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Digitalization in India

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ABSTRACT: India is currently the most linguistically varied country in the world. In this paper, we focus on how India is on its way to become one of the leading cosmopolitan country in the world in terms of digitalization. Digitalization is the strategy of adopting recent technologies in IT to make the most of the digital resources available in the enterprise. Also, we have mentioned various fields where digitalization has highly marked its importance like digital India, digital culture, digital camera, digital computer, digital education, etc.

Keywords: DII, DE, DM and DC.

I. INTRODUCTION

'Digitization' and 'digitalization' are two conceptual terms that are closely associated and often used interchangeably in a broad range of literatures.
Digitization refers to "the action or process of digitizing; the conversion of analogue data (esp. in later use images, video, and text) into digital form." Digitalization, by contrast, refers to "the adoption or increase in use of digital or computer technology by an organization, industry, country, etc."

"Digitalization includes Digitization"

"Digitization is the first step to realise digitalization"

Without digital information, No Big data based solution possible" Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

Representation of digital economy

The time is right for Indian companies to pursue digitalization-whereby digitized resources, such as cloud-based software and machines equipped with digital sensors, are transformed into new sources of profitable revenue. In just the next few years, various components of the digital ecosystem in India- including the digitized consumer, generation of digital data volumes, e-commerce and tech-savvy talent pools – are expected to mature. The survey of more than 100 senior executives to find their readiness to make the most of fast-maturing opportunity. It was found that very high levels of awareness amongst executives on digital technologies of the present and future, such as Internet Of Things. Executives that were surveyed also agree that digitalization is a strategic growth-imperative.

Many of the survey participants believe that high costs are preventing them from taking full advantage of digital technologies. Moreover, a large number are seeing the gains they have made from digital adoption hit a plateau.

II. APPLICATION AREAS OF DIGITALIZATION

Digitalization goes beyond the technical process of digitization. In digitalization, innovation comes not only from the digitization of phone, cars, or books. It is a much broader change of organizing logic in multiple industries and marketplaces that become connected through a common digital infrastructure. Some of the areas where digitalization is concerned in alarming rates are-

A. Digital India

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.

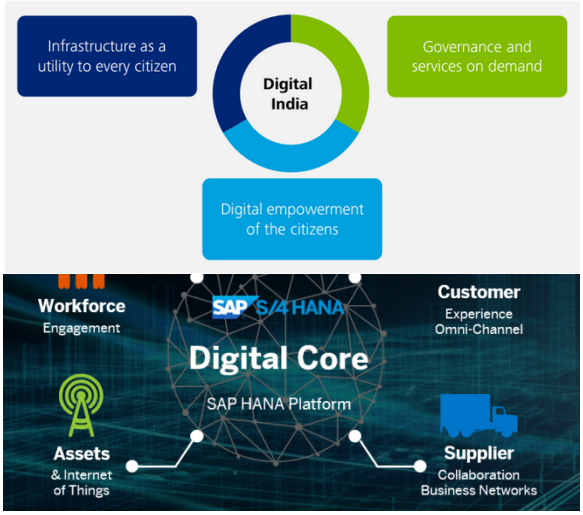
Vision Areas of Digital India. The Digital India programme is centered on three key vision areas. They are listed below as-

Digital Infrastructue as a Utility To Every Citizen. A well connected nation is a prerequisite to a well served nation. Once the remotest of the Indian villagers are digitally connected through broadband and high speed internet, then delivery of electronic government services to every citizen, targeted social benefits, and financial inclusion can be achieved in reality. One of the key areas on which the vision of Digital India is centered is "digital infrastructure as a utility to every citizen".

A key component under this vision is high speed internet as a core utility to facilitate online delivery of various services.

Governance And Services On Demand. Over the years, a large number of initiatives have been undertaken by various State Government and Central Ministries to usher in an era of e-governance. Sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them. E-governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency.

Digital empowerment of citizens. Digital connectivity is a great leveller. Cutting across demographic and socio-economic segments, Indians are incredibly connecting and communicating with each other through mobile phones and computer riding on digital networks. The Digital India programme itself promises to transform India into a digitally empowered society by focusing on digital literacy, digital resources, and collaborative digital platforms. This also places emphasis on universal digital literacy and availability of digital resources/services in Indian languages.



