

The Trends in Computer Literacy

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Abstract- Computer literacy is the ability to use a computer for a given purpose. The market requires people to learn specialised talents to pursue specific professional goals. Cloud computing, online education, AI, corporate operations management, information sharing, and the Internet of Things are modern computer literacy trends. Employers seek computer literacy abilities in prospective applicants, thus acquiring these skills will help you get your chosen job.

Index Terms - Computer Literacy; Digital Trends; Technology

I. INTRODUCTION

The ability to use a computer is often regarded as a critical professional skill. Businesses expect their employees to possess fundamental computer abilities since their businesses are increasingly reliant on computers. The usage of computers in the workplace is becoming more popular as a way for businesses to function more efficiently and cost-effectively. There are numerous situations where the use of a computer is favoured over the use of pencil or papers, mostly because of the computer's capacity to replicate and preserve information as well as its simplicity of modification (Frolova et al., 2020).

The ever-increasing use of computers in business organisations has made it essential for individuals to be highly computer literate. However, the question here is that what exactly computer literacy is? And what have been the recent trends in computer literacy? The answers to these questions will provide an overview of what skills and capabilities are required to be computer literate so that individuals can pursue their desired careers efficiently. This paper will explain what computer literacy is, and what are the trends associated with it so that it may enable us to learn the skills that will be advantageous for us in our personal and professional lives (Silber-Varod et al., 2019).

II. WHAT IS COMPUTER LITERACY

Computer literacy can be defined through multiple perspectives due to which it is complicated to exactly define computer literacy. A software developer may use a different definition of computer literacy, and a particular user of computers may define it according to his preferences. However, the most common explanation of computer literacy is “the abilities and skills of users that help them in using a computer or other technologies.” Computer literacy corresponds to the ability, skills, and knowledge that are required for the fundamental use of the internet, software, and hardware. In the modern business and academic environment, these skills and capabilities are valued since most operations and activities in business and academics are reliant on technology and computers (DiSessa, 2018).

Employers around the world are looking for computer skills in potential candidates since most activities and operations of their businesses are reliant on computers. A business manager should possess the skills to use a computer since most operations of a business rely on different computer applications. In the contemporary era, where most educational institutes are supporting and encouraging online education so that they can educate more and more students, regardless of where they are, computer literacy has become crucial. A recent survey shows that around 68% of American employers consider computer skills as essential skills for hiring candidates (Petranová et al., 2017). The recent pandemic of Covid-19 has enabled 80% of business organisations around the world to employ digitalisation for their survival and their customer interactions.

Consequently, it is important in the modern world to possess the skills and capabilities to use computers. However, it is equally important to observe the trends in computer literacy so that it can be convenient for most individuals to gain the skills according to the

contemporary era to enhance their employment opportunities. So, what are the trends in computer literacy? The following explanations will help you in gaining an understanding of these trends and how these trends are influencing the modern world (Tang et al., 2020).

III. CLOUD TECHNOLOGIES

Cloud technologies have become common in the modern environment since they provide organisations with opportunities to share data and information through cloud servers. Technology has enabled business and academic organisations to produce a substantial amount of data and information. Internet of Things has been contributing to the development and production of data and information. Cloud technologies allow individuals and organisations to manage data and information easily in the modern world. Business organisations rely on cloud technologies to support the remote work of their employees since they provide an opportunity for workers to access important data and information from every part of the world (Frolova et al., 2020).

The popularity and prevalence of cloud technologies have brought a revolution in the modern business world. An employee working in any part of the world can access his desired information with just a single click. Consequently, it has become essential for individuals to learn how cloud technologies work and how companies use cloud technologies to support their operations. However, it has become a concern for business organisations to secure and protect their data and information on clouds since any threat can deprive organisations of their imperative and confidential data and information (Stopar & Bartol, 2019).

It is not just essential for individuals to understand the working principles of cloud technologies, but it is equally important to understand the infrastructure that can be used by companies to protect and secure their confidential data and information. Cloud computing makes it simpler to retrieve papers, database archives, programs, and the company's website. For remote workers, it's a breeze to integrate into the company's cloud-based platform. Only a computer and the proper security procedures will be

needed by your staff to connect to the system. Consequently, companies are looking for individuals who are literate in terms of using cloud technologies (DiSessa, 2018).

IV. ONLINE EDUCATION

With the advent and emergence of the internet, the ways of educating students have also changed. Today, students from any part of the world can get admissions in the universities and colleges of their desire through their distance learning programs. Online education has become a norm in the contemporary world, thanks to the internet and technology. Students in the modern world do not need to sit in conventional classrooms to learn since they have an opportunity to get involved in the learning process through conference calls. Through digital platforms, students can now access the study materials and lectures without any hassle. Teachers and students can provide feedback to each other to enhance the learning process. Students can submit their papers, assignments, and projects to their teachers through digital platforms (Petranová et al., 2017).

