



Strathmore University
Centre for Intellectual Property and
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SERIES ON DIGITAL RIGHTS AND INTERNET FREEDOM

Topic 5: Digital Divide(s)



Greater Internet Freedom

**Centre for Intellectual Property and
Information Technology Law (CIPIT)
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Digital Divides

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About CIPIT

The Centre for Intellectual Property and Information Technology Law (CIPIT) is an evidence-based research and training Centre based at Strathmore University, Nairobi, Kenya. CIPIT was established in 2012 and focuses on studying, creating, and sharing knowledge on the development of intellectual property and information technology utilizing diverse methodological approaches to inform debates on ICT applications and regulation.

About GIF

The Greater Internet Freedom Project (GIF) is a three-year, consortium-based, global program implemented by Internews and the GIF consortium across 39 countries. GIF places regional and local organizations at the forefront of the fight to preserve an open, reliable, secure, and interoperable Internet – and, by extension, protects the citizens, civic actors, journalists, and human rights defenders who rely on it to realize fundamental freedoms.

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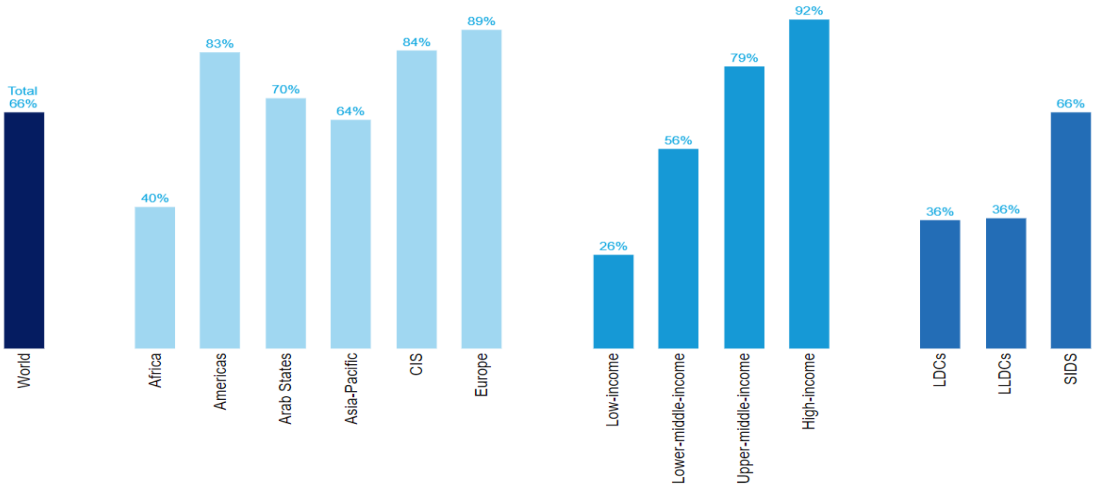
Introduction

The CIPIT and the GIF have developed exploratory material relevant to pertinent digital rights and internet freedom topics. The ‘Digital Divide(s)’ topic examines the gap and disparity between people who have access to digital technologies and those who do not. It delves into the categories and dimensions of the digital divide, digital content availability, and corporate social responsibility and philanthropy.

The promotion of inclusive societies and economies continues to be negatively impacted by ‘digital divide(s)’, magnifying the distinction between individuals, communities and groups who have access to information and communication technologies (ICTs) and those who do not.¹ At the Internet access level, the International Telecommunications Union (ITU) notes that “an estimated 5.3 billion people, or 66 per cent of the world’s population, use the Internet,”² meaning nearly 34 per cent are unconnected.

Figure 1: Percentage of individuals using the Internet by region, 2022. Source: [ITU](#).

Percentage of individuals using the Internet by region, 2022



Despite improvements in global Internet access statistics, this does not equate to universal or meaningful digital connectivity, with there being notable differences amongst GIF regions and countries. Illustratively, the ITU notes that:

“In the countries of Europe, the Commonwealth of Independent States (CIS) and the Americas, between 80 and 90 per cent of the population uses the Internet, approaching universal use (defined for practical purposes as an Internet penetration rate of at least 95 per cent). Approximately two-thirds of the population in the Arab States and Asia-Pacific countries (70 and 64 per cent respectively) use the Internet, in line with the global average, while the average for Africa is just 40 per cent of the population.”³

While Internet access and use remain the most pertinent considerations defining the ‘digital divide(s)’, the term is multifaceted and necessitates the recognition of many overlapping ‘digital divides’ including “digital skills, digital use, quality of infrastructure, access to content, affordability, quality, and literacy.”⁴ Utilizing this definition, it is clear that digital divides pose significant obstacles for societies in both developing and developed nations across GIF regions.

