

CS2511 ASSIGNMENT

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The website that I will be analyzing is Life Style Sports (<https://www.lifestylesports.com/ie/>). Life Style Sports is an eCommerce website, specializing in sport and casual clothing. They stock many popular sports brands such as Nike, Adidas and Under Armour. They also stock specific sporting goods like gum shields for contact sports, and home workout equipment such as resistance bands and bar weights.

The website is aimed generally at young men and women, with children included. All of the pictures showing off the clothing have younger, athletic models around their 20s and 30s, with a specific kids section stocking child-sized products. In my opinion, Life Style Sports successfully appeals to this younger demographic. They advertise many modern styles of clothes from fashionable and recognizable brands that the younger generation would be familiar with. Many of these pieces of clothing come in bright appealing colours that would be popular among the website's target demographic. Home workout and gym equipment are also sold here which would intrigue a more physically active person to make a purchase.

I would deem this website's usability as being quite good. There is no demand on the echoic memory as there are no sounds played by the website at all. This is a plus, since it leaves more "room" in the short-term memory capacity for the iconic memory to take in the visuals of the page. Life Style Sports makes great use of their website as means of an external memory for their users, meaning that relevant information is displayed on the screen allowing the user to employ information recognition rather than recall. Recognition requires less mental effort than recall, and is around twice as fast and three times as accurate (Nobel, 2001), improving up the user experience of the website. There are many examples of external memory on this website. The user's shopping basket can be found at the top right of the page, and when hovered with the cursor shows every item previously added by the user. When inside a specific clothing section of the website (e.g. Men's hoodies), the name of the section will always be shown at the top of the page. When using the filters, the drop-down menus can be left open to have all the user's settings showing on the screen. All of these techniques allow the user to recognize the choices that they had made previously, rather than recall them. The user never needs to store more than a few items in their short-term memory when using this website. This is good, since the capacity of the short-term memory is limited; Research by Cowan (2001) suggests that a realistic figure of how many items of information stored in the short-term memory is 4 ± 1 .

Life Style Sports' use of interaction styles improve the user experience. A form fill-in is used when you are about to buy something from the website. The form is used to ask the user for contact details for delivery, as well as payment details by card. Each field is labeled with what is needed so the user does not need to spend time recalling what to fill in from memory. The user could even have their details saved by their browser already which leads to the whole form being filled out automatically, saving lots of time. Overall, this type of interaction style is common in eCommerce websites for a reason, as forms are easy to use and very reliable when gathering needed information from the user.

Another interaction style used is menu-selection. The menu at the top of the homepage is used to get to any section of the website. It is laid out well with each section having sub-headings like footwear and clothing to get into the specifics of what the user wants to browse. It is also neatly placed inside some pop up menus to save space on the screen. I would say that the use of menu-selection in this context is very appropriate, since it gives the user a shortcut to each section at all times.

The website is quite easy to navigate through. The landing page shows each general section (Womens, Mens, Boys, Girls), so its straight-forward to start narrowing down where the user wants to go from there. There are also short and snappy descriptions for each main section on the homepage which lets the user scan through for what they want. The Header bar is always stuck at the top of the screen and displays each specific section when you hover over the more general headings like Mens, which makes it simple and quick to move through sections. There's even more filtering options once you enter a section, with options to filter by brand, colour, price, size etc. Each of these options are denoted by check boxes inside of drop-down menus, clearly marking what is being changed and in what way. These check boxes are very appropriate for filtering except for by price, which I will address in my proposed re-design. There are even great quality of life features to clear all filters currently selected, speeding up the process of searching for what you want. Users can find exactly what they want with ease.

I would say that this website is easy to learn to use. It is very consistent with the placement of common widgets on the web page. The header bar stays at the top and the buttons are always where you expect them to be after you see them for the first time. Filtering works the same everywhere too, with the "filter by" section always appearing on the left hand side. As mentioned previously the website makes efficient use of short-term memory which makes it simple to learn as a whole. Short-term memory is the gateway to long-term memory, since information is held in STM while it is being learned. Life Style Sports makes good use of interaction widgets on their website. The widgets on the landing page for each section are clearly labeled. They each have a title (e.g. Mens), descriptive text about the contents (e.g. "Cop the latest drops of clothing & trainers from all the top brands"), with a related picture too. Meaningful widgets facilitate the use of recognition, which is good design and helps the end-user learn the website. Feedback from using these widgets is satisfying. Hovering over the images on the homepage causes them to zoom in smoothly and doing the same to images of products shows alternate angles of the same item. This provides some haptic feedback to the user. Drop downs are quick to open and adding an item to the shopping bag causes a drop down to open from the bag icon, confirming the addition and making the click feel like it has purpose. These widgets are appropriate as they do not inhibit the user's experience of the website's features, and only serve to help the user. The alternate angles of the products can be handy to get the full view of a pair of trousers or hoodie, letting the user be fully informed about the item before making a purchase. If the drop downs were any slower getting through the website would be a slog, and if they were quicker then it would be hard to see where the pop up even came from.

