

4th sem HNRS

CORE-8

1) DEFINING NEW MEDIA

According to the *New Media Institute*, the term "new media" is a catchall term used to define all that is related to the internet and the interplay between technology, images and sound. In fact, the definition of new media changes daily, and will continue to do so. New media evolves and morphs continuously.

Further, the organization contends, "New media can be characterized by the variegated use of images, words, and sounds. These networks of images, sounds, and text data are different from old media formats such as hardcopy newspapers because of the *nesting characteristic*."

PC Magazine defines "new media" as "forms of communicating in the digital world, which includes publishing... most significantly, over the Internet. It implies that the user obtains the material via desktop and laptop computers, smartphones and tablets. Every company in the developed world is involved with new media."

Based on these definitions provided here it seems new media is concerned with producing content in a way that gives authors a full range of communication capabilities -- everything from coding websites, writing articles and press releases, creating images, videos, audio as well as infographics.

Today, in a world where 75 % of Internet users use social platforms such as Facebook or Twitter, the tools of "new media" enable individuals to reach out to wider audiences.

A 2015 study by the Pew Research Center and the John S. and James L. Knight Foundation, found 52% of Twitter users and 47% of Facebook use social platforms as a source of news and information.

The Impact of New Media

- New media has had a profound effect on three of the most essential categories of society in the twenty-first century: economics politics, and the exchange of ideas. Of course, the scope of this article is limited in its ability to name the types of changes that are a product of new media, let alone a sufficient treatment of each category. However, it is important to sketch a brief schematic life of new media in the Information Age. *New Media Institute*
- New methods of communicating in the digital world allow smaller groups of people to congregate online and share, sell and swap goods and information. It also allows more people to have a voice in their community and in the world in general. *PC Magazine*

2) DIGITAL MEDIA

A weather app on a smartphone, a racing game on a video game console and an ultrasound imaging device in a hospital are all digital media products. They are successful because they are engaging, easy to use (even fun in the case of games), and deliver results. 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.

The world we live in today is populated by digital media products, and these products enable and deliver experiences in many industries, including industries that aren't typically associated with digital media—such as health, government and education.

Digital media products can be found in:

- eCommerce
- 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
- eCommerce
- Non-Profit
- Health
- Education
- Marketing and advertising
- Government
- Sports
- Environment
- Television
- Publishing

II) Definition of Digital Media

Digital media is digitized content that can be transmitted over the internet or computer networks. This can include text, audio, video, and graphics. This means that news from a TV network, newspaper, magazine, etc. that is presented on a Web site or blog can fall into this category. Most digital media are based on translating analog data into digital data. The Internet began to grow when text was put onto the Internet instead of stored on papers as it was previously. Soon after text was put onto computers images followed, then came audio and video onto the Internet. Digital media has come a long way in the few short years to become as we know it today and it continues to grow.

The Birth of Digital Media

In earlier times, messages were once distributed by one particular source to their audience. The audience gathered their sources through a certain form of distribution, whether it was newspapers, magazines, radio, or television. Publishers had a great source of power over the information distributed and how it was perceived by the public. However, all that began drastically change with the rise of computers and more importantly the Internet.

Internet and Computers in Digital Media

Calculation and programming served as the main purposes for earlier computers. However, over time computers began to play a more personal role in humans' lives. No longer were computers being associated with governments or large corporations. As technology grew, people found out that storing information on a computer was convenient and provided good structure. People expanded the functions a computer could provide to its owner. People began to use computers for communication, creative purposes, research, and entertainment.

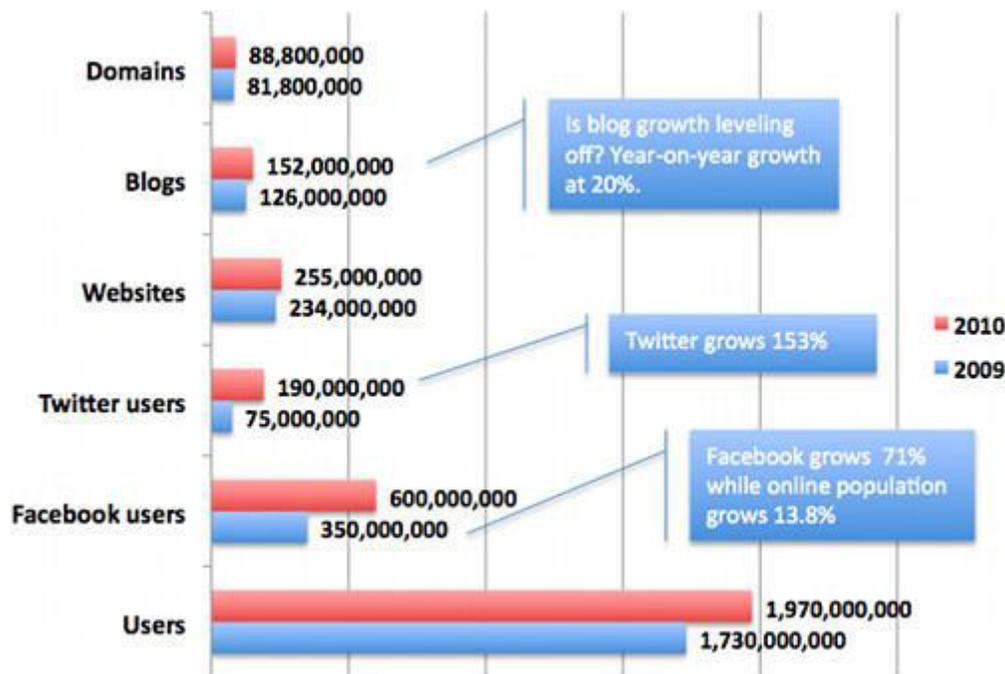
The Internet is a vast global system that links computer networks. People began taking to the Internet for government, commercial, educational, social, etc. purposes giving rise to digital media. By being able to connect with this growing amount of information, people were able to hear from multiple sources and to make it more personal by posting their own views'. Now publishing and blogging has become so easy that millions of people are able to post onto the internet creating a large amount of websites and information. As new people join the Internet, the amount of information viewed and provided expands.

