



Impact of Advance Digital & Mobile Technology on Work Culture

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Abstract

This article is focused on the use of the advance digital technology by the personals and its impact on the work culture of the organization. Digital technology has transformed nearly every aspect of modern life. Travel, work, shopping, entertainment, and communications are just some of the areas that have been revolutionized in recent decades. It's now rare to find an electronic device or piece of machinery that doesn't incorporate digital technology in some way. Digital technology means that devices can be more compact, faster, lighter, and more versatile. Huge amounts of information can be stored locally or remotely and moved around virtually instantaneously. Even the term "information" has expanded to include media such as photos, audio, and video, and no longer refers to just words and numbers. This article attempts to interpret the progress, direction, and purpose of current research on the effects of technology on work and organizations. After a review of key breakthroughs in the evolution of technology, we consider the disruptive effects of emerging information and communication technologies.

Keywords: Digital Technology, Internet, Email, Social Networking Website, Cloud Computing, Web & Mobile Application.

1. Introduction

Technological advancements have entirely reshaped the organizations by making their business processes highly integrated, and more streamlined. This is more so in case of small or medium enterprises. Run by a few people, small businesses need technology like nothing else. Technological advancements have facilitated these businesses in running their tasks smoothly and performing well than ever before. Technology in the workplace is like a facilitator that makes an action or process easier to keep the whole workflow smooth and on track. Facility management software such as not long ago, companies were in a mess as they had to deal with a lot of paperwork, meetings had to be held in rooms, travel expenses were incurred on client meetings and communication across the organization was not so easy. From the ways of communication to the methods of solution, technology has helped businesses come a long way.

All the operational and communication issues have now been simplified and streamlined with the help of new technology. Businesses no longer need to take a pause in any of their tasks.

The smart mobile phone and various digital applications on it accelerated the overall communication process in the organizations.

Cell phones have made communication easier both inside and outside the workplace by allowing employees to receive important calls without having to spend every moment behind a desk. They are also useful for getting in touch with sales staff and other professionals who spend most of their work hours outside the office. However, there are numerous disadvantages of cellular phones when they're used in the workplace, from disrupting work to just plain wasting time.



Fig.1.1 Advanced Digital Technologies (ERP, MOBILE APPS & CLOUD COMPUTING)

2. Objectives:

- To study the various digital technologies used in the organizations.
- To study the impact of the advance digital technologies implemented by the organization.
- To study the impact of the personal gadgets including mobile phones and web applications used in the organization by the employees.

3. Digital Technologies in India

India is the 7th largest country in the world and a dominant power in South Asia. With a population rapidly approaching 1.3 Billion it is the second most populous country in the world. India's economy worth US\$ 2.2 Trillion is the world's 3rd largest economy in terms of PPP. It is

rapidly growing at a rate of 7-8% per annum and is estimated to overtake the US by 2045. The Services Sector contributes roughly 56% of the GDP followed by the Industrial Sector with 26% and the Agricultural Sector with 18%. Major industries in India include Information Technology, Textiles, Real Estate, Pharma, Petroleum, Manufacturing, Mining, Telecommunications, etc.

With 451 million monthly active internet users at end of financial year 2019, India is now second only to China in terms of internet users, according to a report by Internet and Mobile Association of India (IAMAI).

The report said that of the 451 million monthly active users, 385 million are over 12 years of age and 66 million are in the age bracket of 5 to 11 years, who access Internet on the devices of family members.

The report stated that in terms of absolute numbers, urban India with 192 million users had almost the same number of users as rural India. However, in terms of percentages or penetration, given the disparity of population distribution in urban and rural India, urban India had a considerably higher penetration level. WhatsApp has amassed more than 400 million users in India, the instant messaging app confirmed today, reaffirming its gigantic reach in its biggest market. According to the data presented by we are social in the Global Digital Report 2019, in January 2019 there were over 7,6M Twitter users in India. The number is based on Twitter's addressable advertising audience.

