
UNIT 16 CONCEPTUAL FRAMEWORK OF DIGITAL INEQUALITY

Structure

- 16.0 Introduction
- 16.1 Learning Outcomes
- 16.2 Digital Inequality: A Social Problem
- 16.3 Understanding the Conceptual Development
 - 16.3.1 Shift from Divide to Inequality
 - 16.3.2 Dimensions of Digital Inequality
 - 16.3.3 Concept of Digital Inequality
- 16.4 Digital Inequality and Contemporary Society
 - 16.4.1 Inequality in the Information Society
 - 16.4.2 Inequality in the Network Society
- 16.5 Technological Approach to Digital Inequalities
 - 16.5.1 Diffusion of Innovation Theory
 - 16.5.2 Unified Theory of Acceptance and Use of Technology (UTAUT)
 - 16.5.3 Resources and Appropriation Theory
- 16.6 Conceptual Dimensions from a Sociological Perspective
 - 16.6.1 Bourdieusian Approach
 - 16.6.2 Weberian Approach
- 16.7 Digital Capital
- 16.8 Digital Inclusion-Exclusion and Participation
- 16.9 New Forms of Digital Inequality
- 16.10 Let Us Sum Up
- 16.11 Keywords
- 16.12 Further Readings
- 16.13 Check Your Progress: Possible Answers

16.0 INTRODUCTION

The proliferation of information and communications technology (ICT) has given prominence to the digital divide discourse, which has become a subject of global concern. With the rise of new ICTs in the second half of the 1990s, the notion of the digital divide emerged in the policy context to address unequal access to digital technologies. All countries do not have the same ICT penetration or growth rate. Developing countries, particularly in Africa, Asia, and Latin America, often face significant challenges regarding access to digital infrastructure, affordability of digital devices, and availability of digital skills and knowledge. Although it has become hard to imagine life without the Internet and other forms of ICT, only some have the same access to devices such as phones, tablets, laptops, and desktop computers. Thus, the discussion over access to digital technologies has given rise to a debate over

their usage from the standpoint of equality.

Simply put, digital inequality results from unequal access, skill, and use of the Internet and other ICTs. The conceptual framework for understanding digital inequality deals with the causes and consequences of digital inequality concerning ICTs, considering those as empowerment tools. Several disciplines contribute elements to the framework of digital inequality. Sociology emphasises social inequality regarding access to resources, control over different types of capital, and social involvement. Psychology examines problems as well as attitudes and reasons for using technology. Economics emphasises the spread of relevant innovations. Education deals with digital literacy, skills, and competence. Above all, communication studies deal with the tangents of mediated communication by constructing a connection between elements. Therefore, addressing the concept through the lens of communication studies requires a multi-faceted approach that involves sociological and technological perspectives intertwined with psychological, educational, and economic dimensions.

This Unit describes conceptual and theoretical patterns for identifying and understanding digital inequality using socio- and techno-centric accounts. Although only a small amount of theoretical study has been done so far on digital inequality, the Unit throws light on traditional as well as emerging concepts and frameworks that revolve around the rise of the digital divide, the manifestation of digital inequality, multiple concepts related to its components, and new forms of digital inequality.

16.1 LEARNING OUTCOMES

After reading this chapter, you will be able to understand:

- multidimensionality of digital inequality;
- nuanced conceptual and theoretical approaches in the field of digital inequality;
- digital Inequality from a Sociological Perspective; and
- technological approach to digital inequality.

16.2 DIGITAL INEQUALITY: A SOCIAL PROBLEM

Neither the essences of individuals nor the essences of specific collectives or systems (such as capitalism or patriarchy) serve as the starting point for this idea of inequality (van Dijk, 2005). Instead, the idea of inequality is based on the connections, relationships, interactions, and transactions that exist between people. Therefore, digital inequality is a societal rather than a technical issue.

Access to digital technologies is necessary for participation in many aspects of life, including education, employment, healthcare, and social interaction. Individuals with limited access to digital technologies may find it difficult to fill out online job applications, communicate with potential employers, access online training resources, etc. Digital inequality is a social issue because it

creates and expands social inequalities in education, employment, and information access. Those with limited access to digital technologies and skills may experience significant disadvantages in these areas, affecting their social and economic well-being.