How Digital Media Affected News Media

During World War II, Massachusetts Institute of Technology began a project to develop a computer known as the Whirlwind. The Whirlwind was the first computer that operated in real time and used a monitor for visual purposes. Operating in real-time is a huge advantage that the Internet provided for digital news.

[-Whirlwind](#)

Newspapers are unable to compete with the speed that digital news releases their stories. Not only can the latest updates immediately be found online, but you can also view various articles to gain a better understanding and survey multiple points of view. This staggered the hold newspapers had over their communities and began to disrupt their monopoly. More sources for news sprouted up. Some question the reliability of sources on the Internet. A lot more personal opinions, amateur journalism, and biased articles can be found on the Internet. Blogs are an attractive form of digital media. They truly helped push consumer generated content throughout the Internet. Not only has the Internet allowed consumers to contribute to the news, they are also allowing them to personalize their news experience. A customer does not have to buy a whole newspaper to read the select number of articles that interest them. Now they can go online and skip the other articles and skip the payment. Although newspapers have adapted to the rise of digital media by placing themselves online, being on the Internet does not guarantee the companies to make money back on lost business. According to the State of the News Media report, 75% of people are not willing to pay for online news content. They are more likely to go back to searching for free results. The report also states that 23% of people said that they would pay five dollars a month for unrestricted access to a local newspaper online. However, doubling the price a month drops the number by 5%.



Mobile Devices and Digital Media

Internet use via mobile devices has made a large impact, especially over the most recent years. Mobile devices have played a large role in the digital media. A recent survey with Pew Internet and American Life Project states that 47% of Americans get a form of news from their mobile device. These usually include immediate search needs on the weather, addresses, traffic, etc. More people are also using their cell phones to send them updates from the Internet. Therefore, more people are using their cell phones for more than their original intended purposes. This has further broadened the ever growing field of digital technology. The numbers of people using mobile devices is doubling by the months.

How Digital Media Affected the Entertainment Industry

Young adults are familiar with the rise of Napster in the late 1990's and how it affected the music industry and changed it forever. Music was, and still is, obtainable for free over the internet. The music industry has learned to benefit from the Internet and digital media, however it took some readjusting. Now sites can charge customers on sites like Napster so they can legally obtain the music they desire. Since digital media, it seems that i-tunes and downloading music has become more popular than purchasing CDs. Some up and coming bands attempt to use digital media to their benefit and realize that their material can be accessed by the world. They use the Internet as a tool in hopes of gaining a fan base.

The same goes for the movie industry. The movie industry has learned to cope with pirating by forming online accounts where people can purchase or rent movies instead of illegally downloading them. However, this does not mean that the movie industry has made the transition easily. The MPAA is battling against piracy constantly. The recent Writer's Strike was partially inspired by digital media. Writers demanded more compensation for Internet downloads, streaming, straight-to-Internet content, smart phones, and other on-demand online distribution methods. Despite all the battling that is going on, the movie industry still realizes the dawning of a new era.

The television industry has changed very similar to the movie industry. With devices like TiVo, television viewers can now fast forward through commercials. Television shows are being watched over the internet and various clips posted to sites.

The rise of digital media has also allowed people to communicate with others all over the world. Digital media has increased globalization by making communication with people from other parts of the world very easy. Video games can be played over the Internet with people from all over the world. For example, an online video game like World of Warcraft has over 10 million players. Some of the people that play WOW are from across the globe.

Books began appearing on the Internet for free. Writer's now have the option of placing their books online to be purchased or read through e-books. E-books are an electronic version of a printed book. Although the device to read the print may cost a lot more than the book itself, ordering more electric texts can be cheaper. It can be a lot more convenient than buying or borrowing a book. E-books also have the ability to translate text to other languages that the book is not published in.

