

Advantages and disadvantages of sensors

[Science](#), [Computer Science](#)



Gui/Wimps in Ms operating systems GUIs and Wimps are used in many Ms operating systems which is a command line for x86 microprocessors. It was the main choice as an operating system for IBM PC-compatible computer systems during the 1980s to mid-1990s. MS-DOS was gradually replaced by system's with graphical user interfaces, particularly Microsoft Windows. Gui stands for graphical user interface. It is a visual way of interacting with computers such as icons or menus.

Furthermore, wimp stands for windows icons menus and pointer GUIs and wimps are basically the same thing apart from the difference in names they are both used for the same things like icons windows and pointers. The audience for the Gui and the Wimps have needs that the company creating the Gui/Wimp need to consider for example they need to be easy to navigate to fulfil the needs. audiences easy and good control over the Gui also it needs to be fast or faster than the previous edition so the users have more of experience. Also the Gui needs to have more. An example of a Gui is windows is for pc's and they really consider the audience this is proved because they are the biggest company designing Guis. They really consider the audience because the interface is really easy to use and provides the use with everything they need. they also listen to the audience and provide them with what they need like on some phones using the windows interface can now use an iris scanner because people with needs and disabilities made this device a necessity. Also the interface is very simple and does not cause any confusion.

The user interface design is essentially the first thing that your target audience notices when opening your website. However, you must remember

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that out of all the aspects of your website the user interface is the only device that is not constantly changing, as we all know content grows and evolves allowing for it to be changed often. But your design behind your user interface pretty many stays constant, this allows for you to create a good look and feel that is known and remembered by members of your target audience. Gui is easy to use for non-technical people from a few clicks on a mouse you can open a program just like that we can calculate totals easy and it is easy to work with. Dragging and dropping is also an advantage in all programs dragging and dropping can be essential. You can drag and drop folders within one another and in games it is also an amazing feature included within the program.

Furthermore, you can also navigate the system quite freely with inputting very little information about. It is an easy setup, and you can use it within no time at all. It also hides all the complexity of starting and using something and only displays the useful information to the users. Furthermore, due to modern day technology disabled people can use their eyes to move pointers around and control things. Now, most of the software use this functionality to make life easier for disabled people. They can use software and websites easily with a few actions there are disadvantages of Gui such as a Gui can take up a lot of memory and you cannot store many pictures and videos and documents because the Gui is taking up too much storage also it takes.

However a long time to develop leaving users with an underdeveloped Gui. Also it can be hard to navigate if the Gui is rushed and not developed properly. Furthermore, in command line tools like MS dos, we perform some

commands which do the work quickly. But if we do the same task in GUI then it takes extra time to complete the task which means that the GUI is a bit slower than a command line tool. Sometimes extra attention is needed to use a GUI such as when you are in a car and you would like music or to phone someone then it requires extra-attention distracting us from the driving. Also it is a high cost meaning the GUI has to sell a lot for them to make back the large sum of money used to design the GUI.

When designing a sensor, the audience must be considered otherwise the product will be a failure. Firstly, the sensor needs to be easy to use for the user. Also people with disabilities need to be able to use the item creating like an iris scanner or a facial recognition scanner. Furthermore, if the company make the sensor hard to use then the user will be unable to use it. An example of an iris scanner is the Samsung s9 they include a iris recogniser and facial recognition this would help disabled people who have disabilities such as paralysis or no hands to use Sensors are used to measure physical movement or touch examples of sensors are heat-sensitive sensors magnetic sensors temperature sensors fingerprint sensors face recognition sensors and iris sensors.

All sensors are used to detect individual things examples of these are heat energy magnetic energy unique parts of a person these are used in security systems mobile phones and tablets cars traffic lights power plants etc. a sensors sensitivity indicates how much the sensor's output changes when the input quantity being measured changes. For instance, if the mercury in a thermometer moves 1 cm when the temperature changes by 1 °C, the

sensitivity is $1 \text{ cm}/^\circ\text{C}$. When the sensor is created the audience needs to be considered for. For example, there needs to be a sensor that can help disabled people like an iris scanner or face recognition. Also they need to make the sensor easy to use and easy to navigate. Also if the company make it complicated it can be harder for people to use leaving people not buying the product due to its confusion.

Advantages

Some advantages of sensors are as follows. Readings taken using sensors are more accurate than a human interpreting data. Furthermore, sensors can monitor information constantly unlike humans who get tired and cannot constantly monitor something. Sensors can respond to changes quickly and will perform the actions programmed to happen such as a burglar alarm when a burglar is attempting to burglar a house or shop. No need for humans to operate the sensor once it has been programmed so then humans can perform other jobs. This can be useful because it can detect radiation levels and set an alarm if they are too high meaning the response time is quicker and there is no need for anybody to be monitoring it.

Disadvantages

However there are some disadvantages of sensors for example if a sensor gives faulty results then it can cause serious issues and can even cause a war between two countries that was caused because of data being wrongly detected such as a missile strike happening an example of this is when the USSR (Russia) before the Vietnam falsely detected a nuclear missile launched by the USA and they were almost ready to fire their own nuclear

missiles in retaliation but luckily a Russian scientist did find that this was wrongly detected and avoided a nuclear war.

Sensors in handheld devices are used worldwide in variety of smartphones such as Apple and Samsung and many other smartphone designing companies they all use sensors as explained in the previous paragraph examples of these are as follows: fingerprint sensor iris sensor face recognition and a touch sensor. They are used effectively to secure your mobile phone and prevent anyone from passing your security features such as face recognition and fingerprint detection. This can also prevent anyone from hacking your phone due to the amount of security features implied within the mobile phone. This can also help organisations from having to spend an excessive amount of time on customer service due to people accessing their phones and deleting or taking private and confidential information. Also proximity sensors are used in phones they detect what orientation the phone is and when there are objects near it triggering a light in some phones. Phones also hold gyroscope sensors which adds more dimension to the supplied proximity sensors.