Digital inequality can exacerbate other forms of social inequality, such as those based on race, gender, and socioeconomic standing. Those already marginalised in these areas may experience even more difficulty gaining access to and utilising digital technologies, which can exacerbate existing social disparities. As an example, in India, the digital gender gap encourages gender inequity. With internet connectivity, women may be included in employment opportunities, educational opportunities, and social networks, restricting their social mobility and economic desires. Digital inequality is a social concern because it creates and reinforces social inequalities, which can have long-term repercussions for individuals and society.

16.3 UNDERSTANDING THE CONCEPTUAL DEVELOPMENT

The term "digital divide" was not coined by any theorist; instead, it was first used in an official publication by the National Telecommunications and Information Administration (NTIA, 1999) in North America. In the earliest accounts of the phenomenon, the "digital divide" meant a disparity in the likelihood of having access to information and communication technologies (ICT) based on demographic characteristics such as race, gender, age, socioeconomic status, level of education, and the composition of the household. As the prevalence of computers and the Internet increased in developed nations, the discourse began to evolve, and more intricate conceptualisations were devised. In a short period, research on the digital divide has gained importance as an academic field; as a result, the concept of the "digital divide" has become more comprehensive with the emergence of "digital inequality".

16.3.1 Shift From Divide to Inequality

The term "digital divide" originally referred to the disparity between people with access to modern technologies and those without access (Van Dijk, 2005). This definition of the digital divide has been observed in terms of physical access to telephones, personal computers, cellular devices, etc. Later on, the definition became discordant with understanding the multidimensionality of communication beyond physical access to technologies. Moreover, it has become clear to social scientists that the digital divide is not related to a single type of binary gap but is intertwined with a range of social, economic, and technological issues. As soon as social scientists observed the nuances of digital access's social causes and consequences, the term got another social dimension called "inequality". According to this concept, the differences in access and usage of digital technologies are directly or indirectly related to social, cultural, political, and economic inequalities in society.

16.3.2 Dimensions of Digital Inequality

The digital divide laid the foundation for the concept of digital inequality. To understand the concept of digital inequality, one needs to understand the levels of the digital divide. Three levels of the digital divide correspond to multiple dimensions of digital inequality.

Table 1. The three levels of the digital divide

Levels	Deals With
First level	Binary access to ICTs (have or have not)
Second level	Digital skills
Third level	The tangible outcome of digital usage

Source: Author's compilation

The first level: The first level of the digital divide describes the unequal distribution of access to digital technologies. Low-income persons, those living in rural regions, people with impairments, and members of racial and ethnic minorities are disproportionately impacted by this divide.

Second level: The second level of the digital divide refers to the unequal distribution of digital skills and competence among people with access to digital technologies. This divide affects those with access to digital technologies but lacking the skills and competence to utilise them effectively. Individuals from low-income or marginalised communities may lack access to education or training in digital skills, resulting in the second level of the digital divide.

Third level: Access to digital devices and acquiring digital skills often fail to predict evenly distributed digital participation (meaningfully participating in the digital sphere). The third level of divide refers to the disparities in abilities to use digital technologies to achieve tangible outcomes of technology usage, such as online learning, remote work, e-commerce, and civic engagement.

16.3.3 Concept of Digital Inequality

The term "digital inequality" reflects a broader conception of the digital divide and incorporates a variety of factors beyond access to technology, including skills, usage patterns, and stakeholders involved in the acquisition of empowerment through technology. It acknowledges that more than merely providing access (binary access to digital technologies) to technology is required to ensure equal benefits from the opportunities it provides. Unequal access to economic, social, cultural, and personal resources impacts digital engagement (Helsper, 2012). Inequality may limit or boost citizens' social, economic, political, personal, and cultural capital, affecting their access to essential knowledge and ability to engage in society (Van Dijk, 2005). A

range of determinants contribute to disparities in access to and use of digital technologies.