Digital media has changed the flow of the entertainment industry permanently. With the rise of digital media, more and more people in the entertainment industry realize the importance of the Internet. Websites are made to advertise the show. A website may contain celebrity biographies, photo galleries, blogs, etc. The businesses refer to these sites also to monitor the feedback.

The Future of Digital Media

Last year the State of the News Media report predicted that 1,500 newsroom jobs would be lost at the end of the year making them 30% smaller than they were in the year 2000. This shows that digital media in the news continues to grow. Although traditional news media will most likely never be fully extinguished they will need to further adapt to the times. In order to make money, they will need to work with search engines to fight against news sites provided for free and rely more on advertising. Digital media has eliminated many cultural boundaries and will continue to do so as other less developed countries begin to become more reliant on technology. Digital media has provided instant communication between people all over the world. Different forms of digital media make this interaction easy and fun. Technology and the sharing of photographs on the Internet have found ways past language barriers. Thanks to digital media we are now entering a world that is culturally globalized.

3) **NEW MEDIA AND INFORMATION SOCIETY-**

New Media and the Information Society: Schiller, Castells, Virilio and Cyberfeminism

The development of new mediums of communication are inevitably accompanied by fresh modes of theorising. While this gives rise to new and original waves of thinking it can also provide space for more predictable narratives. The development of **Internet** technology, digital television and cyberspace are no different in this respect. The camps of thinking that have accompanied these new technological developments have either been welcoming, in terms of the social and technical opportunities that seem to be offered, or cynically suggested such narratives offer nothing new. For example, most of the writing on the Internet has either pointed to the ways new technological forms ...

4) INFORMATION SOCIETY,

"Information society" is a broad term used to describe the social, economic, technological, and cultural changes associated with the rapid development and widespread use of information and communication technologies (ICTs) in modern nations societies, especially since [World War II](#). Information societies are thought to differ from industrial societies because they treat information as a commodity, especially scientific and technical information; because they employ large numbers of "information workers" in their economies; because information and communication technologies and channels are prolific and are widely used; and because using those technologies and channels has given people a sense of "interconnectedness."

The term is somewhat controversial. Some experts believe that new media and computing technologies have produced a fundamentally new kind of society; others think that the technologies may have changed but that the basic social, cultural, and economic arrangements continue to look much as they have since the industrial era. Others criticize the idea on the grounds that "information" is a vague concept, used in different ways by different people (e.g., to mean documents, systems, ideas, data, knowledge, belief, statistical certainty, or any of a dozen other notions). Therefore, as Frank Webster points out in *Theories of the Information Society* (1995), it is difficult to observe or measure what it is that might make an information society different from other types of societies. Is France an information society because it has extensive, advanced telecommunications networks? Is Japan an information society because it produces more documents now than it did in 1950? Is the [United States](#) an information society because its companies employ more "information workers" than "industrial workers"?

Despite these difficulties, most observers would agree that many aspects of everyday life, including the workplace, family life, leisure and entertainment, teaching and learning, and earning and spending, have been affected in one way or another by the availability of new technologies and the ways people use them. "Information society" may be an imperfect label, but it is the most widely used one to talk about these complex changes.

Between the 1950s and the 1970s, economists, sociologists, and other researchers began to study the influences of telecommunications and computing technologies in advanced industrial societies. Two concepts from that period, the "information economy" and "postindustrial society," are still important aspects of the information society idea. More recent research has focused on whether the information society is a real departure from [industrial society](#) and on the cultural consequences of ICTs.

The Information Economy

Economists typically divide a nation's economy into three parts or "sectors": (1) primary or extractive (e.g., agriculture, mining, fishing, forestry), (2) secondary or manufacturing (e.g., production of goods manufactured from raw materials), and (3) tertiary or services (e.g., education, health care, law and government, banking and finance, sales, maintenance and repair services, entertainment, tourism, and so on). Only the primary and secondary sectors are traditionally considered to be "productive," that is, to contribute to material stocks of resources and goods that can be bought and sold. Service activities in the tertiary sector only "add value" or help produce or distribute the real products, rather than being valuable in and of themselves. Communication and information, from this perspective, do not have monetary value in themselves because they are not material goods—except when they are transformed into physical products such as movies, books, or computers.

The sheer numbers of television sets, wired and cellular telephones and pagers, radios, computers and modems, print publications, satellite dishes, and so on in homes and workplaces are often cited as evidence of an information society. Certainly, the media, telecommunications, and computing industries all grew dramatically in the twentieth century. However, the sale of telecommunications and computing equipment and supplies such as film, videotape, floppy disks, or paper stock is only part of the picture. "Value-added" information and communication services (e.g., entertainment cable channels, Internet access, or telephone dial tone) are often more profitable than the manufactured goods that carry them (e.g., [compact disc](#) players, videocassette recorders, computers, or telephones).

