

Evolution of Operating systems Desktop and Mobile

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Introduction

Humans are becoming more dependent on technology in their everyday life, computers and their interfaces need to be able to keep up with change and help to make their lives simpler. Interaction between computers needs to be easily understood by non-technologically advanced people. Each day the average person can interact with their smartphone upwards of 200 times (Falak, et al., 2010), therefore devices must be designed to allow users the ability to navigate their smartphones with ease, avoiding confusion that in years gone by may have caused people. Through the past 4 decades Operating systems have come along way in in making this interaction simpler with the technology that was available at the time. Operating system interaction is largely responsible for the quick success of personal computers and portable smart devices that users of today own. This report will evaluate the timeline of operating systems, what they had to offer and how users would interact with them at the time of their release.

Evaluation

Desktop Operating Systems

Released in 1982, The first OEM release of MS-Dos is considered the first widely used operating system, It featured a black screen and a command line. In today's modern world, MS-Dos was a marvel, it made using computers simpler and allowed more people to be able to begin using a computer in their own homes. The interaction users had was entirely text-based, Users would be presented with the command line and a simple 'help' command would allow them to view all the common commands that were available. However, more complex commands needed to be learned usually from reading a book or another person teaching. This meant that most uses of MS-Dos were difficult and despite being widely available to the general public and that most people without a computing background found it extremely difficult to get to grips with, despite IBM and Microsoft targeting non-technical groups of people. MS-Dos had support for peripherals that could be connected and interact with the Operating system. For example, a floppy disk drive could be connected and allow a removable floppy disk to interact with the OS. Removable disks allowed the installation of new software, users could install this software and have a whole new visual interface designed for what they were doing. Such as computer games, word processing software and even new graphical operating systems developed by Microsoft designed to run on top of MS-DOS, such as the first Windows 1.0 released in 1985.

Apple Lisa OS launched in 1983 onboard Apple Lisa, Apples Personal computer. Lisa was the first operating system to be available with a graphical user interface. While very expensive and proving not very popular, Apple Lisa paved the way for graphical navigation on computer interfaces, it used a mouse that the user would hold to navigate the interface. It contained, drop-down menus allowing more options to be hidden behind a single word. It brought the ability to have windows, different pieces of software open on one screen that could even overlap, Folders and a file hierarchy system. Even the ability to copy and paste text from one place to another. (O'Grady, 2008) A year later the launch of the Apple Macintosh with the Macintosh System 1 operating system would reduce the price and make a graphical personal computer cheaply accessible to the general public who did not require previous knowledge and understanding of computer programming. System 1 would have a new file browser called Finder; Similarly, the file browser featured on Lisa allowed users to browse and sort their files in virtual folders.

The launch of Windows XP was met with mixed reviews, the interface was updated from previous versions of windows in order to have a more user-friendly and overall rounder look than previous versions. This was not well received by regular Windows users, some even describing it as childish and looking like a toy. Despite this Windows XP, due to its new user-friendly features allowing users to interact easier and simpler than ever before, made Windows XP extremely popular and still to this day used on 0.39% of computers (StatCounter, 2022). Windows XP overhauled the UI of previous windows OS; it allowed the stacking of multiple windows in the taskbar so that multiple open windows wouldn't crowd the taskbar. It also Added a dialogue pop-up when an external device was connected, this can allow people to interact with a helpful popup box, rather than needing to navigate file browsers to find their external device. However, there were downsides to windows XP, one of the most hated updates was Product activation. This required people to use a one-time code to enable windows rather than installing the OS on any pc from a disc. The software would check the computers components to ensure that the software was not being installed on another PC. This was deemed to not be very user friendly at the time and caused Microsoft some backlash, however people learned to get used to this new hurdle and product activation has been around ever since. (Pogue, 2002)

Mobile Operating Systems

Apple in 2007, presented by Steve Jobs, unveiled the Apple iPhone, a sleek modern looking phone. It was touch screen, something that was becoming increasingly common but often required a stylus or has one touch point. iOS, originally iPhone OS, allowed users to interact with just their finger. It would allow pinching of the screen to resize images, files, websites, or Google maps navigation on the touch screen in a very natural and ergonomic way. The iPhone featured one button on the front, this would allow the user to back out of everything and return to home. This would mean regardless of what app the user had open, they would instinctively know how to exit. The iPhones touch screen allowed the ability for each application to have its own layout with unique interaction methods. Since the whole screen was able to be interacted with app developers were free to create any interactable interface they saw fit in any orientation. (Wilson & Fenlon, 2007) (Jobs, 2007)

Conclusion

To conclude, Operating systems have evolved overtime to make user interaction simpler and easier, enabling more non-technical users to interact with computers and mobile devices. Most people now carry smart phones; The developments in human interaction made this quick jump from command line to portable smart devices quickly and easily for the user. Computer operating systems have become easier since the days of having only a command line. Mobile operating systems have become almost as powerful as their desktop counterparts and even now allowing external input that can help users interact in a similar way to desktops. Computers and mobile systems have been keeping up with change and they are helping to make lives simpler for everyone regardless of their technical knowledge.