In 2020, at the peak of the COVID-19 pandemic, the United Nations Secretary-General, António Guterres in the ***Roadmap for Digital Cooperation*** that the ‘*presence of digital divides underscores and magnifies pre-existing inequalities in social, cultural, and economic spheres.*’⁵ These disparities are often rooted in, and exacerbated by, binary population indicators, such as age (young-old), income (high-low), geographical location (rural-urban), education (higher-lower levels), gender (male-female), language (English-other languages).⁶

Further, digital divides lead to, and magnify, in-country and regional inequalities characterized by digital exclusion, including economic growth disparities, discrepancies in accessing job opportunities, uneven access to health care, education and information, variations in political participation, and social and digital exclusion, amongst others.⁷

Resource: UN Secretary General's Roadmap for Digital Cooperation & High-Level Panel on Digital Cooperation

High-Level Panel: *“Digital dividends co-exist with digital divides. Well more than half the world’s population still either lacks affordable access to the internet or is using only a fraction of its potential despite being connected. People who lack safe and affordable access to digital technologies are overwhelmingly from groups who are already marginalised: women, elderly people and those with disabilities; indigenous groups; and those who live in poor, remote or rural areas. Many existing inequalities – in wealth, opportunity, education, and health – are being widened further.”*

Digital Cooperation Roadmap: *The Roadmap noted that various barriers exacerbate the digital divide, including:*

- a. *“The cost of installing traditional broadband connections: countries often face difficulties in financing the fibre-optic cables required.*
- b. *Market dynamics are often not favourable: Lower purchasing power in the least developed countries is a limiting factor for connectivity providers and, although wireless technology may help to spread broadband coverage further, faster, and more cheaply, companies do not have the incentives to pursue this.*
- c. *The lack of digital skills can also limit the adoption of digital tools.”*

Sources: [Report of the UN Secretary-General's High-Level Panel on Digital Cooperation](#); [UN Secretary General's Roadmap for Digital Cooperation](#).

Further, digital divides directly impact digital rights and Internet freedoms. For example, individuals, communities, and groups without meaningful and affordable access to the Internet and digital technologies are unable to fully exercise their right to freedom of expression or access to online, information, services, and networks. This contributes to the entrenched marginalization of these populations, who are unable to exercise their human rights online and capitalize on the benefits of digitization.

While there is no internationally recognized right to access the Internet, there has been a concerted drive to ‘reconceptualize and reinterpret human rights norms and principles to link ICTs, digital technologies and human rights.’⁸ As illustrated by Table 1 below, international human rights instruments and internationally-accepted standards and guidelines provide a foundation for advocating for

equitable and sustainable access to digital technologies and resources, and a framework for policymakers, governments, and organizations to support multi-stakeholder efforts to bridge the digital divide.

Table 1: Selected Resources on the Digital Divide - Instruments & Standards

<i>Instruments and Standards</i>
Tier 1 Instruments (<i>incl. legally binding instruments</i>)
<u>African Charter on Human and Peoples' Rights</u> (ACHPR), 1986
<u>American Declaration of the Rights and Duties of Man</u> (1948)
<u>American Convention on Human Rights</u> (1969)
<u>Association of Southeast Asian Nations (ASEAN) Human Rights Declaration</u> , 2009
<u>Convention on the Rights of the Child</u> (CRC), 1989
<u>Charter of Fundamental Rights of the European Union</u> , 2009
<u>Convention for the Protection of Human Rights and Fundamental Freedoms</u> (European Convention on Human Rights, or ECHR), 1953
<u>Convention on the Rights of Persons with Disabilities</u> (CRPD), 2006
<u>Inter-American Democratic Charter</u> (2001)
<u>International Covenant on Civil and Political Rights</u> (ICCPR), 1966
<u>Universal Declaration of Human Rights</u> (UDHR), 1948
Tier 2 Instruments (<i>incl. soft law instruments</i>)
<u>Joint Declaration on Freedom of Expression and the Internet</u> (2012)
<u>United Nations' Agenda for Sustainable Development</u> (2015)
<u>UN General Assembly Resolution on Information and Communications Technologies for Sustainable Development</u> (2018)
<u>UN Secretary-General Report on the Role of New Technologies for the Realization of</u>