Such basic measurement problems have encouraged economists to begin thinking differently about both services and information. In the [United States](#), experts noted that employment levels declined in the primary and secondary

sectors after [World War II](#). Employment in the tertiary service sector, which had been rising since the 1860s, increased sharply after about 1945. Between the 1950s and the 1970s, the American economy grew at the fastest rate in its history, creating huge increases in income and the growth of a large and affluent middle class. By the 1970s, services comprised about half of the economy and 30 to 40 percent of the workforce in some industrialized nations. This sector seemed to be contributing much more to wealthy economies than analysts had previously thought it could. Compared to manufacturing industries, services employed more white-collar, well-educated, and well-paid workers, whose main tasks involved the creation and management of information and interaction with other people.

In his landmark work, *The Production and Distribution of Knowledge in the United States* (1962), Fritz Machlup of [Princeton University](#) was among the first economists to recognize and document the increasing numbers of these "knowledge workers" and their contribution to the American economy in the postwar period. He found that the number of "knowledge-producing" occupations grew faster than any other occupational group between 1900 and 1958 and that they made up about one-third of the workforce in 1958. Peter Drucker (1969) also described what he called the "knowledge economy" and "knowledge industries," "which produce and distribute ideas and information rather than goods and services."

The sociologist [Daniel Bell](#) (1973) was so impressed by the growing size and economic power of white-collar professionals, a class "based on knowledge rather than property," that he proposed splitting the service sector into three parts, thus creating five economic sectors that would more accurately reflect the variety and importance of service activities. In place of the traditional tertiary sector, he suggested a different tertiary sector made up of transportation services and utilities, a fourth quaternary sector including trade, finance, insurance, and real estate, and a fifth quinary sector comprised of health, education, research, government, and recreation services.

In 1977, Marc Porat published a nine-volume study for the U.S. Department of Commerce entitled *The Information Economy*. He and his colleagues refined Machlup's framework of occupational categories and found that about 40 percent of the American workforce could be defined as information workers. He produced the first input-output table of the U.S. information economy, showing both the employment changes and the amount of the [gross national product](#) that was attributable to the "primary and secondary information sectors." Porat's primary information sector included firms whose main business is the production of information and information technology; firms in the secondary information sector use information and information technology to support other types of production.

Using similar definitions of information work and information industries, the [Organization for Economic Cooperation and Development](#) (OECD) found that information workers comprised about one-third of the workforce in many of its member countries, mainly in Europe. Other researchers questioned Machlup's and Porat's assumption that only workers who produce informational "goods" could be classified as "information workers." Instead, they said, the definition should be based on the amount of information creation and use required on the job, rather than the products of the job alone.

In Japan, information society is translated as *joho shakai*. According to Youichi Ito (1981), researchers there took a different approach to documenting the growth of the information economy in the 1960s, focusing on the measurement of information production and consumption. The information ratio used by the Research Institute of Telecommunications and Economics (RITE) in Tokyo measured household spending on information-related activities as a proportion of total household expenditures. That group also developed the *johoka* index, ten measures that together provided an estimate of a country's degree of "informatization." The RITE researchers defined *johoka shakai* (informationalized society) in terms of per capita income, the proportion of service workers in the workforce, the proportion of university students in the appropriate age group, and a national information ratio of more than 35 percent.

In light of these and other research findings, economists have reconsidered the value of information and communication and developed theories of the economics of information. They have examined tangible forms of information such as books or tape recordings, as well as intangible intellectual property such as the movie rights to a novel, a patent on an industrial process, or employment contracts that prohibit employees from using for another employer what they learn in one job. Increasingly, knowledge or information itself, apart from its physical form, is considered to have an economic value or price—some argue that it can and should be treated like any other commodity or "raw material." Others point out that information does not behave as other physical commodities do. It is the only commodity, it is said, that one can sell and still have. Nonetheless, most economists and other

researchers agree that information-and communication-related activities account for an unprecedented proportion of economic investment and output in wealthy societies.

Postindustrial Society

By the 1960s and 1970s, the spread of media and information technologies, increasing demands for information work, and the expanding information economy led some analysts to wonder whether a large-scale social change was underway that would be as important as the [Industrial Revolution](#) had been. Industrial society developed in the eighteenth and nineteenth centuries as agricultural, craft-based, local subsistence economies were supplanted by national economies that were based on factory work and assembly-line methods of mass production of manufactured goods. Similarly, some researchers suggested that [industrial society](#) might now be giving way to a whole new form of a postindustrial society based on the production and circulation of knowledge rather than manufactured goods.

