

# **Digitalization of Education: Benefits and Drawbacks**

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**Abstract:** *Since digital education creates an even playing field for all students, it is a new approach to information transfer. With an estimated 430 million children in the country between the ages of 0 and 18, India is home to the biggest number of children worldwide. The nation's education system, particularly in rural areas, is in terrible shape. Issues include outdated teaching strategies, a teacher shortage, an extremely high student-teacher ratio, and a lack of quality instructional resources plague the field. By giving teachers access to multimedia teaching resources and involving students in learning activities that make use of digital tools like smart boards, LCD panels, movies, and other devices, digitization of education helps to allay these worries. In addition, it addresses the teacher shortage in the nation by enabling a single teacher to remotely impart knowledge across multiple places via interactive digital media*

**Keywords:** digitization, Education, Introduction, knowledge

## **I. INTRODUCTION**

"As students interact in online and digital environments and as educators adapt teaching methods with the use of hybrid courses, individualized instruction, new collaboration models, and a wide range of creative, captivating learning strategies, digital education is creating new learning opportunities." Additionally, a 21st-century understanding of student success calls for students to be competent and cooperative producers of digital media as well as thoughtful consumers of it, showcasing their knowledge and ideas through data visualization, dynamic storytelling, and content curation.

Globally, an estimated 1.5 million additional employment will be digitized by 2020. But as of right now, 90% of organizations report a skills gap in IT, and 75% of teachers and students believe that their present level of preparation falls short of what the IT sector requires. According to research conducted by the World Economic Forum, 65% of kids starting elementary school will work in jobs that don't exist now. Therefore, the education system must rapidly adapt to meet the growing need for IT skills in order to develop the talent required for the digital economy.

Any system that relies on sporadic data or occurrences is referred to as "digital." In their most basic form, computers are digital machines because they can only discriminate between two values: 0 and 1, or off and on. Digital encoding of all data that a computer processes has to be done as a sequence of zeros and ones.

Analog is the opposite of digital. An example of an analog gadget would be a clock with hands that revolve continually around the face. An analog clock like this one can show any time of the day. A digital clock, on the other hand, can only display information a limited number of times (every tenth of a second, for example). A printed book is an analog form of information, as was previously mentioned. To turn a book into a digital format, its contents must be digitized.

The act of transferring content from physical media—such as books, periodicals, manuscripts, cards, photos, vinyl disks, etc.—to digital formats is known as digitization [4]. The process of converting a piece of information—such as a book, journal article, sound recording, photograph, audio cassette, video recording, etc.—into smaller pieces is known as digitization. The basic building blocks of information in a computer system are called bits. Digitization is the process of converting information into these binary digits, and it can be done using a number of current technologies. A digital image, in turn, is composed of a set of pixels (picture elements), arranged according to a pre-defined ratio of columns and rows. An image file can be managed as a regular computer file and can be retrieved, printed and modified using appropriate software. Further, textual images can be OCR'd so as to make its contents searchable.