Table 2. Determinants of digital inequality

Socio-demographic	Age, gender, marital status, residency, living area
Economic	Income, employment status, employment type, occupational status, educational level
Social	Online social interaction, social networking, types of social activities
Cultural	Religion, ethnicity, internet use, language
Personal	Type of online activity language skills, English skills, cognitive function
Material	Internet access, access locations, number of electronic devices
Motivational	Attitude towards ICTs, internet motivation, frequency of internet use, time spent online

Source: Adapted from Scheerder, Deursen, & Dijk (2017)

16.4 DIGITAL INEQUALITY AND CONTEMPORARY SOCIETY

The information and network society context best describes high-tech cultures of particular interest that cater to the digital environment. Scholars, including Manuel Castells and Jan van Dijk, used information and/or network societies to discuss disparities in ICTs. Although developed civilisations often display more information and network society features, discussing these concepts must be addressed in pursuing digital inequality, even in other sections of the world.

16.4.1 Inequality in Information Society

The idea of an information society broadly describes cultures in which information increasingly serves as both the primary input and output for all processes. Manuel Castells (2011) says that an information society is a type of social organisation in which information creation, processing, and transmission become the primary sources of productivity and power. Knowledge, information, and data continually expand and advance quickly in the information society. Inequality in the information society appears at the most fundamental level of information need, which leads to a widening gap in the capacity for association and knowledge transfer and in the capacity to judge the quality of information and make other related decisions. In modern times, there is a considerable disparity in the distribution of information

abilities among different groups of people.

16.4.2 Inequality in the Network Society

The concept of network society is not synonymous with the concept of information society; instead, it is an extension of it. The notion of an information society emphasises the changing nature of activities and processes in modern developed nations. According to Castells (2011), the network society is an informational society in which networks serve as the core organisational structure and pervade all areas. Van Dijk (2006) characterised the network society as an information society shaped by a nervous system of social and media networks. Networks are formed when specific actors select others to join them. As a result, individuals or organisations are either included or removed. Being unable to connect to these networks entails complete exclusion and digital marginalisation.

Check Your Progress 1

Note: 1) Use the space below for your answers.

2) Compare your answers with those given at the end of this unit.

1. Explain the concept of “digital inequality”.

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2. What are the levels of digital inequality?

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3. Mention any three essential determinants of digital inequality.

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4. How does inequality affect the information society?

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16.5 TECHNOLOGICAL APPROACH TO DIGITAL INEQUALITIES

Research-based theories and models help us make sense of complex ideas. Digital inequality, an interconnected and complex phenomenon, can be observed through various theoretical frameworks. Over the past decades, several theories regarding the unequal distribution of ICTs have emerged from studying their introduction, diffusion, and use. Theoretical frameworks for comprehending inequalities regarding how people adopt and integrate new technologies to be discussed include the Diffusion of Innovation Theory, the Unified Theory of Acceptance and Use of Technology (UTAUT), and the Resources and Appropriation Theory (RAT).

16.5.1 Diffusion of Innovation Theory

The diffusion of innovation theory was developed by E.M. Rogers in 1962 to describe how a community of potential customers adopts and spreads an innovation. This theory constructs the pattern by which new ideas, practices or products spread through a population. In this process of innovation and diffusion, diffusion occurs when individuals go through the steps of being aware of the need for an invention, deciding to adopt or reject the innovation, trying out the innovation for the first time, and then using the innovation regularly. Rogers divided adopters into five groups according to how long it took them to decide to adopt. The categories are innovators, early adopters, early majority, late majority, and laggards.

Innovators: People willing to take risks are the first to try new ideas.

Early adopters: Those eager to test the latest innovations and determine their application for everyone.

Early majority: People from the general population who are the first to adopt new technology in the mainstream.

Late majority: People from another part of the general population who follow the early majority and start using the new things in their everyday lives.

Laggards: People who are slower to adopt new products and ideas. They are risk-averse and inflexible.

Each of the five types of adopters is affected by the five primary elements that influence innovation adoption, although to varying degrees: relative advantage, compatibility, complexity, trialability, and observability.

Relative advantage: The extent to which an innovation is perceived superior to the concept, product, or item it replaces.

Compatibility: The degree to which the innovation is consistent with the prospective adopters' values, experiences, and requirements.

Complexity: The difficulty in comprehending and/or implementing the innovation.

Trialability: The extent to which an innovation can be evaluated or experimented with prior to adoption.

Observability: The degree to which the innovation yields measurable outcomes.

