Level 1 Digital Technologies CAT, 2018

91886.2 Demonstrate understanding of human computer interaction

Credits: Three

INSTRUCTIONS

Write your identification information in the header

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Choose *one* of the Human Computer Interface videos below:

1. **Air New Zealand**
2. **Spotify**
3. **Intercity**

Watch enough of your chosen video to be able to answer the questions.
You can stop and restart the video using the ll (stop) and > (play) buttons.

Use the information from your chosen interface to answer the questions to produce a short report. You must write about the option you have chosen. You may compare this information to additional information and examples from your course.

You cannot use information from the Internet. You cannot position links in your answer. You may use the snipping tool to add small images from the video to support your answers

Your answer may be sampled to compare your answer with answers from other candidates.

You should aim to write between 600 and 1000 words. You can expand (or reduce) the text boxes as needed.

Before saving, **delete the videos**.

Save your work as a **pdf** with the file name: schoolcode-yourNSN-91886.pdf in the header

Your teacher will tell you where to save this file.

Excellence

08

Write a report that demonstrates a comprehensive understanding of Human Computer Interaction.

- Describe the role of your chosen interface
- Identify *four* examples from your chosen interface and show how the examples illustrate Usability Heuristics
- Evaluate your chosen interface using Usability Heuristics.
- Compare and contrast your chosen interface with a different interface below or another interface you have studied. You might consider similar functions within the interfaces, e.g. setting up an account, search functions etc.
- Use your comparison to suggest possible improvements to your chosen interface.

Option 1   *OR*   Option 2   OR   Option 3

<u>Start your Report here</u>

<u>Interface Name: Spotify</u>

1.   Describe the role of your chosen interface.

Spotify is a website that lets users play music from various artists. In Spotify you can make playlists, add songs to your song list and play albums. Spotify also has a queue function that lets you decide which songs are going next in your music.

2.   Identify *four* examples from your chosen interface and show how these examples illustrate Usability Heuristics.

Example One:

When signing up for Spotify if you enter the wrong email address in the confirm email address box Spotify uses Error Correction (which is when a website notices an error and stops the user from making that error and informing them that there is an error). The way that Spotify handles this is by highlighting the box where you are putting your email address <u>red</u>, this colour is commonly used when something has gone wrong making it easy for a user to spot. It also states that the "Email address doesn't match". This is very good but Spotify only tells the user <u>after</u> changing boxes. Spotify also does this when entering an incorrect birthday except telling the user "Please enter valid year". When pressing the enter box Spotify uses Visibility of System Status (which is when a website informs the user when something is happening and what it is) to show it has been pressed by turning the green box grey. It also uses Visibility of System Status by showing a loading wheel (which also is Consistency and Standards (Which is when a website keeps to one thing to not confuse the user and also using other websites and applications that people use so their own website is familiar to use) heuristic as many websites and applications use loading wheels) after pressing the box to show that the website is doing something whereas the user might be confused of what is happening otherwise. Spotify also uses Aesthetics and Minimalistic Design (Which is when a website makes it simple and good to look at helping with navigation and general look of quality) on this page by only using green, grey, white and black and the website is very uniform in its look and keeping to one design.

Example Two:

In Spotify there is a place for users to change their password if desired. When finding it in your account settings Spotify uses a lock symbol next to change password which helps users as a lock relates to what a password is. When changing your password if you mess up repeat new password Spotify uses Visibility of System Status to show the user something has gone wrong by highlighting the box red and underneath telling the user exactly what has gone wrong with "Please verify your password" though I think "Password doesn't match" would make it a lot more obvious to a user what is going on as it that tells you what has gone wrong instead of telling you what you are doing it would also help with consistency and standards as example 1 uses "Email address doesn't match". Once finished you can press SET NEW PASSWORD once pressed Spotify will use Visibility of System Status by darkening the box once it is pressed to show the user it has been pressed. Once this is done Spotify will redirect you to the same page and will have a green box (Which includes Recognition as green is usually tied with good) with small text saying "Password updated" showing the user it has been a success.