The term is usually credited to Bell, who in his influential book, *The Coming of Post-Industrial Society* (1973), contended that new technologies had produced profound changes in everyday social life and culture. Bell contrasted the dominant economic sectors and occupational groups in preindustrial, industrial, and postindustrial societies, respectively. He also argued that they differ in terms of the kinds of knowledge that they value, their perspectives about time, and what he called their "axial principles." Preindustrial societies, Bell said, have an axial principle of traditionalism, an orientation to the past, and rely on common sense or experience as the best type of knowledge. Industrial societies' axial principle is economic growth; they are oriented to the present and they believe that empiricism—knowledge gained from observation—is most valuable. The new postindustrial societies have an axial principle of centralizing and codifying theoretical knowledge. They are oriented toward the future and forecasting, and they consider abstract theory to be the best type of knowledge. These different orientations, according to Bell, affect social organization and processes differently in each type of society.

Bell was not the only observer to comment on the changes he saw. In the 1960s, [Marshall McLuhan](#) used the term "global village" to describe and critique the effects of worldwide electronic communications on culture, and his ideas certainly seem to have influenced the early visions of the information society. Drucker (1969) declared the era to be the "age of discontinuity" and said that changes associated with information technology constituted a major break with the past. Jean-Jacques Servan-Schreiber (1968) warned Europeans of the "American challenge" of technological dominance. Simon Nora and Alain Minc (1980) wrote a report for the president of France in which they described the convergence of telecommunications and computing technologies—"télématique"—and its potential effects on national sovereignty, social conflict, and human interaction.

In the United States, Alvin Toffler and John Naisbitt wrote popular books that predicted an inevitable tide of technological growth that would sweep away every aspect of traditional life; societies and people that did not adapt would be left behind. By the 1980s, scholars, the media, and laypeople alike took it for granted that they were in the midst of a "technology revolution" that would radically change society and culture forever. The social "impacts" of technology were detected everywhere; the belief that [new technology](#) was driving human action was rarely questioned.

An important perspective emerged in the 1980s to challenge the widespread view of a new society driven by the imperatives of technological development, the prospect of ever-growing productivity, and swelling ranks of affluent white-collar knowledge workers. Proponents of this critical view argued that new information and communication technologies tend to reinforce rather than break down established relations of power and wealth. Indeed, the critics said, new technologies were being built and used in ways that extended industrial work organization and processes to industries and workers that had previously seemed immune to assembly-line control, such as health care, education, and the professions. Information technologies gave owners and employers the same kind of control over white-collar professional workers as mass production had given them over blue-collar workers.

Led by notable critics including Herbert Schiller, the advocates of this "continuity" perspective said that industrial capitalism was not dead; it had just taken on a new form. They pointed out that industrial-era ideas about private ownership, market economics, Western-style politics and mass culture were being exported throughout the world via global information and communication networks. The collapse of the [Soviet Union](#) in 1989 was widely regarded as

a triumph of American-style capitalism and culture. Postindustrial society had preserved industrial institutional structures (e.g., law, education, finance) and organizational arrangements (e.g., private corporations), which critics said would ensure that political and economic power would remain concentrated in the wealthiest nations, firms, and social groups.

In fact, as Porat and others had found, the dramatic rise in white-collar employment in the service sector had flattened out by the 1980s. It appeared that even the most developed economies could use only about 45 to 50 percent "knowledge workers" in their workforces. Of that figure, the greatest demand for information workers was in relatively routine back-office jobs, such as programming, technical support, telephone sales, clerical work, and lower-level management. In the 1980s and early 1990s, despite a strengthening economy, well-educated American white-collar workers were laid off or replaced by temporary workers in record numbers as employers sought to cut costs.

Looking Ahead

In the 1990s, "information society" became a commonplace idea, though major disagreements remain in research and policy circles about its significance. Is it a revolutionary new phase of society driven by unprecedented innovation and the ubiquitous spread of new technologies? Or is it just the latest incarnation of late-stage capitalism, with information instead of raw materials and telecommunications and computing technologies replacing the [assembly line](#)? In an attempt to overcome this stalemate, Peter Shields and Rohan Samarajiva (1993) conducted a comprehensive review of information society research. They concluded that four main research perspectives had emerged: postindustrialists, industrialists, long-wave theorists, and power theorists.

Other researchers have taken a sociocultural perspective, examining how people use and understand information technologies in the whole fabric of everyday life. Both the continuity and discontinuity views, they say, are technologically deterministic—that is, they assume that technology drives what people do, rather than assuming that people control technologies and decide what to do with them. In contrast, the social shaping of technology view says that technologies are constantly influenced by human actions and social needs, as well as being society-shaping.

Mark Poster (1990) suggests that the "mode of information" has become a defining characteristic of contemporary culture. Social relations and interaction, he says, are being changed by the introduction of electronic communications and information technologies, so to understand the information society, researchers should study people's language and discourse. In a three-volume work entitled *The Information Age: Economy, Society and Culture* (1996-1998), Manuel Castells surveys the economic, social, and cultural changes of the twentieth century. He proposes that advanced societies are shaped by a "space of flows" of information rather than physical space. Nations, organizations, social groups, and individuals can link together, separate, and reorganize themselves into networks as needed according to their interests and the availability of information.