Relevance in the pursuit of digital inequality: The theory may lack some ICT-specific modifications of components, but it is more robust to the diverse and constantly shifting complexities of technologies. Thus, it provides an understanding of the adoption of ICT over time or the diffusion of the Internet.

16.5.2 Unified Theory of Acceptance and Use of Technology (UTAUT)

In 2003, V. Venkatesh, M.G. Morris, G.B. Davis, and F.D. Davis proposed UTAUT by utilising popular models in the field of technology adoption. UTAUT is a popular framework for understanding how people adopt and use new technologies. It suggests that actual technology use is determined by behavioural intent. According to this theory, the perceived likelihood of adopting technology is directly influenced by four critical constructs: performance expectation, effort expectation, social influence, and enabling conditions. Age, gender, experience, and voluntariness moderate the effect of these indicators.

Components of the UTAUT include -

Performance expectation: This refers to the degree to which individuals perceive that a specific technology will assist them in performing their tasks more effectively or efficiently.

Effort expectation refers to the degree to which individuals assume that using a specific technology will be simple and require minimal effort.

Social influence: This refers to the extent to which individuals are influenced by the opinions and attitudes of others in their social networks, such as family, friends, and colleagues.

Enabling conditions: This refers to the extent to which individuals have access to the required resources and infrastructure, such as computers, internet connectivity, and technical support, to use a specific technology.

Relevance in the pursuit of digital inequality: Researchers have utilised the UTAUT to examine the factors that influence the adoption and use of digital technologies in communities with limited access in the context of the digital divide. Even though UTAUT has been widely utilised to characterise the digital gap, UTAUT and its components have been limited in characterising recent patterns of digital inequality.

16.5.3 Resources and Appropriation Theory

Jan van Dijk (2005) explained the resources and appropriation theory, addressing the social, cultural, and technological factors contributing to digital inequality.

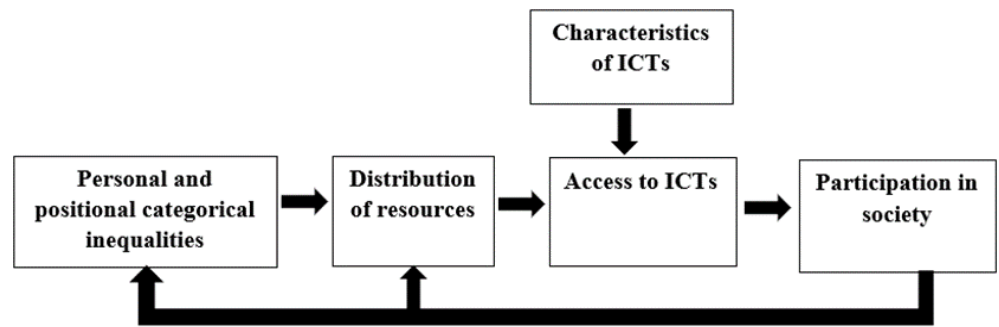


Figure 1. A Casual Model of Core Arguments
Source: Jan van Dijk (2005), The Deepening Divide

The core arguments of the theory are as follows:

- The unequal distribution of resources results from categorical inequalities in society.
- Unequal access to digital technologies results from an unequal distribution of resources.
- Unequal access to digital technologies is also influenced by the features associated with the technology.
- Unequal participation in society results from unequal access to digital technologies.
- Unequal distribution of resources and categorical inequalities are reinforced by unequal participation in society.

The components of the core arguments have been narrated as follows:

- i) Categorical inequalities:** Various personal and positional categories are accountable for the unequal distribution of resources required to access digital technologies. Personal categories comprise individual traits such as age, sex, race, intelligence (cognitive, emotional, and social), and personality (introvert, extrovert, and others). Positional categories include stratifications in the following areas: household (parent-child, husband-wife), management-executive, developing-developed, urban-rural, citizen-migrant, and high-low education.
- ii) Resources and mechanisms of distribution:** An uneven access to digital technologies results from an unequal distribution of resources, where a few mechanisms (social exclusion, exploitation, and control) work throughout the process. The resources identified in theory are temporal (time to spend on different activities in life); material resources (income and all kinds of monetary properties); mental resources (knowledge, social, and technical skills, excluding digital skills); social resources (social network positions and relationships); and cultural resources (cultural status and all kinds of credentials).
- iii) Successive kinds of access:** The fundamentals of resources and appropriation theory explain the stages of digital appropriation, with motivation access being the first, material access being the second, and usage access following after skill access.