4. Advantages of Digital Technology

1. Social Connectivity

Digital technology makes it easy to stay in touch with friends, family, and work remotely, even if you are in another part of the world. You can communicate by words, video, audio, and exchange other media. Websites, apps, and software have all been created to help users to socialize. With social media, messaging, texting, laptops, tablets, and mobile phones, nobody need feel isolated in the digital world. News and local events update users regularly.

2. Communication Speeds

Internet speeds have increased exponentially since the early days of dial-up. Ever faster broadband enables the transfer of large amounts of information across the web almost instantaneously, making it possible to stream video and audio in real time, send large data files, and access data from virtually anywhere in the world. Traditional media generally takes much longer.

3. Versatile Working

The nature of work has been transformed by digital technology. Increased connectivity options mean that many people now have far more opportunities for working from home, as remote working becomes increasingly common. Many jobs can now be done from hundreds, or even thousands of miles away without difficulty. Without the need for all workers to be present in the same building, many other flexible working practices are now possible.

4. Learning Opportunities

Anybody with access to the internet now has access to a huge proportion of the world's knowledge over the web. Lessons and courses can now be delivered virtually online. Communication advances mean that you can now easily communicate with most of the world's population and learn directly from sources, for example if you are trying to understand foreign events, or learning a new language. Digital technology can also be easier to use for people with disabilities and often give them equal access.

5. Automation

Digital technology is increasingly making machines smarter. In some cases, the machines no longer need humans to operate them, freeing up workers from often boring tasks for more interesting pursuits. In other cases, smarter machines mean better standards of safety, or a better experience for the user. Products and services drop in price as the technology develops and becomes more common. Many tasks can now be done directly by customers, rather than having to be done through another person acting as an intermediary, for instance, booking a holiday.

6. Information Storage

Digital technology enables the storage of massive amounts of information in relatively small spaces. Large amounts of media, such as photos, music, videos, contact information, and other documents can be carried around on small devices like mobile phones. As well as physical locations, data can also be stored online, enabling it to be accessed from any device which has internet access.

Creative options for editing videos and photos have increased exponentially with the advent of digital technology. The technology is more affordable and easier to use too, what used to require a studio with expensive equipment can now be done at home

7. Editing

One of the great advantages of digital technology over traditional media is that the information can be easier to edit or manipulate. Word processing has brought about a revolution in the editing of text. Video editing, which used to require expensive studios and equipment, can now be done on a laptop in a bedroom. All sorts of photographic effects are now available, as well as the ability creatively alter images.

8. Accurate Duplication

One of the great things about digital technology is that it enables the exact duplication of media. For instance, you can write a work report and email it to multiple recipients, or you can distribute multiple copies of photos to family and friends. Breakthroughs in technology are now happening in the field of 3D printing, which looks set to radically transform our world.

9. GPS and Mapping

Finding your way around used to involve referring to a paper map, but digital combined with satellite technology has transformed travel. GPS services can now pinpoint your position accurately, update you on traffic jams and road closures in real time, and give you lots of up-to-date information such as time of arrival at your destination, as well as alternative routes. If you want to find a gas station or drugstore that's open, that's easy too.

10. Transportation

Many trains and airplanes already rely to an extent on digital technology. Road vehicles, such as cars and trucks, will become fully automated in the not too distant future. Accessing timetables, as well as booking planes and trains now often takes place online. Passports contain digital chips that hold information, enabling self service machines to speed up the process of checking in and passing through customs.

11. Low Cost

Aside from paying for an internet service and the basics like a modem, much of what the digital world offers can be accessed for free. Sending an email, communicating via a video link-up with family, and surfing the internet generally cost nothing. It can provide opportunities for low cost self-education, setting up a business, buying and selling items, or earning money online.

12. Entertainment

The entire entertainment industry and the way that people amuse themselves has been radically transformed. Many people get their fun from online social media, or playing computer games. Traditional media has evolved too, as televisions and broadcasting have become digitalized, along with radio.