Economic, Social and Cultural Rights (2020)
Global Standards and Guidelines
UN Guiding Principles on Business and Human Rights
2030 Agenda for Sustainable Development
Universal Meaningful Digital Connectivity Targets 2030

This paper restricts itself to an exploration of the following complex challenges:

Types, Categories and Dimensions of Digital Divides: support policy makers, digital rights advocates, and educators to understand its multifaceted nature, and the key influencing factors that exacerbate unequal access, use and quality to the Internet and digital technologies. Further, generate understanding of the overlapping nature of the digital divide as it cuts across different norms and identifies areas of digital inclusion.

- ✚ **Digital Content Availability:** briefly explore how language and accessibility considerations impact, and are affected by, the access and use of quality and relatable digital content.

Corporate Social Responsibility (CSR) and Philanthropy: generally, governments and the international community occupy center stage in the digital divides conversation. This paper notes the importance of exploring how CSR and philanthropic activities by corporate entities, such as telecommunications companies, foundations, individual philanthropists, nonprofit organizations, support efforts to bridge digital divides.

Definitions and Explainers

Term	Definition/Explainer
Affordable Internet Access	This refers to the “ability to connect to and use the internet.” ⁹ The Alliance for Affordable Internet advances the “1 for 2” metric to measure affordable internet, i.e., “where 1GB of mobile broadband data is priced at 2% or less of average monthly income.” ¹⁰
Digital Accessibility	This refers to the usability of a website, application, or other electronic platforms/digital experience for “all possible users, regardless of their ability or disability.” ¹¹
Digital Content	This refers to “data that is produced and supplied in digital form.” ¹²
Digital Equity	This refers to “a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.” This phrase should not be conflated with digital equality.
Digital Exclusion	This refers to the continuing unequal access and capacity to use ICTs by a section of the population. People likely to be digitally excluded include, older people, people in lower income groups, people with disabilities, people with fewer educational qualifications, people living in rural areas, homeless people, and people whose first language is not English.

Digital Gender Divide	This refers to “the disparity between women and men and girls and boys in relation to digital adoption and their relative opportunities to access, use and benefit from digital technology.” ¹³ This divide is caused by “barriers such as cost, network coverage, security, harassment, trust, and technical literacy.” ¹⁴
Digital Inclusion	This refers to “the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of Information and Communication Technologies (ICTs).” Five key elements include: (1) Affordable, robust broadband internet service; (2) Internet-enabled devices that meet the needs of the user; (3) Access to digital literacy training; (4) Quality technical support; and (5) Applications and online content designed to enable and encourage self-sufficiency, participation and collaboration.” ¹⁵
Digital Infrastructure	This is “part of a country’s infrastructure that makes digital services possible.” ¹⁶
Digital Literacy	This refers to the “ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.” ¹⁷
Digital Skills	This refers to the ability to use digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information to function in a knowledge society.

Types, Dimensions and Categories of Digital Divides

Types and Dimensions of Digital Divides

There are three commonly recognized **types of digital divides**, including the usability divide, the access divide, and the quality-of-use divide.¹⁸ With technological advancements, these types have been expanded to include the gender gap, generational gaps, amongst others.¹⁹

Figure 2: Digital Divide. Source: [Iberdrola](#).

- **Access divide.** It refers to the possibilities that people have to access this resource. This is where socio-economic differences between people and between countries come into play, since digitisation requires **very costly investments and infrastructure** for less developed regions and for rural areas.
- **Use divide.** It refers to the **lack of digital skills**, which impedes the handling of technology. In this regard, and to give an example, the ITU points out that there are 40 countries in which more than half of their inhabitants do not know how to attach a file to an email.
- **Quality of use gap.** Sometimes they have the digital skills to find their way around the Internet, but not the knowledge to make good use of and **get the most out of it**. For example, with regard to access to quality information.