- **Motivational access:** Motivation refers to the factors, such as perceived utility and relevance, that influence people's interest in and engagement with digital technologies. Motivations vary from an attitude towards a particular digital medium to financial factors.
 - **Material or physical access:** Material or physical access refers to the physical accessibility of digital technologies such as computers and the Internet. Time (whether one has time or not) and places (home, school, public places, etc.) to use digital tools and technologies all come under the umbrella of physical access.
 - **Skills access:** Skill access refers to the digital literacy and skills required to utilise digital technologies and the Internet effectively. Skills that account for the usage of digital media encompass operational (the skills needed to operate computers and internet connections), informational (skills used to search, select, and process information from computer and network sources), and strategic (skills to achieve personal or professional goals).
 - **Usage access:** Usage access describes how individuals utilise digital technologies and the Internet, precisely, the intensity of usage time and diversity of applications.
- iv) **Properties of ICT (Hardware, Software, and Content):** The degree to which a person accesses a particular ICT depends on its technological characteristics. Some of the properties of an ICT tool facilitate access, while others limit it. Complexity and expense limit access, while multifunctionality and network effects expand it. The formats of new media content are an essential characteristic that has a more significant impact on accessibility.
- v) **Fields of participation in society:** In many parts of society, access to new media can mean the difference between being included and excluded. The umbrella term for these repercussions is participation in society. People with less exposure to digital media have steadily decreasing opportunities to participate in arenas such as citizenship, education, politics, culture, social interactions, and health care.

Relevance in the pursuit of digital inequality: Researchers have used resources and appropriation theory to comprehend digital inequality by analysing the distribution of resources and how individuals and groups appropriate and utilise them in the digital domain.

16.6 CONCEPTUAL DIMENSIONS FROM A SOCIOLOGICAL PERSPECTIVE

Several traditional social theories serve as a background to the conceptual understanding of sociological approaches to digital inequality that can be used to probe its many facets and depths. Bourdieu's conceptions of capital and Weber's social stratification delve into the humanistic and social influences residing in digital inequality.

16.6.1 Bourdieusian Approach

Bourdieu (1986) defines capital as any resource that gives an individual an advantage that can be accumulated over time. Capital enables agents to replicate their positions within the social field and can take one of three fundamental forms: economic, cultural, or social capital, based on the arena in which it operates. In turn, each person's capital supports social inequality and social hierarchy. The conceptualisation of capital by Bourdieu has laid a foundation for a deeper understanding of digital inequality (Ragnedda & Ruiu, 2020).

In other words, people use and invest their social, cultural, and economic assets to strengthen their social status (symbolic capital). The capital of an individual not only creates the first level of the digital divide between those who can and cannot access the Internet but also the second level of the digital divide in terms of skill and capacity to use the Internet and the third level of the digital divide in terms of the social, economic, cultural, political, and personal advantages of being an internet user.

Bourdieu introduced the concept of social fields, structured spaces where individuals and groups compete for resources and power. In digital inequality, the digital realm can be considered a social field where individuals' engagement is influenced by their habitus—the internalised set of dispositions, behaviours, and preferences shaped by their social and cultural background. Digital inequality through the lens of social fields and habits allows an understanding of how individuals' social positioning and cultural capital influence their access to and use of digital technologies.

16.6.2 Weberian Approach

The Weberian approach, rooted in the sociological theories of Max Weber, can provide valuable insights into the intertwined processes between social and digital inequalities. Social inequalities as a potential topic of discussion in the discipline of digital inequality have been examined through the lens of Weber's social stratification and power dynamics. The Weberian approach to digital inequality uncovers the structural and systemic factors that contribute to digital inequality and guides efforts to mitigate disparities in access, skills, and resources in the digital realm.

Weber emphasised social stratification based on various dimensions, such as class, status, and power. Social stratification illuminates the manifested and circulated uneven distribution of resources. As per the concept, a group of people, being in a privileged position in society, take more advantage of ICTs and put them to use in achieving a tangible outcome (enhancement of life chances), such as job search, purchase, access to health care, political engagement, learning, socialisation, cybersecurity, leisure, and relationships with bureaucracy. As a result, different social groups, such as economically disadvantaged or marginalised communities, experience different levels (high to low) of access and benefits in the digital realm.