Traditional sources of news such as newspapers have seen a dramatic decline in recent years, as digital media takes over. Many people now get their news via social media, as well as directly from news websites.

13. News

Increasing numbers of people get their news online, either via a website or social media. Even traditional news media, such as TV and radio, have been digitalized. People have more options for news sources than ever, and most of it is available 24 hours per day. Independent and do-it-yourself journalism is now very common, as well as ordinary people taking photos and videos on their phones at locations where a news event is taking place.

14. Warfare

Advances in technology mean that wars can increasingly be fought remotely, avoiding the risks associated with having soldiers physically present on or above the battlefield, where they are prone to injury or death. Drones and missile technology are particularly reliant on digital technology to work effectively, but most machinery is being gradually becoming increasingly automated.

15. Banking and Finance

There's no doubt that digitalization has led to a revolution in financial matters. Online banking done either through a laptop, tablet, or phone app is now the norm. Bank users can now check their incoming and outgoing payments remotely, as well as arrange money transfers and bill payments. Outside of banking, other financial matters, such as buying and selling currency and shares can be dealt with online. Transferring money between accounts both nationally and internationally has also seen a great deal of innovation in recent years.

16. Smaller Sized Devices

One general effect of digital technology that is almost taken for granted is that devices can be made much smaller. The phones that we carry around are mini-computers, for example, capable of surfing the net, working as calculators, planning journeys, capturing and playing photos, audio, and videos, providing games for our amusement, as well as operating as phones and having other functions. Smaller devices generally means more portability and less space used up in living spaces.

5. Disadvantages of Advanced Digital Technology

1. Data Security

Digital technology means that vast amounts of data can be collected and stored. This can be private information concerning individuals or organizations. It can be very difficult to keep this

data safe. Just a single breach can mean vast amounts of private information going into the hands of criminals, terrorists, foreign enemies, or other malign entities.

2. Crime and Terrorism

The internet is fertile territory for malevolent forces to operate, thanks to its international nature, large scale, and the relative anonymity that users can enjoy. Examples of this include: terrorists using social media to promote themselves and encourage others; drug dealers using the dark web to trade; pedophiles using chat rooms and other places to exchange photos, videos and other information; and authoritarian regimes attempting to sway or distort elections in democratic countries.

3. Complexity

We no longer understand the devices and machines that we interact with on a daily basis. Fixing a modern car now means interacting with a computer, it is no longer just mechanical. Using a phone can involve tackling all sorts of complicated settings. Minor glitches in a laptop can cost both time and expense.

4. Privacy Concerns

It's become much harder to have personal privacy in the digital world and that's on top of the dangers of your personal data being stolen or sold. For instance, everybody has the ability to take photos and video footage on their mobile phone, then post it online. Employers can search for people online and maybe find unflattering photographs, or see them expressing controversial opinions in social media or blogs. Digital cameras watch and record our movements in public places. Minor indiscretions can now haunt an individual for life when they're posted on the internet. Controlling your personal information is very difficult and sometimes impossible.

5. Social Disconnect

There is an increasing tendency for people to socialize and communicate via digital devices rather than through real life contact. This can easily lead to a sense of disconnect and isolation. Human beings have evolved over thousands of years to have real contact, taking that away is a bad idea. Studies have suggested that the lack of real life contact is causing depression and other forms of mental illness in many people.

There are a number of psychological studies suggesting that the digital world is causing an increased risk of mental illness. Examples include reliance on social media for contact, online bullying, and work stress through information overload.

6. Work Overload

Many modern workers spend their days trying to keep up with the hundreds of emails that they are sent each week, all of which require reading and some of which require replies or action. Texts from colleagues in the evenings or on the weekend can mean that people never fully escape work. Organizing the vast amount of digital data acquired in some jobs, such as minutes of meetings, training videos, photographs, reports can also be a huge headache.

7. Digital Media Manipulation

Digital media such as photographs, audio, and video are easy to edit, making the manipulation of media widespread. It's not always easy to tell what is real and what is fake anymore. Photographs can be altered using editing tools such as Photoshop. Digital audio and video can be doctored.