Building on these types are the **dimensions of the digital divide** which are crucial for understanding the overlapping nature of the digital. These include (*this list is not exhaustive*):

1. **Connectivity Divide:** this refers to users of population who do not have access to digital connectivity technologies or infrastructure. This divide draws attention to the global intra-urban (low-income areas with lower broadband adoption rates) and urban vs. rural divide, which divide is also replicated at a regional level.²⁰ Concerningly, this divide impacts equity,

innovation, and economic development, noting that numerous societal aspects are tied to digital connectivity. For example, digital transformation drives by governments has transferred a lot of government services, such as applying for a national ID, online. This means that individuals without access to the Internet or to reliable Internet connectivity will either face heightened challenges accessing these services or risk exclusion.²¹

2. Infrastructural Divide: this refers to in-country, regional and global differences in terms of digital connectivity infrastructure, at the technical (network, hardware, and software) and enabling physical infrastructure (roads, electricity) levels.
3. Socioeconomic Divide: this refers to the replication of the divisionary impact of socio-economic factors, including income, education, and social standing in the ICTs and digital technologies space. This divide raises issues relating to affordability, where individuals with less income are unable to allocate resources to access and use digital technologies and ICTs. It also brings the digital literacy and skills conversation to the fore, noting that individuals with less knowledge will have to invest more time and resources upskilling to be able to access and use ICTs effectively.²²
4. Demographic Divide: this refers to gaps in the access and use of ICTs and digital technologies between groups, including vulnerable and marginalized groups, based on gender, age, ethnicity, social situation, ability, amongst other characteristics/situations (*see figure 3 below*).

Figure 3: Who Experiences the Digital Divide? Source: [ITU](#), [UN-Habitat](#), [UNDP](#).

Who Experiences the Digital Divide?

Who experiences the digital divide is the fundamental question of a digital divide study. Global trends show several groups that are systematically excluded from internet connectivity.



Marginalised communities, minorities and people on the move

Categories of Digital Divides

This material explores digital divides from an *infrastructure, knowledge and use, affordability, gender, and disability perspective*.

Digital Divides and Affordability

Resource: OECD Broadband Policies for Latin America and the Caribbean: A Digital Economy Toolkit

The OECD's Digital Economy Toolkit, Chapter 6 on Affordability, Government Charges and Digital Inclusion suggests good practices aimed at increasing the affordability of broadband services and digital inclusion. It outlines mechanisms that help reduce the costs of services and devices, taking into consideration taxation and government charges. It also examines how to promote further digital and financial inclusion, by using ICTs to overcome barriers resulting from such factors as affordability or for people with special needs.

While the toolkit is applicable to the GIF LAC region, the policy recommendations relating to affordability can be used by GIF partners in other regions:

- *Increasing affordability by creating a competitive framework to promote competition and lower barriers to entry.*
- *Introducing and implementing policies for universal service and community access*
- *Ensuring service availability and affordability by addressing cost factors, i.e., taxation and other charges, directly influencing affordability of broadband and digital devices.*
- *Ensuring relevant and accessible services for disadvantaged groups.'*

Source: [OECD](#).

Beyond challenges of physical infrastructure in various GIF regions (*explored below*), bridging the digital divide requires addressing affordability concerns affecting ICT services, such as broadband and the cost of digital technologies. Affordability is defined as “*the availability of broadband access at a price that is less than two per cent of the monthly GNI per capita.*”²³ In 2022, the ITU noted that global ICT services had become “*more affordable [but the] lack of affordability continues to be a key barrier to Internet access particularly in low-income economies.*”²⁴

Notably, populations who cannot afford to pay for Internet access, digital devices or services are less likely to take advantage of opportunities available online. The Internet Society advances three queries that need to be addressed as efforts by policymakers, legislators, private sector providers, and Internet users continue to bridge the Internet affordability divide. These include: (a) “*Is that access affordable?* (b) *How does the cost compare to other essential goods?* (c) *What percentage of your income do you need to pay for access?*”²⁵

Across GIF regions, ***mobile internet connectivity*** continues to impact efforts to bridge the affordability divide. Despite more people having access to digital services and applications through their mobile devices at a global level, mobile handset affordability continues to affect poor and rural populations, where income levels are generally lower.

On income as an affordability barrier, income per household determines the ability to afford digital services as well as digital devices. Low-income households are likely to have less access to digital services and digital devices owing to the overall costs.²⁶ In addition to the impact on rural population, ‘women across low and middle-income countries (LMICs) tend to have less disposable income.’²⁷

Important Note

“Across LMICs, affordability of data has continued to improve but affordability of entry-level

internet-enabled handsets has remained relatively unchanged. Data costs have continued to reduce. In 2021, 1 GB of data cost less than 2% of monthly income in 56% of LMICs compared to 45% in 2020. However, the affordability of an internet-enabled handset has not significantly improved across all regions and for the poorest 20% of the population, the cost of a handset represents 54% of their monthly income.”