The technology has allowed teachers to provide efficient feedback on students' works. Consequently, it has become essential for students to be computer literate so that they can effectively use digital platforms to access the data and information shared by their instructors. Computer literacy is not only crucial for students, but it is equally crucial for teachers who must upload course materials and lectures on digital platforms, to have computer literacy. In the modern era, students need to gain skills and capabilities to use computers so that they can be able to access the programs that can enable them to pursue their desired careers (Tang et al., 2020).

The recent pandemic has made it essential for educational institutes to focus on online education to comply with the restrictions imposed by governments in terms of maintaining social distancing. However, it is estimated by the educators that online education has become the reality of the modern environment that can make education cost-effective for students.

Subsequently, students and teachers need to enhance their computer literacy so that they can take the advantage of perks that are offered by online education (Bhongade & Sarode, 2018).

V. BUSINESS OPERATIONS

Have you ever wondered why business organisations are heavily relying on computers and technology to sustain and maintain their operations? Is it only because computers help them in the automation of their business process or are there other reasons for these shifts? Companies in the modern era operate in a dynamic environment where they must face competition from other companies. Technology is a competitive advantage in the modern world since it enables companies to save their costs associated with production and other processes. Companies use technology and computers to save the wastes in the production process and technology can allow businesses to understand the optimal level of production that can allow businesses to save the costs of productions (Noguerón-Liu & Lammers, 2020).

Most business organisations use applications to compare and manage the data and information to make important business decisions. Technology and computers allow business organisations to make use of data and information for making certain projections regarding their sales and market circumstances. In short, technology and computing allow business organisations to make the exact calculation that can save a substantial amount of money for them. Consequently, employers around the world are looking for candidates that are computer literate so that they can use technology to the advantage of their organisation without any hassle (Goyal et al., 2019).

It has become important for individuals to be computer literate so that they can have an idea of using computers and applications that are used by most business organisations. No business can survive in the modern world without employing technology. Employees who can use computers and understand the technology are regarded as efficient employees by employers. Individuals need to possess the fundamental capabilities and skills for using a

computer since these skills can play a major role in their employment process (Bhongade & Sarode, 2018).

VI. ARTIFICIAL INTELLIGENCE

It may be simpler to explain how significant artificial intelligence (AI) is to our everyday lives, corporate operations, and community by stating what areas it hasn't impacted. Every aspect of our life is being influenced by intelligent technologies, which may help us become more efficient and enhance our talents. It's impossible to envision existence without artificial intelligence. To say that machines have artificial intelligence is an understatement. Computers can monitor, evaluate and gain from facts and errors much in a way our biological systems can. There are several forms of artificial intelligence, especially learning algorithms. As a result, this technology has had a major impact on consumer items, medicine, science, production, economics, and commerce, among other fields. Due in part to the massive quantity of data we produce and the processing power at our disposal, artificial intelligence has been on the rise recently (Noguerón-Liu & Lammers, 2020).

Business organisations and educational institutes make certain projections based on the information and data they possess. Artificial intelligence can allow business organisations to innovate and beat the external competition from other organisations. Most business organisations in the modern era are interacting with their clients through the internet. It has become important for business organisations to hire candidates who can help them in reaching more and more customers. Business organisations are using SEO tools to make their websites readily accessible to their customers. Consequently, it has become essential for individuals to understand how technology and computers are contributing to the development and progress of business organisations through artificial intelligence (Goyal et al., 2019).

Artificial intelligence is being by business organisations to automate their process so that they can save time and money. In the modern era, individuals need to learn the innovative and creative ways through which computers can help companies

in the automation of their processes. Consequently, artificial intelligence has become an important trend in computer literacy in modern times (Silber-Varod et al., 2019).

VII. E-COMMERCE

The recent pandemic of Covid-19 had adverse influences on all sectors of the economies around the world. However, it is claimed that the sales of online retailers have increased since the emergence of the coronavirus. Most retailers around the world are focusing on their evolution to offer their products online to their customers to survive after the recent pandemic of Covid-19. The e-commerce sector has been playing a major role in most economies around the world. A recent study shows that around 42% of consumers have shifted to online shopping since it offers convenience and eases the shopping experiences of consumers. Consumers can shop from the top sellers around the world with just a single click. In the era, where retailers are rapidly getting into the E-commerce sector, it is essential for business organisations to have computer literate individuals who can support the sales of a business as well as can provide excellent customer services to consumers (Costa et al., 2017).