References

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Appendix

Week 2: Online Information sources for academic work

Summary of your previous attempts

Attempt	State	Marks / 6.00	Grade / 100.00	Review
1	Finished Submitted Wednesday, 5 October 2022, 12:19 PM	4.33	72.22	Review

Formulate Topic

Title: A Review of Interaction between Humans and Computers in everyday life.

Humans encounter many different computers every day, from their phones to Fast food ordering screens. Many different types of computers need to be understood in as little time as possible so that people can use them for their purpose and move on. The front end of these systems should comprise large, self-explanatory images so that little thought from humans needs to go into what the images could be depicting. Plain language should be used, one word under the images will usually suffice. Some Systems include language options so that if users don't speak the default language on the system it can be changed with ease, this should be easily visible with some form of universally recognised symbol so that the user can see it and easily change the language option.

#	Keyword	Synonyms	Alternative Spellings
e.g.	Behaviour	Performance, actions	Behaviour
1	Interaction	Exchange, interactivity, and relationship	
2	Systems	Network, set-up, apparatus	System
3	Human	Person, individual	
4	Computer	Systems, technology, machinery	
5	Everyday	Daily, day-to-day	

<u>Author</u>	<u>Title of Paper/ book/ Website</u>	<u>Year Published</u>	<u>Publisher</u>	<u>URL</u>	<u>Date accessed</u>
Jonas Löwgren	How far beyond human-computer interaction is interaction design?	2010	Taylor & Francis Online	doi.org/10.1076	
Nicole Shechtman, Leonard M. Horowitz	Media Inequality in Conversation: How People Behave Differently When Interacting with Computers and People	2003		dl.acm.org	
Xiangshi Ren	Rethinking the Relationship between Humans and Computers	2016	IEEE	iee.org	
Ulrich Lichtenthaler	Substitute or Synthesis: The Interplay between Human and Artificial Intelligence	2018	Taylor & Francis Online	doi.org/10.1080	
Gerard Jounghyun Kim	<i>Human-computer interaction: fundamentals and practice</i>	2015	CRC Press	google.co.uk/books	

Week 3: Identifying quality information on the Internet

<u>Source</u>	<i>Replace the text below with your information</i>
<u>Source #1</u>	How far beyond human-computer interaction is interaction design?
Analyse the web address of this source. 1. State the URL suffix / top-level domain. 2. State the type of site, e.g. commercial, academic etc.	https://doi.org/10.1076/digc.13.3.186.7338 doi.org redirects to Taylor and Frances online, a reputable academic publishing company
Record any information about the author. Can it be verified?	https://liu.se/en/employee/ionlo66 <i>First author: J Löwgren , Linköping University, Linköping, Sweden</i>
What are the author's qualifications, education or background?	http://jonas.lowgren.info/resume.htm professor of interaction and information design at Linköping University, Sweden. He specializes in collaborative media design, interactive visualization and the design theory of digital materials. M.sc, tech. lic, Ph.D, Docent of human-computer interaction
Does the source quote any statistics / studies? If so, did they cite their source of information?	<i>Yes / No</i> <i>State whether statistics / studies were cited or not.</i>
Is the author's viewpoint rounded or noticeably biased? Give reasons for your answer.	<i>Rounded / biased viewpoint.</i> <i>Give reasons for your answer.</i>
Is the material suitable for university level study, i.e. not aimed at school students or the general public?	<i>Suitable for university level of study / Not suitable for university level of study</i>
Is the information up to date?	<i>Year of publication</i>
Is the information well-presented and accessible?	<i>Well written, associated diagrams, evidence presented, well structured, written in a comprehensive manner.</i>
Go to https://scholar.google.co.uk/ and search for the title of your source – how many times has it been cited?	Cited by 49

<u>Source #2</u>	Media Inequality in Conversation: How People Behave Differently When Interacting with Computers and People
Analyse the web address of this source. 3. State the URL suffix / top level domain. State the type of site, e.g. commercial, academic etc.	https://dl.acm.org/doi/pdf/10.1145/642611.642661 Acm.org an accredited computing society for Computing Machinery.
Record any information about the author. Can it be verified?	https://www.linkedin.com/in/nikkishechtman https://link.springer.com/referenceworkentry <i>First author: N Shechtman, Stanford University, United States</i> <i>Second author: L. M. Horowitz, Stanford University, United States</i>
What are the author's qualifications, education or background?	N Shechtman: BS. Ph.D L. M. Horowitz: B.A, M.A, Ph.D
Does the source quote any statistics / studies? If so, did they cite their source of information?	Yes Yes, sources cited at the end of paper
Is the author's viewpoint rounded or noticeably biased? Give reasons for your answer.	Pretty open. Not biased
Is the material suitable for university level study, i.e. not aimed at school students or the general public?	Aimed at academics
Is the information up to date?	2003, quite out of date
Is the information well-presented and accessible?	Yes PDF document
Go to https://scholar.google.co.uk/ and search for the title of your source – how many times has it been cited?	Cited by 195