Source: [GSMA](#).

Digital Divides and Disability

Resource: Disability Digital Divide - The Use of the Internet, Smartphones, Computers and Tablets among People with Disabilities in Sweden

In 2021, Swedish researchers, Johansson, Gulliksen and Gustavsson explored digital divides in-between and within disability groups, in comparison to the general Swedish population. In their findings, the researchers concluded that:

“Overall, the results of this survey suggest that most people with disabilities are lagging behind the general population, in that:

- a. they have less access to devices;*
- b. they use the internet to pay bills less;*
- c. they use the internet for online shopping less;*
- d. they use mobile bank ID for identification less;*
- e. they feel less included in the digital society.”*

Source: [Springer Link](#).

The digital divide impacts persons with disabilities (PWDs), striking at the heart of digital inclusion and requiring digital rights advocates to advocate for accessible devices and services that are tailored to the needs of PWDs. Notably, technologies such as assistive devices require specialized hardware and software that may not be readily available or affordable for PWDs. This often leads responsible entities and authorities to shy away from adopting assistive technologies, which are viewed as a “cost and not an investment.”

Disability disaggregated data is minimal and largely available within the global north regions. As illustrated in Figure 4 below, identified challenges to disability

data span policy, legal, technology, financial issues. Despite this, efforts are underway to bridge this data gap.²⁸

Figure 4: Disdata: The Disaggregation of Disability Data. Source: [G3ict](#).

What Are the Challenges to Disability Data Disaggregation?

There are a number of challenges and obstacles. Here are some:

- Lack of available, high-quality, and reliable data in general;
- Data that is collected but that is not integrated, for example from the local up to national levels;
- Data privacy and security, particularly by people who do not want to risk sharing their sensitive personal health or financial information;
- Inaccessible technology products and services;
- Inaccessible digital information and content;
- Costly nature of adopting or adapting disaggregated disability data methodology, instrumentation, collection, etc.; and
- Limited capacity, know-how, or resources, to implement new disaggregation initiatives.

Digital Divides and Gender

Resource: The Gender Digital Divide Index (GDDI)

The GDDI is a “pilot benchmarking tool that measures a country’s progress in narrowing gender divides in digital development.” The GDDI canvasses GIF regions, including Africa, Asia (Central Asia, South and Southeast Asia), Europe, Latin America and the Caribbean.

The key findings from the index include:

- “Leading countries are geographically diverse.*
- Data dearths skew the picture.*
- Governments and businesses need more women leaders in digital.*
- GDDI is highly correlated with the provision of e-government services.*
- GDDI is correlated to world bank income classification.*
- Good foundations are necessary but not sufficient to overcome gender digital divides.*
- Offline gaps in gender equality follow women online.”*

Source: [GDDI](#).

Gender is a key factor impacting digital divides in the GIF regions, evidencing that social issues and inequalities faced in the offline world are replicated in the digital world. The *pursuit of equal Internet use* between women and men, and boy and girls, and *achieving gender parity*, i.e., “*the equal contribution of women and men in every*

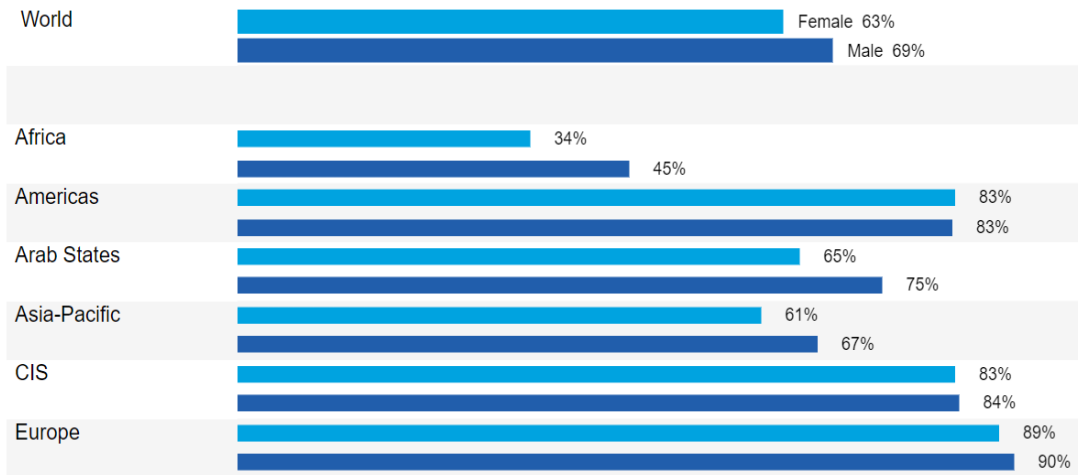
dimension of life, be it public or private”²⁹ is an important goal pursued at the international level, and within GIF regions.