8. Job Insecurity

It used to be that you had to be physically present at a workplace to do a job, but now many work tasks are performed remotely via the internet. That means a Third World worker in a low wage economy can undercut you and take your job. Increasingly, humans aren't needed at all for many tasks, as computers gradually replace them. Driving jobs, for instance, will disappear soon as vehicles become self-driven.

9. Plagiarism and Copyright

Digital media is remarkably easy to copy and reproduce. Copyright laws are increasingly hard to enforce, as the music and movie industries have discovered to their cost. School kids can copy and paste their homework projects without really learning anything.

10. Anonymity and Fake Personas

Digital technology provides wide scope for users to hide their identities. Studies show that people are much more likely to behave anti-socially if they don't think that there will be any consequences. Bullying, trolling, stalking, threatening, and insulting behavior have all increased dramatically with the rise of the internet. People assume fake personas for the purposes of scamming and defrauding. Pedophiles use fake personas to gain access and befriend children.

11. Over-reliance on Gadgets

Reliance upon mobile phones, computers, and other digital gadgets has become common. Many people have all their contact information, photographs, texts, and other personal information on their phones. If they lose them, or the gadget breaks or runs out of power, then they are in trouble. Basic living skills, like finding one's way around the streets of a town, have been replaced by taking directions from a GPS system.

Computer gaming addiction can cause multiple problems for users caught up in it. Consequences include negative effects on social life, finances, academic achievement, sleep patterns, as well as emotional and health problems.

12. Addiction

Social media, computer games, messaging, and dating websites can all be addictive. Games want you to play so that you will buy the next version. Websites want you to interact so that they can bring in advertising money. Users end up wasting vast amounts of time and hemorrhaging money for low return.

13. Second-hand Living

Many people no longer experience real life events directly. Music concerts or live shows are videoed on mobile phones, events are photographed, audio is recorded. Media is uploaded onto social sites. Life becomes something that is experienced through the prism of digital media rather than at first hand.

14. Organization and Storage

Digital media can be very difficult to organize. Photos and music, for instance, can be located on numerous devices, such as mobile phones, tablets, laptops, and portable hard drives. Individual items can be hard to find, easy to accidentally delete or lose, and the device they are stored on can be lost, stolen, or suffer catastrophic malfunction. Digital media can be difficult to store and maintain long term. File formats change over time. In some instances traditional media can last longer than their digital equivalent.

15. Depersonalized Warfare

Digital technology means that weapons can be deployed anywhere in the world without any human military presence. Drones turn war into a computer game. Intercontinental missiles follow streets and landmarks in foreign countries remotely. Satellites photograph and video from space.

16. Longevity

Digital gadgets typically have a short lifespan and become archaic quickly. As the technology advances at a pace, devices and machines quickly become unusable because they are too slow, incompatible, or are simply superseded.

Much of life's tasks can now take place without leaving the house. The downside to this is that society is becoming increasingly depersonalized.

17. Social Depersonalization

Society continues to become more and more depersonalized as digitized machines replace humans. People shop online, do their banking online, pay bills online, and increasingly work online. Transport is also set to become automated, which will result in taxis and delivery vehicles being driver free.

18. Disadvantage of using Cell Phones at work place

- Disruption of Workflow

One of the disadvantages of smartphones in the workplace is that cell phone communication, both in the form of personal calls and work-related calls may disrupt an employee's work flow since it increases the perception that your employees are always available to accept calls.

As every worker knows, one of the disadvantages of telephone calls of any kind is that they disrupt whatever you're doing. Adding cell phones to the mix adds one more disruption. An employee who has to stop work tasks throughout the day to answer phones may suffer from decreased productivity, which can cause the employee to miss deadlines or put in extra hours to complete projects on time.