Key Social Issues

Clearly, many different perspectives have developed for understanding the information society. The implications for broad social change are complex and far-reaching. However, research also suggests that everyday life in information societies is changing. Several characteristics that affect interaction and sociality seem to distinguish what is most "social" about the information society: equitable access to information, privacy and surveillance, and new forms of social organization and community fostered by technology networks.

Equitable Access to Information

If information is the principal resource or commodity in an information society, then equitable access to information technologies and services is crucial if that society is to be a fair and just one. Though one might assume that "everyone" uses new technologies and services, such innovations are often too complicated for some people to use, or too expensive for disadvantaged households to afford. Uneven access has led to a growing concern about the rise

of a digital divide between information "haves" and "have-nots," based on race, income, family structure, literacy, national or regional origin, or other factors. The introduction of a new communication medium can create an information gap between the best-positioned members of a society and the less fortunate, excluding many people from educational and economic opportunities.

For example, policymakers, regulators, industry, and the public alike have debated for many years whether universal service can or should be extended for other technologies such as [the Internet](#) or cable systems. Universal service originated in the 1920s in the United States as a way to ensure that most households would have inexpensive access to telephone service. More recently, the U.S. e-rate policy has required telephone companies to bill their customers a small amount each month that is passed along to pay for computer equipment and Internet access for public schools and libraries. The policy was intended to help promote fair access to online resources, but it has been strongly opposed by the telephone industry because it subsidizes some users and sets prices for services.

Though the number of computer users is growing rapidly in the United States and around the world, a large proportion of the public still does not have Internet access and may not for years to come. Use of online services is particularly low among non-whites, the poor, and single-parent, female-headed households. Only 60 percent of American households have cable service, and about 60 percent do not have Internet access. The number of households with basic telephone service declined after the AT&T divestiture in the 1980s, due to increased rates for local telephone service.

Access is not only a matter of technology. Literacy is often assumed to be universal in the industrialized nations. Yet data gathered by the [Organization for Economic Cooperation and Development](#) (OECD) show that as recently as 1995, anywhere from one-third to one-half of adults in twelve of its wealthiest member states had literacy skills that were below the level considered necessary to function effectively at home and at work (Healy, 1998). In a policy paper for the 1999 National Literacy Forum, the National Institute for Literacy reported similar figures for the United States. In the developing world, literacy is a serious problem among rural populations and in traditional cultures where educational opportunities for girls and women are limited. Language barriers create a different literacy problem. Non-English speakers and readers throughout the world are at a distinct disadvantage when it comes to online information services because there is relatively little online content in local languages.

Equity problems arise in many other ways. Minority or unpopular views may not find wide audiences if substantially all of the major media and information services are owned by a handful of large international firms. The International Telecommunications Union has long been criticized because it allocates the majority of orbital satellite "slots" to the United States and [Western Europe](#), whose telephone and entertainment companies dominate markets throughout the world. [Intellectual property](#) rights such as copyright are being extended, and fair use provisions are being restricted, so that copyright holders can keep works out of the [public domain](#) for decades longer than they once could.

Equity is a concern across societies as well as within them. It is often observed that most people in the world have never placed or received a telephone call, much less used online information services or e-mail. Even in affluent areas such as the [European Community](#), subtle regional differences in the distribution of new media and information technologies have been documented. It is doubtful that systems and services will be distributed in poorer parts of the world as evenly as they have been in developed nations.

Privacy and Surveillance

In most developed nations, people enjoy a certain degree of privacy, both the classic "right to be left alone" (in Justice Louis Brandeis's words) and the control of information about their personal affairs and property. However, as more and more information about individuals and their activities has been gathered, stored, analyzed, and traded electronically, people have begun to sense that they are losing control over their personal information and their privacy. New media and information technologies make it much easier for anyone—with or without a legitimate interest or right—to gain and use personal information about others. Some researchers and policy analysts wonder if one of the characteristic features of the information society is a loss of personal privacy resulting from extensive uses of information and communication technologies for record keeping and surveillance.

Concerns about the privacy of electronic networks are not new. Early party-line telephones in rural American communities encouraged eavesdropping among subscribers who shared the same line. In the early 1900s, stockbrokers and bankers adopted telephones quickly when they realized that they could thereby interact without leaving a written record of the conversation or being seen together in meetings or in public. Before the divestiture of AT&T in the 1980s, Americans regarded "Ma Bell" to be almost as powerful as the government. Telephone wiretapping was a staple of detective novels and gangster movies. In the 1960s, the phrase "do not fold, spindle, or mutilate" inscribed across IBM punch cards became a cultural commentary on the inhumanity of new computerized systems for billing and credit, educational, and government records.