However, across GIF countries and regions, there are significant digital gender divides, with women and girls facing greater challenges accessing and using technology than men and boys. As illustrated by Figure 5 below, the usage of the Internet in 2022 evidences a disparity between men and women. According to the ITU, the ratio stood at 69% for men compared to 63% for women, “*meaning 259 million more men used the Internet compared to women use the Internet... Measured by the absolute difference between the numbers of men and women online, the gender gap actually increased by 20 million.*”³⁰

A UNICEF report published in May 2023 highlights a stark disparity in internet usage, mobile phone ownership, and digital skills between adolescent girls and young women and their male counterparts aged 15-24. This inequality is particularly pronounced in low-income countries, where individuals are disproportionately affected. There is a marked internet usage discrepancy among this age group, with ‘90% of adolescent girls and women remaining offline, compared to 78% of their male counterparts.’³¹

Figure 5: % of Female and Male Population using the Internet. Source: [ITU](#).

Percentage of female and male population using the Internet, 2022



Digital Divides and Infrastructure

Resource: The Commonwealth

Based on metrics proposed by the World Bank, GSMA, ITU, and Ookla, the Commonwealth proposes four components that can be used to “assess access to, and the quality of, digital infrastructure.” These include:

- a. “**Network coverage:** this reflects the strength of the network coverage for Commonwealth countries, measured as a percentage of the population covered by 2G, 3G, 4G or 5G networks. The generation of network coverage measures the range of coverage: for example, 4G provides greater coverage than 2G.”*
- b. **Network performance:** this reflects the speed of the internet, measured by average mobile broadband download and upload speeds and broadband latencies.*
- c. **Enabling infrastructure:** this reflects the percentage of the population that has access to basic infrastructure such as electricity, telecommunications, internet bandwidths, secure servers, and internet exchange points.*
- d. **Spectrum allocation:** examining the digital dividend spectrum allocation, per mobile operator.”*

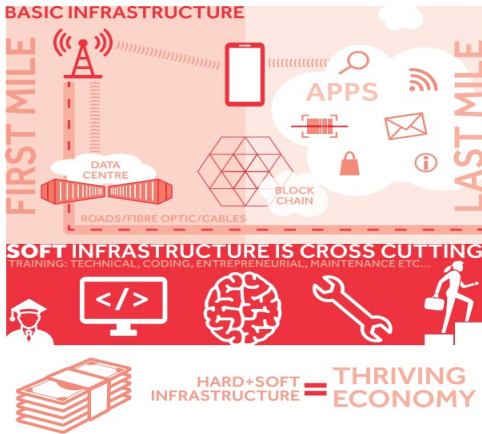
Source: [The Commonwealth.](#)

The term “digital infrastructure” refers to a “country’s infrastructure that makes digital services possible.”³² For purposes of this material, and as illustrated in Figure 6 below, digital infrastructure refers the networks, hardware and software

required for communication, data transmission, and digital services, including communications infrastructure and physical infrastructure.

This includes *(but is not limited to)* cable/satellite/telecommunications networks (e.g., passive telecommunications infrastructure such as mobile towers), wired and wireless technologies, such as broadband connections, data centers. It is also imperative that countries develop and strengthen their enabling physical infrastructure enabling infrastructure, such as road networks and electrification, which are critical for ensuring reliable access to digital services and networks.³³

Figure 6: Synergy between hard and soft digital infrastructure. Source: [The Commonwealth](#).



Two issues continue to impact GIF regions to varying degrees, including the *rural-urban infrastructure divide* and *investments in communications infrastructure*. The gap between urban and rural areas, in terms of access to internet connectivity, mobile and cable networks, amongst others, is glaring amongst GIF countries. As Industrial Transformation, Indonesia notes:

*“One primary challenge is the **cost of infrastructure deployment**. Rural areas often have lower population densities, making it financially unviable for internet service providers (ISPs) to invest in expanding their networks. Additionally, geographical barriers such as rugged terrains or remote locations make infrastructure deployment more challenging and costly. Limited availability of skilled*

personnel and regulatory complexities further contribute to the challenges faced in expanding rural internet access.”³⁴

To address this rural-urban infrastructure divide, concerted efforts from governments and private sector players, and communities is required, necessitating financial investments, policy and regulatory support, technological innovation, and community engagement. Investments in communications infrastructure, in both rural and urban areas, facilitate efforts to improve communications and data transmission networks, tech, and services.