In the modern era, the customer services department plays a fundamental role in the success of a business since this department interacts directly with the clients on behalf of a business. In a traditional retail business, customers could interact with the management of a business at the store. However, in E-commerce business, a business may not require having a physical location since consumers can visit a website or mobile application to select and purchase their desired products. In this scenario, it has become more crucial for business organisations to provide excellent customer services to their consumers so that they may not face any difficulties in their shopping experience (Rasskazova et al., 2018).

Consequently, the e-commerce sector requires business organisations to hire individuals who are computer literate so that they can support their customers effectively through computers. Computer literacy allows individuals to gain skills and

capabilities to use software, hardware, and the internet to enhance the customer relationship management of business organisations. Having individuals who can use computers will allow the business organisation to effectively respond to the queries of customers. Consequently, employers from the e-commerce sector are looking for individuals who are literate in terms of managing the e-commerce business and supporting consumers of a business organisation (Korneeva et al., 2020).

VIII. INTERNET OF THINGS

Can you imagine how massively the internet is influencing our lives? Look around and you will find numerous gadgets and instruments that are connected to the internet. Smartphones, laptops, televisions, smartwatches, printers, running machines, health monitoring instruments and numerous other gadgets can be found around us that are examples of the Internet of Things. The benefits, developments, advancements, and uses of the Internet of Things have been widely discussed in the media during the last several years. Three decades ago, the idea of a worldwide network of millions of different appliances working together automatically was first proposed; nevertheless, its fast growth just began in the last few years (Park et al., 2020).

Human capital may be shifted to more difficult jobs that need personal abilities, such as out-of-the-box brainstorming, owing to IoT solutions. Consequently, the number of employees may be decreased, resulting in a lower cost of doing business. Another important advantage of the connectivity of connected devices is the automation of many operational aspects, such as managing inventory, shipment tracking, energy, and alternative materials management. Reduced electricity and water usage may be achieved via the use of networked monitors, which automated programming and tracking. There are several ways to reduce energy and water use, such as using motion sensors in the workplace. An IoT-enabled business has more services or goods to offer and better quality at the same price as its rivals because of the enhanced efficiency (Park et al., 2020).

An option would be to undertake more demanding duties based on the production complexity, duration,

or volume. A company's ability to compete in the marketplace and entice new business partners is enhanced when it implements innovative technology solutions. Consequently, it has become essential for a business organisation to look for potential candidates who have a good idea regarding the Internet of Things and who understand the importance of using data and information for the advantage of a company. The learning and understanding of the Internet of things have become prominent trends in computer literacy since it is essential to understand who different connected machines can generate data and information for a company and how a company can use such data and information to make important decisions for the business (Ebert & Counsell, 2017).

IX. COMMUNICATION AND INFORMATION SHARING

It is another important trend in computer literacy to determine the practices used by a business organisation to enhance communication and information sharing. The emergence of the internet has allowed the business organisation to communicate easily with other businesses around the world. The prevalence of the internet has contributed to making the world a global village where information and data can be transferred from one place of the world to the other within a few seconds. A business organisation needs to employ computer applications that can provide them with an opportunity to enhance communication within different departments. It is easy to comprehend that different departments operate within a business that has different functions. All these departments need to communicate effectively so that they can head in a defined direction to accomplish the goals and objectives of a particular organisation (Korneeva et al., 2020).

Different computer applications are available in the market for a business organisation that allows all departments within an organisation to work closely with each other to accomplish the goals of a company. Some applications are free and for some applications, a business organisation may have to pay the price. These computer applications allow the business organisation to share data and information in real-time making it comprehensive for managers and

employees to make effective decisions. Managers and employees can use these applications to view the progress on different projects and may share their feedback with colleagues in real-time to enhance the agility and speed of a particular project. Consequently, it has become essential for individuals to have the skills and capabilities to use computers and technologies so that they can effectively use such computer applications. Business organisations must hire employees who can creatively perceive the ways to enhance the communication within different departments to enhance the performance of their organisation (Costa et al., 2017).

CONCLUSION

Computer literacy corresponds to the knowledge of using and operating a computer for a specific purpose. The trends in computer literacy are the trends in the market that require individuals to develop specific skills to pursue a specific career goal. Cloud technologies, online education, artificial intelligence, business operations management, information sharing, and the Internet of Things have been some of the recent trends in computer literacy. Gaining and developing these skills will ensure that you will pursue your desired careers since employers look for these computer literacy skills in their potential candidates (Stopar & Bartol, 2019).

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