Since the 1990s, however, practically every type of information about individuals has been gathered and kept electronically. U.S. data privacy laws are fairly weak compared to those in Europe and other areas of the world. Private firms and law-enforcement agencies in the United States have lobbied hard to retain their right to access and share all types of data about individuals; indeed, differences in data privacy laws have been a major obstacle in U.S.-European trade talks.

It is no wonder, then, that people may be reluctant to send [credit card](#) numbers over [the Internet](#) or that they wonder who has access to their medical records. Some have started using "privacy technologies" of their own to thwart intruders.

Changing Social Structures and Community

Researchers, beginning in the early 1990s, have examined the ways that information and communication technologies, especially computer-mediated communication such as e-mail and the [World Wide Web](#), may support new kinds of social relationships and communities. People who communicate online share special types of language, take on new social and professional roles, share community "standards," participate in special events or "rituals," and develop rules of "netiquette". Research has shown that people using new technologies develop extensive networks of personal contacts, including a large proportion of indirect relationships to others.

Such findings suggest that in an information society, communities might be based more on shared interests or background than on physical geography or proximity. "Virtual" communities may be more temporary than geographic communities. Data from the U.S. General Social Survey show that, since 1980, a major shift has occurred away from the "nuclear family" that has been typical in modern industrial societies. About one-third of Americans live in households of only one person, and another one-third live in households with two adults and no children. Perhaps the social support that has been traditionally provided by immediate family, neighbors, and local community groups can now be found online, or by using technologies that allow people to stay in touch with loved ones and friends wherever they are.

Summary

By any measure, life in modern nations is inextricably tied up with the use of networked information and communication systems that link places, data, people, organizations, and nations. By using these systems, people can share information and interact more quickly with more people in more places than ever before. However, the question of whether fundamentally new types of social relationships, work organization, or institutional forms have developed is still open. The information society, like industrial society before it, will depend not just on technologies that people use but on the social arrangements and beliefs that make them part of everyday life.

5) Technological Determinism

Introduction

Technological determinism is a reductionist theory that aims to provide a causative link between technology and a society's nature. It tries to explain as to whom or what could have a controlling power in human affairs. The theory questions the degree to which human thought or action is influenced by technological factors.

The term 'technological determinism' was coined by Thorstein Veblen and this theory revolves around the proposition that technology in any given society defines its nature. Technology is viewed as the driving force of culture in a society and it determines its course of history.

Karl Marx believed that technological progress lead to newer ways of production in a society and this ultimately influenced the cultural, political and economic aspects of a society, thereby inevitably changing society itself. He explained this statement with the example of how a feudal society that used a hand mill slowly changed into an industrial capitalist society with the introduction of the steam mill.

WINNER'S HYPOTHESES

Langdon Winner provided two hypotheses for this theory:

1. The technology of a given society is a fundamental influencer of the various ways in which a society exists
2. Changes in technology are the primary and most important source that leads to change in the society

An offshoot of the above hypotheses which is not as extreme is the belief that technology influences the various choices that we make and therefore a changed society can be traced back to changed technologies.

Technological determinism manifests itself at various levels initially it starts with the introduction of newer technologies introduces various changes and at times these changes can also lead to a loss of existing knowledge as well. For example, the introduction of newer agricultural tools and methods has seen the gradual loss of knowledge of traditional means of farming. Therefore technology is also influencing the level of knowledge in a society.

Examples of Technological determinism

History shows us numerous examples to explain why technology is considered to be determining the society that we live in. The invention of the gun changed how disputes were sorted out and changed the face of combat. A gun required minimum effort and skill to be used successfully and could be used from a safe distance. This when compared to how earlier wars were fought with swords and archery lead to a radical change in the weapons used in war. Today with the discovery of nuclear energy, future wars will be fought with nuclear arsenal. Each new discovery causes a transition to a different society. The discovery of steam power let to the development of the industrial society and the introduction of computers has led to the dawn of the information age.

Technological Drift

Winner believed that changes in technology sometimes had unintended or unexpected results and effects as well. Winner called this phenomenon as 'technological drift' where people start drifting more and more among a sea of unpredictable and uncertain consequences. According to Winner, technology is not the slave of the human being but rather humans are slaves to technology as they are forced to adapt to the technological environment that surrounds them.

Forms of Technological Determinism

An alternative weaker view of technological determinism says that technology is serving a mediating function because despite it leading to changes in culture, it is actually controlled by human beings. When control of technology slowly reduces from being in the hands of few human beings, it passes completely into the control of technology itself. This view of humans having no control is referred to as 'autonomous technological determinism.'

Technological Determinism and Media

New media are not only an addition to existing media, they are also new technologies and therefore do have a deterministic factor as well. Marshall McLuhan made a famous statement that "the medium is the message." This means that the medium used to communicate influences the mind of the receiver. The introduction of news print, television and the internet have all shown how technological advances have an impact on the society in which we live in.