At the international level, the World Bank’s Digital Development practice areas supports countries, as part of its efforts to bridge the digital divide, with broadband infrastructure investments.³⁵ At the country level, governments and private sector players support rural ICT investments through *universal service and access funds*, which are a “*funding mechanism to incentivise the expansion of internet services in remote and underserved locations.*”³⁶

While the pursuit of infrastructural developments is integral, this must be accompanied by simultaneous efforts to promote a strengthened digital ecosystem, including meaningful connectivity and Internet use amongst populations. Illustratively, the GSMA’s 2022 report on the State of Mobile Internet Connectivity reveals that “living within the footprint of a mobile broadband network” does not translate to actual use of mobile internet, with about “40% of the world’s population (3.2 billion people)” falling into this category.³⁷

Digital Divides: Knowledge and Use

Important Note

“Digital technologies can help in expanding and democratizing knowledge by evenly spreading it between the developed core and the developing peripheries. Evidence suggests that digital technologies are in fact helping to expand knowledge, but are not succeeding in democratizing it. That is, digital technologies are helping to bridge the digital divide

(narrowly defined), but are insufficient to close the knowledge divide. Democratizing knowledge is more than a matter of connectivity and access to digital devices. It requires strengthening the “analog foundations” of the digital revolution—competition, education (skills), and institutions—that directly affect the ability of businesses, people, and governments to take full advantage of their digital investments.”

Source: [Deepak Mishra](#).

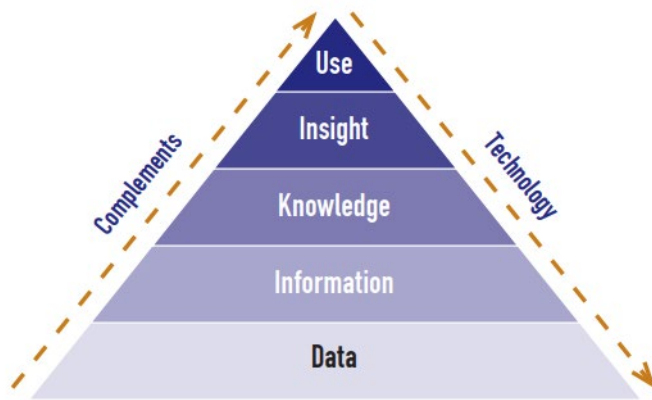
In the early 2000s, the argument that the ‘digital divide is essentially a knowledge divide’ attracted attention for its potential to deepen the gap between “(1) nations, groups of nations or regions, (2) classes, communities or persons within nations or regions,” contributing to economic disparities amongst populations.³⁸ The ‘Baku Declaration on Digital Divide and Knowledge Economy’, reflective of the principles outlined during the 2005 World Summit on the Information Society, served as evidence of this growing concern.³⁹

Generally, the digital knowledge divide refers to the uneven production, availability, and distribution of knowledge as it relates to ICTs.⁴⁰ Notably, this divide has a direct impact on individuals’ and communities’ ability to freely and fully exercise their right to access information across the GIF regions.

Bridging the knowledge gap is inadequate to close the digital knowledge divide.

As illustrated in Figure 7 below, to address this and promote the uptake and actual use of digital technologies, it is imperative to leverage both technology and human ‘complements,’ and promote digital literacy and skills amongst the local populace. Critically, digital literacy proficiency grants users’ agency to go beyond *accessing* digital information and services to *harnessing* this information to their advantage, including promoting their economic, social, cultural, and civic circumstances.⁴¹

Figure 7: Digital Technologies and Knowledge. Source: [Coveo](#).



Digital Content Availability

Resource: World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI)

The W3C WAI provides an ‘Accessibility Fundamental Overview,’ which is a compilation of useful material geared at promoting web accessibility. Web accessibility means that “people with disabilities can equally perceive, understand, navigate, and interact with websites and tools,” and this is an integral part of diversity, equity, and inclusion (DEI).