Source #3	Rethinking the Relationship between Humans and Computers
Analyse the web address of this source. 4. State the URL suffix / top level domain. State the type of site, e.g. commercial, academic etc.	https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7543433 IEEE or Institute of Electrical and Electronics Engineers are a public association for electrical engineering who publish accredited research papers
Record any information about the author. Can it be verified?	https://xiangshiren.com/ Xiangshi Ren, Kochi University of Technology, Japan <i>B.E, M.E, Ph.D</i>
What are the author's qualifications, education or background?	<i>Professor, School of Information, Kochi University of Technology Director, Center for Human-Computer Interaction, Kochi University of Technology</i> <i>B.E, M.E, Ph.D</i>
Does the source quote any statistics / studies? If so, did they cite their source of information?	<i>Yes references are listed at the end of the paper</i>
Is the author's viewpoint rounded or noticeably biased? Give reasons for your answer.	<i>Yes, he wants people to rethink something.</i>
Is the material suitable for university level study, i.e. not aimed at school students or the general public?	<i>Aimed at general public</i>
Is the information up to date?	<i>Aug 2016, up to date</i>
Is the information well-presented and accessible?	<i>Yes simple PDF using graphics and well formatted</i>
Go to https://scholar.google.co.uk/ and search for the title of your source – how many times has it been cited?	<i>Cited by 30</i>

<u>Source #4</u>	Substitute or Synthesis: The Interplay between Human and Artificial Intelligence
Analyse the web address of this source. 5. State the URL suffix / top level domain. State the type of site, e.g. commercial, academic etc.	https://www.tandfonline.com/doi/full/10.1080/08956308.2018.1495962 Taylor and Frances online, a reputable academic publishing company
Record any information about the author. Can it be verified?	https://www.ulrichlichtenthaler.com/ Professor of Management and Entrepreneurship at International School of Management (ISM) in Cologne, Germany
What are the author's qualifications, education or background?	<i>Ph.D in technology management</i>
Does the source quote any statistics / studies? If so, did they cite their source of information?	<i>Yes, references are towards the end of the paper</i>
Is the author's viewpoint rounded or noticeably biased? Give reasons for your answer.	<i>No, Debating topic open to both sides</i>
Is the material suitable for university level study, i.e. not aimed at school students or the general public?	<i>Aimed are researchers</i>
Is the information up to date?	<i>2018, Up to date</i>
Is the information well-presented and accessible?	<i>Yes well formatted and downloadable in PDF</i>
Go to https://scholar.google.co.uk/ and search for the title of your source – how many times has it been cited?	<i>Cited by 48</i>

Source #5	<i>Human-computer interaction: fundamentals and practice</i>
Analyse the web address of this source. 6. State the URL suffix / top level domain. State the type of site, e.g. commercial, academic etc.	https://www.google.co.uk/books/edition/Human_Computer_Interaction google books hosting EPBU published by CRC Press who is owned by Taylor and Francis Group a reputable publishing company
Record any information about the author. Can it be verified?	https://ieeexplore.ieee.org/author/37404469800 Digital Experience Laboratory, Korea University, Korea
What are the author's qualifications, education or background?	<i>B.S, M.S, Ph.D in Computer science</i>
Does the source quote any statistics / studies? If so, did they cite their source of information?	
Is the author's viewpoint rounded or noticeably biased? Give reasons for your answer.	<i>No, General factual information</i>
Is the material suitable for university level study, i.e. not aimed at school students or the general public?	<i>Yes aimed at students</i>
Is the information up to date?	<i>2015. Yes</i>
Is the information well-presented and accessible?	<i>EPBU format on Google Books</i>
Go to https://scholar.google.co.uk/ and search for the title of your source – how many times has it been cited?	<i>Cited by 179</i>

Week 4: Operating Systems and applications

Q #	File name	File type	File extension	File size
Q1	STfAPTutorial4	Microsoft Word Document	.docx	650KB
Q2	HCI	Image file	.jpg	7KB
Q3	Tutorial4	Basic text file	.txt	1KB
Q4	Tutorial4	Webpage file	.html	1KB
Q5	Week 4	File Folder	-----	6.70MB
Q6	Week 4	Compressed (zipped) Folder	.zip	5.89MB
Q7	JakeCunningham-001211278	PDF file	.pdf	1.32MB

Human Computer Interaction

File | C:/Users/jc0954d/OneDrive%20-%20University%20of%20Greenwich/Documents/Softw

Human Computer Interaction



An image of a representation of Human Computer interaction, Image depicts Human and Robot like hand touching.