According to this approach, digital stratification intensifies on the following grounds:

Class: A class with limited capacity to use ICTs lacks the economic opportunities they offer.

Status group: A status group with limited capacities to use ICTs cannot serve the benefits of usage in status building, enhancement, and improvement.

Power: Limited capacities to use ICTs delimit personal interests, political power, and influence.

16.7 DIGITAL CAPITAL

Digital capital is the Bourdieusian approach to the digital realm. Following Bourdieu's concept of capital, digital capital is defined as the accumulation of both digital competence (internal skills and attitudes) and digital devices (external resources). It improves the tangible outcome of digital technologies to turn them into other forms of capital, such as social, economic, and cultural.

The core arguments for the concept are as follows:

- Digital capital is closely connected with economic, social, and cultural capital. A person needs these three capitals to build a good attitude and the right skills to use technology well.
- Digital capital is distributed unequally in society. Individuals with higher traditional forms of capital (such as education and social prestige) tend to have higher levels of digital capital. This indicates that people from more privileged backgrounds are more likely to have the skills, resources, and social connections necessary to flourish in the digital world. In contrast, less privileged people may struggle to access and utilise digital resources effectively.
- People need a network of support (social capital) like friends, family, and an online community to build up their digital capital. At the same time, people need money (economic capital) to access ICTs and knowledge, skills, and abilities (cultural capital) to use ICTs effectively.

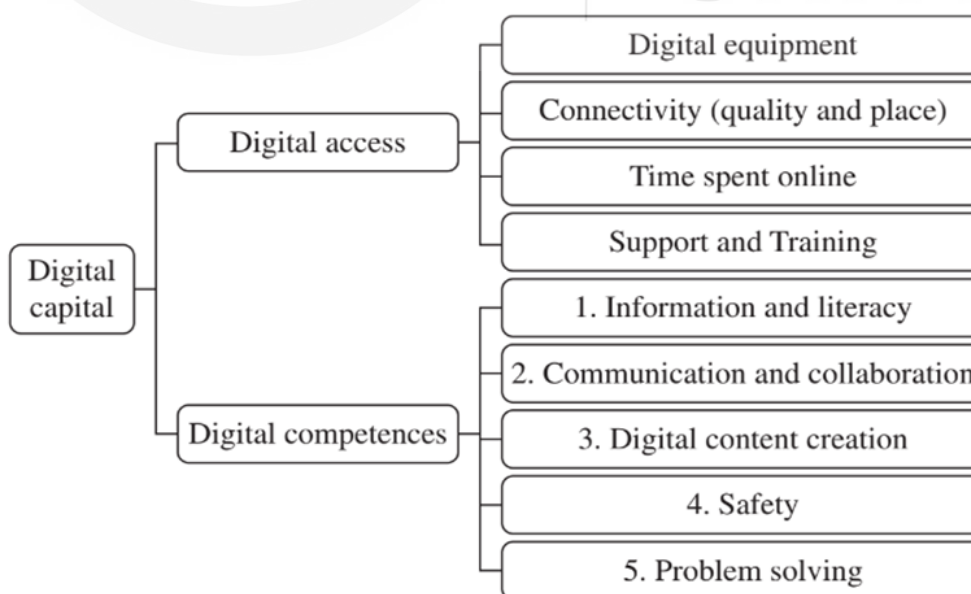


Figure 2. The Components of the Digital Capital Model

Source: Massimo Ragnedda and Maria Laura Ruiiu (2020), Digital Capital: A Bourdieusian Perspective on the Digital Divide.

In 2020, Massimo Ragnedda and Maria Laura Ruiu proposed the model of digital capital. Digital competence and digital access are two distinct components of digital capital that can be built up and transferred to improve life chances. According to the concept, in an Internet-based society, digital capital joins the Bourdieusian capitals as an essential factor in illuminating the causes and consequences of social stratification and differentiation.

An individual's digital capital can be accessed by cumulating all the elements of digital access and digital competence. This model helps comprehend the patterns of digital inequality concerning the resourcefulness of digital capital. In simple words, it identifies digital capital inequality.

