consistent to what I knew about UTS because I didn't know it sold Apple Products. It also doesn't match the real world according to Nielsen's Usability Heuristics. I was so frustrated that I just gave up. There were a lot of good design that supported my ability to navigate around the Service Connect site however, it wasn't supportive. You can say that while it was usability (most parts), it was not useful. The Service Catalogue page was not usable and it was definitely confusing and wasn't consistent with my understanding of UTS.