B. Digital Culture

Exploring the intersections of technology, knowledge, and culture in a digital age!!

Digital culture is many things and applicable to multiple topics—but it all boils down to one: the relationship between humans and technology. These ideas are often overlooked as technology becomes a second nature to us.

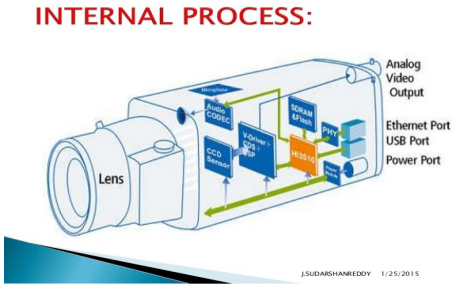
Digital Culture Program supports activities that examine the role of technology in social science research, in the circulation and distribution of information, and in the shaping of cultural and political

systems, serving the organization's core aims to deepen and democratize knowledge.

C. Digital Camera

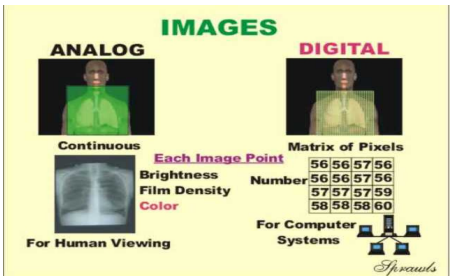
Since the 1990s, digital cameras have become more and more common—and also more affordable. Because of this, it's now easier than ever to get started with photography. Luckily, you don't need to buy a professional-level camera to get good results. The most important factor is the **skill of the photographer**. In this tutorial, we'll show you how to use **lighting**, **composition**, and your camera's **settings** to take better digital photos—no matter what kind of camera you have.

Most cameras can be grouped into four main types: **digital SLR (or DSLR)**, **point-and-shoot**, **bridge cameras**, and **camera phones**.



D. Digital Computer

A computer that represents discrete(digital) information by numerical (binary) digits is called a digital computer.



Generally it uses binary number system and thus it can understand only 0 and 1**.**

E. Digital Economy

The digital economy is the new productivity platform that some experts regard as the third industrial revolution. Digital revolution, also known as 'The Internet Economy' or Internet of Everything (IoE), is expected to generate new market growth opportunities, jobs and become the biggest business opportunity of mankind in the next 30 to 40 years.

The digital economy is the worldwide network of economic activities enabled by information and communications technologies (ICT). It can also be defined more simply as an economy based on digital technologies. Multiple definitions for the term exist, with variations in what should be included in this new economic paradigm.

Components of Digital Economy. The three main components of the 'Digital Economy' concept can be identified as:

a) e-business infrastructure (hardware, software, telecoms, networks, human capital, etc.).

b) e-business (how business is conducted, any process that an organization conducts over computer-mediated networks).

c) e-commerce (transfer of goods, for example when a book is sold online).

However, the digital economy is not simply about moving business transactions from face to face to online. The digital economy is about transforming the many facets of business interactions and transactions and also enabling economic innovations. For example, the digital economy both is enabled by and has given

rise to the advent of new digital currencies and payment processes (i.e., Bitcoin and the digital wallet).

F. Digital Economics

For several years now digital has been an appendage to "business as usual." But recently, digital transformations have reached the tipping point where digital has become "business as usual"; the tail has become the dog. Digital is not just part of the economy — it *is* the economy.

It's an economy of limitless opportunities for some and disruption and displacement for others. Many firms — such has Kodak, Blockbuster, Sears, and Blackberry — were unable to adapt, while others are thriving. According to MIT Sloan research, the companies that are adapting to a digital world are 26% more profitable than their industry peers.

The 4 Things It Takes to Succeed in the Digital Economy-

Customer expectations. Digital technologies enable companies to better engage with their customers and offer superior experiences at affordable costs. But providing outstanding experiences to increasingly savvy, and fickle, customers is getting harder. Customer expectations go beyond ease of use; they're now expecting proactive experiences.