The elements of the core components have been described below:

Digital Access

Four elements of digital access:

- i) Digital equipment: Devices used to access the Internet, such as mobile phones or smartphones, laptops, and desktop computers.
- ii) Connectivity: Access quality depends on which setting is used to access the Internet.
- iii) Time spent online: Cumulative experience in using ICTs in terms of total time of internet usage (years of usage)
- iv) Support: Seeking help to support experiences related to digital technology

Digital competence

- i) Competence Area 1: Information and Literacy
 - The activities of browsing, searching, filtering, data, information, and digital content
 - Evaluating data, information, and digital content
 - Managing data, information, and digital content
- ii) Competence Area 2: Communication and Collaboration
 - Interacting through digital technologies
 - Engaging in citizenship
 - Sharing and collaborating through digital technologies
 - Managing digital identity
- iii) Competence Area 3: Digital Content Creation
 - Developing, integrating, and re-elaborating digital content
 - Knowledge about copyright and licences
 - Programming
- iv) Competence Area 4: Safety
 - Protecting devices, personal data and privacy
 - Protecting health and well-being and the environment

v) Competence area 5: Problem-solving

- Solving technical problems, identifying needs and technological responses
- Identifying digital competence gaps

16.8 DIGITAL INCLUSION - EXCLUSION AND PARTICIPATION

Digital inclusion refers to the efforts and initiatives aimed at ensuring that all individuals, regardless of socioeconomic background, geographic location, age, gender, or ability, have equal access to and opportunity to use digital technologies effectively. Digital inclusion efforts may involve:

- Increasing internet access
- Bridging the digital skills gap
- Access to digital devices
- Creating digital content
- Addressing affordability
- Empowering marginalised communities
- Policy and regulatory interventions

Digital exclusion is when individuals or groups are systematically excluded from accessing and utilising digital technologies and resources, resulting in a lack of participation in the digital world.

The digital participation of individuals assures the digital inclusion of an individual and, on a larger scale, a specific group or community. In this context, participatory inequality, which may be defined as people's inability to use the Internet to produce and disseminate digital resources, is a potential barrier to the growth of a network society.

Table 3. Areas of participatory inequality

Area	Inequality
Economic participation	Inequalities regarding the usage of ICTs to participate in the labour market and business
Educational participation	Inequalities regarding educational usage of ICTs
Social participation	Inequality in the field of social capital building (e.g., building social networks)
Cultural participation	Inequality related to online cultural practices
Political participation	Inequality over the Online political discourse
Institutional participation	Inequality in achieving digital citizenship

Source: Adapted from Jan van Dijk (2005)

To eradicate digital exclusion, stakeholders (governments, organisations, and local groups) must work together. Efforts to close the digital gap include building internet infrastructure, making devices and connections more affordable, providing digital skills training and literacy programmes, and creating digital platforms open to all users and meeting their different needs. These actions aim to ensure that everyone has the same chance to access and benefit from the digital world.

16.9 NEW FORMS OF DIGITAL INEQUALITY

The rapid advancement of technology has resulted in the emergence of new types of digital inequality, discussed as follows:

Privacy and digital inequality: Privacy concerns are more important than ever in the digital age. Those with more information, resources, and technological skills can protect their personal data by implementing privacy-enhancing methods and practices. On the other hand, people with little access to resources or digital literacy may be more at risk of privacy violations, data exploitation, or data hacking, which can increase inequality.

Algorithms and digital inequality: Everything from search engine results to automated decision-making systems depends heavily on algorithms. Internet users consciously or unconsciously deal with unseen infrastructure called an algorithm, logical rules, and technical prescriptions developed by programmers, mathematicians, and data engineers. Algorithms are essential for creating favourable conditions for participation in digital life; therefore, digital inequality arises from a lack of understanding of algorithms. Lack of awareness could negatively affect democracy and public involvement on a societal level.

Artificial intelligence (AI) and digital inequality: Automation and other emerging technologies like artificial intelligence (AI) have the potential to produce new types of inequality. Access to and proficiency with these technologies can lead to increased productivity, better career possibilities, and financial gains. However, those people and communities that do not have the digital literacy to adapt to these disruptive technologies may be excluded from these advantages, which would increase inequality.