Example Three:

When on an artist's page Spotify has a large green box with play on it and a black box with follow on it, it also clearly displays the artists name and lists its popular songs. Spotify uses Consistency and Standards with a 3 dot drop down box which many websites use to show if there is something more 'advanced' a user can do. Spotify also uses this as they keep the media bar down the bottom and categories and recently played on the left side. In the 3 dot drop down box there is a follow option which is not needed seeming there is already a follow box already and just clutters the users experience, there is also an option for the artists radio and their link. In the artists page there is 3 categories. Overview, related artists and about. In related artists Spotify clearly shows their suggested related artists and in about there is a biography on the artist. When pressing play Spotify uses Visibility of system status by changing the colour of the play box when it has been clicked, it also starts playing a song from the artist changing the play button to show it is playing and also has a scrub bar showing where the song is. It also shows the album cover of the song along with its artist and name.

Continuation of examples:

Example 4:

In the playlist section of Spotify there is quite clearly a green box that says playlists. When pressing on this box Spotify will darken the screen and show "Create a new playlist" with a X above it and "playlist name" clearly showing a box with fading text that says start typing. There is also a green done button and a black cancel button. When in this it is not very clear what the X is for which is bad Consistency and Standards as most websites have X as a quit or cancel button but Spotify already has a cancel button making this not very clear what it is for. If the X is another cancel button this would be poor Aesthetics and Minimalistic design as it is cluttering the screen with not needed things. After pressing done Spotify uses Visibility of System status by changing the colour of the box and then redirects you to the playlist's page.

3.   **Evaluate your chosen interface using Usability Heuristics.**

Spotify has a great sign up page. It uses Error Correction very well as it tells the user <u>before</u> pressing done that something is not right and clearly highlights the section in red and clearly tells the user what had gone wrong. Spotify also uses Visibility of system status well as it clearly shows the user they have pressed something by changing the colour of the box, it also has a loading wheel to show that Spotify is processing what has been done not confusing the user wondering if something has happened when they have submitted their sign up details. It also uses has a great minimalistic design keeping the colours green, black, white and grey and having a in center and uniform look.

Spotify has a pretty good password changing page as well. It uses symbols to make it easier for users to navigate. It's visibility of system status is alright as it continues to highlight red the box that something has gone wrong in but I believe that "Please verify your password" isn't very clear for users as they might not know if they are asking for a different password or if the passwords do not match and is not very good for Consistency and standards as well seeming that for emails Spotify used "Emails do not match". It does change the green box saying "Set new password" to a different one when it has been pressed and afterwards telling you that it has been a success in a green box.

Spotify's artist page is quite well designed. It uses a 3 dot drop down on the page which is very good for Consistency and Standards as a lot of sites use this as a feature. It also uses Visibility of system standards well too as when pressing play the song is clearly playing on the media bar with the play button changes and the scrub bar moving as the song plays. It also clearly shows you what song is being play with a picture, name and artist.

The playlist part of Spotify I believe is under par. It does the job but has it's bad use of Consistency and Standards and possible Aesthetics and Minimalistic design really lets it down. The problem is, is that there is a X in the section even though it already has a cancel button, as most websites (Consistency and Standards) either have a X or Cancel button. But this page has both and if it is a cancel button this only muddles the page with unnecessary things (Aesthetics and <u>Minimalistic</u> Design). I do think it is good that Spotify redirects the user to their playlist after pressing done, they also use Visibility of System status as when pressing done it clearly changes colour showing the user that it has been pressed.

4. Compare and contrast your chosen interface with a different interface above or another interface you have studied. You might consider similar functions within the interfaces, e.g. setting up an account, search functions, etc.

I believe that Spotify's sign up page is better than Google's in terms of Error Correction. This is because Spotify tells the user that they have a invalid email <u>before</u> the user presses the done button. Whereas Google tell you afterwards giving the user the message later than Spotify.

I believe that AirNZ's personal details portion of their website uses Error Correction <u>a lot</u> better than Spotify's Password reset. This is because when you type something invalid in any of the fields on AirNZ's page the red bubble that tells you what is going on is a lot more in depth (e.g. "Please re-select gender as current selection does not match title") making it a lot easier for users to understand what has gone wrong. When the password does not match in the confirm password field Spotify only tells the user "Please verify your password".