### **Why paperless education is a better option for India**

1. **Enhanced Productivity:** An employee needs to search for a paper document for an average of 12 minutes. This can be cut down to a few seconds or less with a well-executed digitization and document imaging plan. Document imaging shortens turnaround times and boosts corporate productivity by enabling stakeholders to share, collaborate, exchange, and view documents quickly.
2. **Cost-effectiveness:** Paperwork and printing can be extremely expensive. It includes a number of ancillary expenditures, such as space charges, paper record upkeep, and equipment management. By lowering these expenses to a minimum, Aptara's Document Imaging can free you up to concentrate on your core competencies and increase your expenditures in value-adding verticals. Aptara helps Management Concepts save \$1 million a year on labor, shipping, and printing expenses. This indicates a return on investment (ROI) of 100% or higher. Businesses who rely on Aptara for their digitization needs, such as Management Concepts and Cisco, can save hundreds of thousands of Concepts and Cisco, can save hundreds of thousands of dollars a year on labor, shipping, and printing expenses.
3. **Easy to access and constantly available:** Converted documents are readily available via the cloud or system on any internet-connected device, at any time or place. **Optical character recognition (OCR):** OCR methods, when combined with appropriate data indexing, provide effective data searching and access, saving time and effort. **Taxonomy and Indexing:** Aptara's Document Imaging Services may assist you in creating a high-level classification for your documents, making it simple for you to locate scanned documents. Taxonomy also helps to enhance search results. A well-thought-out taxonomy will improve employee adoption and search engine rankings.
4. **Increased security:** A scanned document can be tracked. If necessary, workflows and authorization groups for certain users can be set up, limiting access to the papers and protecting the confidentiality of each individual document.
5. **Enhanced Information Preservation:** Data saved on paper forms deteriorates with each manual handling. This degradation happens even faster. The most crucial data for your company is protected and maintained for the future with document imaging.
6. **Disaster recovery:** Whether a disaster is caused by nature or human activity, it is always possible. Your paper papers could be severely damaged by a fire, flood, earthquake, or other damaging phenomena, which would have a huge negative impact on your business. With document imaging, you can easily retrieve important documents with just a click by having a secure data repository that you can share on the cloud or your local document management system.
7. **Saves room:** Since real estate is expensive, getting rid of paper storage can free up space for you, lower your rent, save money on off-site document storage, or even allow you to expand into a new office.
8. **Remain Competitive:** The modern document management era has made digitalization its guiding principle, whether it is applied to large corporations or small businesses. Digitization of documents
9. **Environmentally friendly:** The process of document imaging and general document digitization is environmentally friendly and contributes to your green credit accumulation. It raises the environmentally friendly factor of your business by eliminating the need for several backup copies and pointless printing.
10. **Digital Transformation:** The initial stage of creating a plan for digital transformation is image scanning. Organizations that want to focus on standardization and cost savings while ensuring digital success must adopt early.

### **The drawbacks of online learning**

As automation has advanced, teachers are not equally trained in its appropriate application. As a result, rather than learning anything from technology, students are just utilizing it. It's a fantastic thing to use applied science to educate people in the right way, but it will take time for them to become active learners.

Completely relying on computers is leading to bad study habits. Rather than tackling math problems the traditional manner, which really aids in deeper understanding of the subjects, many students are always surfing the web in search of the quickest solution. They are unable to learn the proper spelling thanks to spell-checkers, which leads to an endless supply of spelling errors on papers.

Technology was not created by humans; rather, humans created technology. Similar to how humans make mistakes, technology also makes mistakes. Several issues, like as server errors and connectivity issues, are difficult to troubleshoot and can impede the learning process. This can occasionally cause dissatisfaction for both instructors and

students. It is not a good idea to waste time on pointless problems in schools or other learning environments where students value every second.

Due to the rapid advancement of technology, website owners are driven to prioritize search engine rankings over the quality of their content, as a result of which their websites are becoming more and more visible in search results. Many websites include inaccurate content that has been copied verbatim from other sources without being verified. The inaccurate information on the websites leads to learners being misled. These items might evolve into significant roadblocks to their progress.

There are claims that the proliferation of new technology has resulted in a decline in interpersonal interaction and communication abilities. Since a good portion of the new technology is designed to be used independently, there are legitimate worries that kids may lose the interpersonal and cooperative skills that they typically learn in a classroom.

It goes without saying that the newest and most advanced technology is highly costly. Schools must pay for technology in order to use it in this way, which is challenging for the majority of public schools due to the high expense. Parents find this challenging as well because their children become acclimated to technology that they do not own at home.

## II. CONCLUSION

In the highly connected world of today, wise technology use can improve education. It is evident that there are a lot more advantages. However, since education takes place there, the teacher-student interaction will always be crucial to the use of technology in the classroom. Because technology was created by man and not by technology, it is only a tool, even though it might be a very powerful one. The teacher is not intended to be replaced by technology. Instead, the goal is to establish an adaptable learning environment that stimulates creativity. It transforms the classroom into a more collaborative learning atmosphere as opposed to the traditional "sage on a stage" model. In the end, the effectiveness of these initiatives will depend on how technology is used to maintain student interest. While using technology in education can be time-consuming and irritating at times, it can also lead to new experiences, discoveries, and methods of learning and working together.

## REFERENCES

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