Check Your Progress 2

Note: 1) Use the space below for your answers.

2) Compare your answers with those given at the end of this unit.

1. Explain the Weberian approach to digital inequality.

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2. What are the core arguments of “Resources and Appropriation Theory”?

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3. Write the definition of digital inclusion.

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4. What are the two components of the digital capital model?

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16.10 LET US SUM UP

In this Unit, we gained a comprehensive understanding of digital inequality. It explained the factors contributing to inequality, such as disparities in access to technology, internet connectivity, digital skills, and usage factors. Delving into diverse frameworks of digital inequality, it defined the patterns and manifestations of digital inequality across different dimensions of academic disciplines. It also sheds light on how digital disparities intersect with factors like age, gender, race, ethnicity, income, and geographical location, how unequal access to digital resources and skills affects opportunities and outcomes, and possibilities to ensure equitable and secure digital environments as well. We learnt that the challenges faced by digital exclusion contribute to broader social and economic inequalities. We also explored new inequalities such as privacy, algorithmic, and AI-related inequalities. The discussion provided a deep understanding of the concept, offered diverse perspectives, and equipped you with knowledge and insights from a technological and sociological perspective of digital inequality.

16.11 KEYWORDS

Internet inequality: Internet inequality refers to the differences between people, communities, and nations regarding their capacity to access and efficiently use the Internet.

Digital inclusion: Digital inclusion refers to the inclusion of individuals and communities in the digital world, which means that they have access to digital technologies, internet connectivity, and the necessary skills to utilise them effectively and thus access to the economic, social, and cultural benefits of the digital world.

ICT: Information and communication technology (ICT) comprises diverse hardware, software, networks, and digital systems that allow for the processing, storage, transmission, and retrieval of data and information.

Digital participation: Digital participation is the active engagement, involvement, and inclusion of individuals and communities in the digital world through digital technologies to access information, communicate, create, collaborate, and contribute to digital content and platforms.

AI: Artificial intelligence (AI) refers to emulating human intelligence in machines programmed to carry out tasks that typically require human intelligence. It allows machines to perceive, reason, learn, and solve problems, enabling them to imitate or replicate human cognitive abilities.

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16.13 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress 1

1. The term "digital inequality" reflects a broader conception of the digital divide and incorporates a variety of factors beyond access to technology, including skills, usage patterns, and stakeholders involved. It acknowledges that merely providing access (binary access to digital technologies) to technology is insufficient to ensure equal benefits from the opportunities it provides.

2. Three levels of the digital divide correspond to multiple dimensions of digital inequality. The first level of the digital divide describes the unequal distribution of access to digital technologies. The second level of the digital divide refers to the unequal distribution of digital skills and competence among people with access to digital technologies. The third level of divide refers to the disparities in individuals' abilities to use digital technologies to achieve tangible outcomes of technology usage.
3. Determinants of digital inequality include economic determinants - income, employment status, employment type, occupational status, and educational level; social determinants - online social interaction, social networking, types of social activities; cultural determinants - religion, ethnicity, and internet use language.
4. Inequality in the information society appears at the most fundamental level of information need, which leads to a widening gap in the capacity for association and knowledge transfer and the capacity to judge the quality of information and make other information-related decisions. In modern times, there is a considerable disparity in the distribution of information abilities among different groups of people.

Check Your Progress 2

1. Social inequalities as a potential topic of discussion in the discipline of digital inequality have been examined through the lens of Weber's social stratification and power dynamics. The Weberian approach to digital inequality uncovers the structural and systemic factors that contribute to digital inequality and guides efforts to mitigate disparities in access, skills, and resources in the digital realm.
2. Core arguments of the Resources and Appropriation Theory are (i) Unequal distribution of resources results from categorical inequalities in society. (ii) Unequal access to digital technologies results from an unequal distribution of resources. (iii) Their features also influence unequal access to digital technologies. (iv) Unequal social participation results from unequal access to digital technologies.
3. Digital inclusion refers to the efforts and initiatives to ensure that all individuals, regardless of socioeconomic background, geographic location, age, gender, or ability, have equal access to and opportunity to use digital technologies effectively.
4. Digital competence and digital access are two distinct components of digital capital that can be built up and transferred to improve life chances.