Criticism of Technological Determinism

A critique of technological determinism is that technology never forces itself on members of the society. Man creates technology and chooses to use them. He invents television and chooses to view it. There is no imposition on the part of the technology to be used rather technology requires people to participate or involve themselves at some point or another to use a car or a microwave. The choice of using technology and experiencing its effects therefore lies in the hand of a human being.

6) Computer-mediated communication

Computer-mediated communication (CMC) is any form of communication between two or more individual people who interact and/or influence each other via separate computers through the Internet or a network connection - using social software. CMC does not include the methods by which two computers communicate, but rather how people communicate via computers. **Computer-mediated communication (CMC)** has also been defined as "any communication patterns mediated through the computer" (Metz, 1992, p. 3). Walther and Burgoon (1992) argue that, "for many of us, CMC is no longer a novelty but a communication channel through which much of our business and social interaction takes place, and this transformation is expected to continue"

Technical and social aspects of CMC

Advantages of CMC

1. Computer mediated communication breaks down **geographical barriers** to communication enabling collaboration through communication over distance.
2. People can **exchange, store, edit, broadcast, and copy** any written document. They can send data and messages instantaneously, easily, at low cost, and over long distances. Messages can be sent to groups of any size and can be programmed for such special functions as automatic copying to a pre-specified distribution list. Two or more people can look at a document and revise it together, consult with each other on critical matters or ask for and give assistance interactively (Hiltz & Turoff, 1978; Williams, 1977).
3. **Few Status and Position Cues**: Software for electronic communication is blind with respect to the vertical hierarchy in social relationships and organizations. Once people have electronic access, their status, power, and prestige are not communicated as in face to face situations. Thus charismatic and high status people may have less influence, and group members may participate more equally in computer communication. Social influence among communicators becomes more equal because so much hierarchical dominance and power information is hidden (Edinger & Patterson, 1983). So providing a certain amount of anonymity which eliminates stereotypical classifications makes people feel less inhibited about communicating their ideas, opinions, feelings about certain issues and as a result fosters more participation and contribution from people who would otherwise feel intimidated (introverts). Students who are silent in face-to-face communication contribute in CMC discussion. It is the students who contribute the least in face-to-face discussion who increase their participation the most in CMC discussion.

2.2 Disadvantages of CMC

1. Inhibitions related to computer/technology use; problems with access to the technology.
2. More **time consuming**
3. **Absence of Regulating Feedback**, lack of **socio-emotional** and **nonverbal cues** (often referred to as **cues filtered out**). In face to face communication, head nods, smiles, eye contact, distance, tone of voice, and other **nonverbal behavior** give speakers and listeners information they can use to regulate, modify, and control exchanges. Electronic communication may be inefficient for resolving such coordination problems as telling another person you already have knowledge of something he or she is explaining (Kraut, Lewis, & Swezey, 1982). The lack of social feedback might make it difficult to coordinate and comprehend messages (Kraut & Lewis, in press). The absence of informational feedback between speakers and listeners in the computer-mediated communication condition makes people don't know exactly when their arguments are understood or agreed to, and consequently everyone believes they have to exert more effort to be understood making computer mediated communication more time consuming.

4. The **lack of true human contact** (Kevin Dupre - June 27, 1994). Electronic communication tends to seem **impersonal**. Communicators must imagine their audience, for at a terminal it almost seems as though the computer itself is the audience. Messages are depersonalized, inviting stronger or more uninhibited text and more assertiveness in return. "Sometimes users lose sight of the fact that they are really addressing other people, not the computer." People in computer-mediated groups are more uninhibited than they are in face-to-face groups as measured by uninhibited verbal behavior, defined as frequency of remarks containing swearing, insults, name calling, and hostile comments. In computer-linked groups whose members are discontented and in conflict with one another, impersonal behavior might tend to polarize members, exacerbate aggressiveness, and cause negative attributions to others (e.g., Gibbons & Wright, 1981; Goldstein, Davis, & Herman, 1975; McArthur & Solomon, 1978; Prentice-Dunn & Rogers, 1980). Using face to face communication, norms and social standards are made salient by observable social structural artifacts (such as prestige communicated through a person's dress) and by communication itself, including nonverbal involvement (Edinger & Patterson, 1983; Patterson, 1982). However, electronic signals convey fewer historical, contextual, and nonverbal cues. This situation, where personality lack salience, might foster feelings of **depersonalization**. In addition, using the computer tends to be absorbing and conducive to quick response, which might reduce self-awareness and increase the feeling of being submerged in the machine.

3 Theories of CMC

- Media richness theory (Daft & Lengel, 1986)
- Social Presence Theory (Short, Williams, Christie 1976)
- Time, Interaction, and Performance (Mcgrath 1991)
- Media synchronicity theory (Dennis & Valacich, 1999)
- Social information processing theory (Walther)
- cues-filtered-out theory (Sproull and Kiesler)
- Lack of Social Context Cues (Walther, 1992)
- The Social Identity Model of Deindividuation Effects (Lea & Spears 1992)
- Hyperpersonal model (Walther)