Product enhancements. Thriving companies are also integrating related products and services into sophisticated industry solutions, while extending and restructuring industry boundaries, essentially creating whole new industries. Michael Nilles, recently promoted to Schindler's chief digital officer, offers a great example. Schindler has expanded its business beyond its elevator and escalator products to become a mobility solutions company, offering its technology in a variety of industries including health care, hotels, offices, malls and retail outlets, and sports arenas and expos. A major enabler in this evolution was the development of smart elevators and escalators that constantly collect sensor data and transmit it over the internet to Schindler's back-end systems, where the data is analyzed, generating maintenance notifications long before an actual breakdown. These notifications, enriched with expert repair advice, are then dispatched in real time to Schindler's service applications, where technicians are scheduled as appropriate.

Collaborative innovations. Companies must become more innovative to better respond to the highly competitive, global business environment. Collaboration is indispensable for innovation, both within the company's own boundaries and beyond, with customers, partners, startups, universities, and research communities.Thriving companies are harnessing collaborative digital networks to build ecosystems, such as Amazon, PayPal, Fidelity, Aetna, Apple, and Microsoft.

Organizational leadership. Companies must rethink their structures and culture to better deal with new market environments and business models. The hierarchic organization that prevailed in the 20th century's production-oriented industrial economy will not work in the more global and fast-changing digital economy. The companies that are most successfully adapting are making a cultural shift from "Mad Men" to "Math Men," where decision making is increasingly based on data rather than on the frequently wrong opinions of senior executives. These companies are adding data scientists to enhance organizational learning. They've made some decisions faster by relying on algorithms, and they are introducing artificial intelligence, robotics, and other advanced technologies as appropriate.

G. Digital Media

Digital Media is a blend of technology and content, and building digital media products requires teams of professionals with diverse skills, including technical skills, artistic skills, analytical and production coordination skills.

All of these skills need to be balanced on a team, with all team members focused on creating the best user experience**.**

Digital media products can be found in:

. E-Commerce

- Games – console, online and mobile
- Websites and mobile applications
- Animation
- Social media
- Video
- Augmented reality
- Virtual reality
- Data visualization
- Location-based services
- Interactive Storytelling

Digital media can include these industries: Entertainment, Technology, E-Commerce, Non-Profit, Health, Education, Marketing and advertising, Government, Sports, Environment, Television, Publishing.

H. Digital Versus Film Photography

The digital revolution has caught up to film in many regards, killing many of the arguments for film being better than its technological counterpart. However, the most notable reason to shoot analog may be the resolution obtained from medium format cameras. Not all explanations can be laid within technical comparisons though. Many will argue that shooting analog is a more personal and enjoyable experience – that decision, is completely up to you.

I. Digital Education

The role of every learning individual is thousand-fold when it comes to economy. A child who is studying today is an asset for the nation tomorrow, hence what he is been taught and his sources are to be taken into deep consideration. That is when the world of internet, computers and *swagger* comes into picture!!

A new era of defining characteristic civilization has now arrived. So has digitalization in education.

CONCLUSION

To help companies embrace digitalization systematically, we have defined a framework for achieving efficient as well as profitable digitalization. To develop this framework, we analyzed the experiences of firms that have begun finding their feet in this effort.The proposed framework comprises three steps:

Step1) Create awareness and ownership around digitalization: Help people throughout the organization understand what digitalization is and what advantages it offers, and foster a sense of ownership around digitalization at the highest level.
Step2) Design a digitalization roadmap: Putting customers at the center of the roadmap, design a digital business value tree and a digital operating model mapping the technology and skills required to harness the true power of digital assets.
Step3) Digitalize business model: Make the right choices about your customer value proposition, resources, profit formula and performance metrics and nurture the capabilities and culture needed to support your business model.

We believe that by mastering this three-step process, companies based in India can accelerate their transition into becoming truly digitalized powerhouses capable of profiting from such material opportunities the nation has to offer.

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