- Difficulty Monitoring Calls

Some small businesses have a vested interest in monitoring calls made during work hours. It can help reduce personal calls and provide information you can use to coach employees on communicating with clients and business contacts more effectively. Setting up a call-monitoring system on a traditional land-line network is relatively simple. However, it is not typically possible for small business owners to monitor communications via cell phone.

- Balance Between Work and Life

Employees who receive work-related calls outside of normal work hours, whether on a company-provided phone or a personal cell phone, may feel an imbalance between their work and personal lives. That's one of the disadvantages of mobile communication. It can be difficult for an

employee to enjoy time away from work when her duties spill over into family, social and rest time. This can increase employee stress, reducing the ability of employees to manage work tasks effectively.

- **Misuse of Cell Phones**

Cellular phones allow employees to communicate through media other than voice. Enhanced technology allows the transmission and receipt of text messages, videos, pictures, emails and instant messages. Employees who have access to other employees' cell phone numbers may use cellular communication to send harassing or inappropriate texts, emails and instant messages.

They may also send communications, pictures and videos that the recipient finds offensive or unprofessional. This can create workplace discord and increase the need for employee discipline and company-wide discussions about harassment policies.

Concerns about privacy are also valid. The more people conduct personal business and socialize on their cell phones, the more likely that private issues will be overheard or seen. You know you have enough opportunity for employee gossip without adding cell phones to the mix.

- **The Time Adds Up Quickly**

Another of the disadvantages of cell phones being nearby is that it's so tempting to use them. People admit to using their cell phones during the workday to check their personal email and get on social media. Maybe a quick internet search on websites they can't use on work computers. Just a few minutes here, a few minutes there adds up to nearly an hour of personal cell phone use at work each day. From an employer's point of view, that's wasted company time.

6. Conclusion

The proper and wise use of technology is very good for the organization growth as it gives a competitive edge to the organization. The technology are flexible, easy to use, work with accuracy, provide automation to the system, this makes the technology more useful for the organizations. Work culture and organization sentiments get badly affected by the technology used with malafied intentions by any personal of the organization. It creates a bad example so the high morale of the employees is must before providing any access to them through technology to the crucial information and processes of the organization.

It has been observed that the personal gadgets used by the employees are also a part of the advance technology used nowadays in the organization which makes the overall communication

more effective. Technology has two faces good as well bad. Proper and sensible use gives the good results of using technology on the other hand using technology with some negative intentions or say overutilization of the technology just for fun and enjoying forgetting the sense of responsibility makes the technologies disadvantageous for the organization.

7. Suggestions

Provide proper training to the employees so that they will use the technology implemented by the organization efficiently.

Banning Personal Cell Phone Use and providing a common office phone for the emergency and official calls.

For all of these reasons, many companies are banning employee use of personal cell phones during the work day, except for during lunches and breaks. If you think you need to do this, it's important to state a clear policy and stick to it. Personal cell phones should be put away, out of sight and temptation. If someone needs to check on a sick child or is expecting an important call, exceptions can be made if they notify their supervisors first.

No more glancing at cell phones during meetings. No more sending "just a quick text." The best way to make everyone comply? Set the example and don't be seen on your personal cell phone during work hours, either.

Issuing guidelines on the use of the official phones and institute internet usage:

The disciplinary guidelines should be constituted to control the use of the personal digital system to the employees. Restrict the social chatting website and the personal group.

Develop a Reward System : This will encourage the employees to make the use of the time and technology for the constructing and development purpose.

Put a Firewall on the Server: This is to provide the access to the websites which are required for the employees for conducting and executing the official work.

Restructure the working system to develop the morale of the employees: The organization should make develop the morale of the employees so they have a sense of responsibility to make a good and proper use of the technology.

Conduct motivational and work culture mannerism programme: The seminar and EDP's should be conducted to develop the morale of the employees so that they make use of the digital gadgets for some good purpose.