I believe when playing an artists music from Sound Cloud is better in terms of Visibility of System Status compared to Spotify but Spotify has better Aesthetics and Minimalistic Design. This is because when playing music on Sound Cloud they use a sound graph on their scrub bar to show how loud the music is as it goes along. Spotify had decided to op-out of this as to make their website more minimalistic by decreasing the size of the music scrub bar.

Compared to Intercity, Spotify's Constancy and Standards while making a playlist is under par. When looking at time table's in Intercity there is a X in the top right corner which most websites show to close things. They <u>do not</u> have a secondary closing option like most websites. This is where Spotify goes wrong, as when making a playlist there is an X and a cancel button. Though I am not sure what that X button does, because of Consistency and Standards it makes me think it is another cancel button. If it is not a cancel button it has been poorly labeled making it hard for users who have come from a different application or website. If it is a cancel button this is also bad Aesthetics and Minimalistic Design as Spotify is cluttering the screen with unneeded information/options.

5 Use your comparison to suggest possible improvements to your chosen interface.

I think that Spotify can do even better than Google. They could do this by checking the if the email is valid while the user is typing instead of the user having to press a different box to show them that it is wrong.

I think that if Spotify changed the message for confirm password to "Passwords doesn't match" from "Please verify your password" would help with both Error Correction and Consistency and Standards. This Is because "Password doesn't match" is <u>a lot</u> easier for users to understand and immediately tells them that the password that they have entered does not match the on above it, also if they changed it to this it would be the same format as the sign up screen using "Email address doesn't match" which would help with <u>Consistency</u> and Standards.

I think that Spotify could leave their scrub bar as it is. But if they changed it to have a sound graph it would give users more information. Though doing this may affect their Aesthetics and Minimalistic Design as they could possibly clutter their media bar.

I think that Spotify's playlist creation could be a lot better. All they need to do is remove the X (if it is a cancel button) to better their Aesthetics and Minimalistic Design as having a secondary cancel button is useless and just clutters up the screen. If the X does something else this would be poor Consistency and Standards as users would think it is a close/cancel button as this is what most websites and application use the X for and is a common Standard. All they would need to do to fix this is remove the X and have a labeled button on what it does.

When you have finished, **delete** the three videos and save your work using the file format below.

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Subject	Digital Technology		Standard	91886	Total score	08

Q	Grade score	Annotation
1		The candidate has provided a brief description of the role of Spotify. No mention of Spotify's target audience made.
2		In Example 1, the candidate refers to four heuristics. They give a definition of each heuristic along with an example. There is also evidence of some evaluation (e.g. "This is very good but Spotify only tells the user after changing boxes."). Three heuristics are also referred to in Example 2. The candidate suggests an improvement (Q4 criteria) based on the consistency and standards heuristic. Example 3 also mentions and gives examples of consistency and standards, and visibility of system status. In Example 4, the candidate has also provided some evaluative comments. The candidate has gone above and beyond what was required in the Achieved section.
3		The candidate has provided some of the evaluative comments in the achieved section (Q2). In answering Q3, the candidate also states how well the interface meets each of the heuristics. They also talk about how the interface violates the consistency and standards and possibly the aesthetics and minimalist design heuristic (e.g. "The playlist part of Spotify) Although the candidate incorrectly names a heuristic this does not detract from the overall grade (i.e. this is error correction instead of error detection).
4		The candidate compares and contrasts Spotify's interface with several other interfaces (e.g. Google, Air New Zealand, Sound Cloud and Intercity). The candidate discusses which interface did a better job in terms of the heuristics and provides clear justification.
5		The candidate suggested two improvements, each linked to heuristics. The improvements are reasonable and have been justified by the candidate. They also mentioned that Spotify should include a sound graph as it would give users more information. However, they mentioned that "doing this may affect their Aesthetics and Minimalistic Design as they could possibly clutter their media bar".