The websites accessibility is only OK, and there are good points and bad points to be made about it. First of all since there is no audio in the website, those with hearing impairments should have no problem using this site. Some use of HTML5 descriptive tags like <nav> (Navigation section) and <header> (Header of segment or page) can be found, but the overwhelming amount of tags are <div>. This is bad design since <div> tags are very general and have no specific function, making it difficult for a screen reader to discern the structure of the web page. A solution to this is to convert all the <div> tags into other tags relevant to their use, like <section> for each thematic section, <h1> for each heading and <p> for each paragraph. This would greatly help a blind person using an outliner to obtain the overview of a web page, which makes the page much easier to explore when using speech and/or Braille.

There are some decent descriptions on images and buttons using the <alt> tag. Some examples include "Men's CSC Logo T-Shirt" for a certain t-shirt and "Select Size: S" for a button to choose the size of an item. Some improvements could be made, like adding more detail e.g. colour of item to the descriptions.

Running the website through WAVE, a web accessibility evaluation tool, brings up some more specific points about Life Style Sports. Eight errors are found on the home page of the website: There is a missing form label, which may lead to the function or purpose of that form to not be presented to someone using a screen reader. There were two instances of multiple labels to one form, which may cause screen readers to read the wrong one. An empty link was found, which would cause confusion for keyboard and screen reader users. Finally there were four broken ARIA references, which are Accessible Rich Internet Applications: a set of attributes that define ways to make web content and web applications more accessible to people with disabilities. The references exist but the target does not exist, meaning nothing will be presented to the user. All of these errors together will cause problems for people with disabilities relying on screen readers to navigate the website.

WAVE also picked up on some visibility problems, specifically contrast errors to do with very low contrast. This is a problem if you have poor sight or low vision, which would cause these low contrast spots to blend together making it difficult to read the text or see whats on the screen. On Life Style Sports often times its the contrast between the foreground text and the background colour, for example when filtering on the left hand side of the screen there is light grey text on a white background, two very similar colours. The colour palette of the website must be changed to accommodate for the needs of a visually impaired user, for example making the text a darker grey or even black to let it stand out to the user.

Another small problem is the vast amount of information placed on each page of the website, describing each product and image in detail with <alt> text. This may make it hard for a blind user to go through a whole page since so much information is provided, but I feel that this is just a problem for eCommerce websites in general. Overall the websites accessibility is good, but has room for improvement.

Most of the website is quite well designed in terms of usability, but an improvement that could be made is found when filtering by price inside a section. Currently on the website, filtering by price generally works the same as by brand or by colour, a selection of check boxes are presented for the user to choose from. It is a little different for price however as instead of a defined choice like the Nike brand or the colour red, a range of prices are assigned to each check box. For example €20 – €49.99 for one box, €50 - €99.99 for another box, and €100 - €499.99 for the last. This check box design may be suitable for some sections, but is a bad choice for others e.g. Men's hoodies have 5, 48 and 2 items in each selection respectively. This is not good design, since the whole selection of products are barely filtered if the user selects €50 - €99.99 (48 of the 55 total items are being shown).

My proposed re-design of this price filter instead uses a double slider from the JQuery JavaScript library. This slider lets the user choose two values, in this case two prices, using the two handles on the slider. These two values are the minimum and maximum price by which the list of products will be filtered by. This addresses the previous problem, since only the desired amount of products are being shown on screen. This alleviates another problem whereby if the user's budget was €150, the user no longer has to see products from €150 to €499.99 and instead can put the second handle to the €150 value exactly. (Note: there seems to be a bug with the JQuery slider where if you adjust one slider then the other slider, the first slider adjusted changes by 1 or 2 without being touched. As far as I can tell this is on JQuery's end, not mine)

In conclusion, Life Style Sports is a well-made website in terms of usability, with some good design ideas contributing to a very positive user experience. The site's accessibility is lacking however, and could do with some work in certain areas to help those with disabilities to use the website.