Bibliography

Books & References

- Ambrose ML, Alder GS. 2000. Designing, implementing, and utilizing computerized performance monitoring: enhancing organizational justice. *Res. Personnel Human Resources Manag.* 18:187–219.
- Andreessen M. 2011. Why software is eating the world. *The Wall Street Journal*, Aug. 20. <http://www.wsj.com/articles/SB10001424053111903480904576512250915629460>
- Applegate LM, Austin RD, McFarlan FW. 2002. *Creating Business Advantage in the Information Age*. Boston: McGraw-Hill
- Aral S, Weill P. 2007. IT assets, organizational capabilities and firm performance. *Organ. Sci.* 18(5):763–80
- Autor DH, Dorn D. 2013. The growth of low-skill service jobs and the polarization of the U.S. labor market. *Am. Econ. Rev.* 103(5):1533–97
- Ball K. 2010. Workplace surveillance: an overview. *Labor Hist.* 51:87–106
- Bandura A. 1997. *Self-Efficacy: The Exercise of Control*. New York: Freeman
- Barley SR. 1986. Technology as an occasion for structuring: evidence from observation of CT scanners and the social order of radiology departments. *Adm. Sci. Q.* 31:78–108
- Barley SR. 1990. The alignment of technology and structure through roles and networks. *Adm. Sci. Q.* 35:61–103
- Ciborra C, Lanzara GF. 1994. Formative contexts and ICT: understanding the dynamics of innovation in organizations. *Account. Manag. Inf. Technol.* 4(2):61–86
- Coovert MD, Thompson LF, eds. 2014a. *The Psychology of Workplace Technology*. New York: Routledge
- Coovert MD, Thompson LF. 2014b. Toward a synergistic relationship between psychology and technology. See Coovert & Thompson 2014a, pp. 1–17
- Daft RL, Lengel RH. 1986. Organizational information requirements, media richness and structural design. *Manag. Sci.* 32(5):554–71
- Davenport TH, Kirby J. 2015. Beyond automation: strategies for remaining gainfully employed in an era of very smart machines. *Harvard Bus. Rev.* 93(6):58–65
- Davis FD. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Q.* 13(3):319–40

- Deci EL, Ryan RM. 2012. Self-determination theory. In Handbook of Theories of Social Psychology, Vol. 1, ed.
- PAM Van Lange, AW Kruglanski, ET Higgins, pp. 416–37. Thousand Oaks, CA: Sage
- Demaerschalk BM, Vargas JE, Channer DD, Noble BN, Kiernan TJ, et al. 2012. Smartphone teleradiology.
- Brynjolfsson E, McAfee D. 2014. The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies. New York: W.W. Norton
- Burkhardt ME, Brass DJ. 1990. Changing patterns or patterns of change: the effects of a change in technology on social network structure and power. *Adm. Sci. Q.* 35:104–27
- Carlile PR. 2002. A pragmatic view of knowledge and boundaries: boundary objects in new product development. *Organ. Sci.* 13(4):442–55
- Carter NM. 1984. Computerization as a predominate technology: its influence on the structure of newspaper organizations. *Acad. Manag. J.* 27:247–70
- Cascio WF. 2011. The virtual global workforce: leveraging its impact. Presented at Annu. SIOP Leading-Edge Consort, 7th, Louisville, KY

Websites

- <https://www.statista.com/statistics/730306/whatsapp-status-dau/>
- <https://web.archive.org/web/20081007132355/http://history.sandiego.edu/gen/recording/digital.html>
- <https://turbofuture.com/computers/Advantages-of-Digital-Technology>
- <https://adt2b.com/eng/>
- <https://www.essindia.com/erp-in-india>
- <https://www.quickfms.com/blog/6-ways-technology-has-reshaped-the-workplace/>
- <https://smallbusiness.chron.com/disadvantages-cell-phone-communication-workplace-12818.html>
- <https://turbofuture.com/misc/Disadvantages-of-Digital-Technology>
- <https://www.dtcoa.com.au/dailynews/2019/3/22/what-is-a-smart-city>
- <https://www.marketexpert24.com/>
- <https://tech.economictimes.indiatimes.com/>