GIF partners can utilise the following tools and resources:

- a. [Introduction to Web Accessibility](#)
- b. [Accessibility: It’s About People](#)
- c. [Essential Components of Web Accessibility](#)
- d. [Accessibility Principles](#)
- e. Digital Accessibility Courses:
 - [Digital Accessibility Foundations – Free Online Course](#)
 - [Course List of Digital Accessibility Education, Training, and Certification](#)

Source: [WC3 WAI](#).

Digital content availability intersects with digital connectivity (*presupposing its assuredness*), content availability (format and language) and accessibility considerations. The availability and accessibility of digital content is directly linked to individuals’ capacity to engage with content online, in a meaningful manner. Digital content availability, and specifically language and accessibility, not only

condition users' experiences online, but also creates a dichotomy between 'legitimate' versus 'illegitimate' digital content.

On one hand, inaccessible websites and web tools impact many adults and children, including older users and PWDs, by failing to address age-related impairments and the varied disabilities faced by PWDs, including visual, auditory, speech, and cognition challenges. On the other hand, language is a key indicator in determining digital content availability, with the 'digital language divide' referencing inequalities in accessing and using digital content with an impact on inclusivity and diversity online. Generally, English remains the most used language in creating digital content.⁴²

Important Note

“Of the world’s 7,151 languages, more than half don’t have any digital footprint. This phenomenon is described as the digital language divide and unless it is addressed, could accelerate the extinction of thousands of languages.... World language resource Ethnologue reported that about 40% of languages are now [endangered](#), often with fewer than 1,000 speakers remaining. Meanwhile, [just 23 languages](#) account for more than half the world’s population. If a language falls out of use, so does knowledge of the rich cultures and histories they describe.”

Source: [Memuna Konteh](#).

To bridge this digital language divide and shatter the dominance of knowledge and material published in the English language, the digital rights and IF community has pushed for ***digital content localization***. Localization refers to the “*adaption of language and software to the regional specification of the target user,*” going beyond translation to incorporate “locally accepted cultural norms that guide people’s behavior and interactions.”⁴³

Resource: Mozilla’s Common Voice Project

Mozilla’s Common Voice project seeks to shatter the underrepresentation of non-English speakers, people of colour, disabled people, women and LGBTQIA+ people in voice-enabled technology. Through the project, Mozilla is supporting the generation of datasets built on the

Kiswahili (Africa's most spoke language) and Romansh (Swiss) languages.

Sources: [Common Voice Project](#): [Kiswahili](#) and [Romansh](#).

Companies are championing content localization; Mozilla is spearheading this through the 'Mozilla Localization Project' that commenced in 2006.⁴⁴ Currently, Mozilla's localization efforts include localizing its products and translation of articles, both of which are community-driven initiatives.⁴⁵ Google also encourages digital content creators and developers with 'multiple page versions for different languages or regions to update their language or region to ensure that users are directed to the most appropriate page.'⁴⁶

Corporate Social Responsibility (CSR) and Philanthropy

Resource: Mandatory Legislation

In 2014, through a legislative amendment of India's Companies Act (2013), the government introduced compulsory Corporate Social Responsibility (Section 135). This amendment places an obligation on companies to:

- *Constitute a Corporate Social Responsibility Committee, for companies with a 'net worth of INR 500 crore or more (USD 60.3 million) or turnover of INR one thousand crore or more (USD 121 million) or a net profit of INR five crore or more (USD 603, 460) or more.*
- *Spend 2% of their average net profit for the past 3 years on CSR activities, which must be provided under a Corporate Social Responsibility Policy.'*

This trend is visible in other South and Southeast Asia countries, including Indonesia and the Philippines. Generally, these CSR laws seek to impose obligations on private sector entities to support government efforts to reduce widening divides, including digital divides, and support national economic development.

Sources: India, [The Companies Act \(2013\)](#). Indonesia, [2007 Indonesian Law No. 40](#); Philippines, [Corporate Social Responsibility Act](#).

Under the international human rights framework, the State bears the primary responsibility to ensure the promotion, protection, and fulfilment of the rights of its citizenry.⁴⁷ In the digital divide context, the State bears the primary responsibility of ensuring that all citizens have equal and affordable access to essential digital resources, including high-speed internet, electronic devices, and digital literacy training, to promote equitable participation in the modern digital society.⁴⁸

Due to the reality that the digital divides are numerous and complex, it is imperative to deploy the multi-stakeholder approach, involving government, private sector, the international community, civil society, philanthropists, ICT users, amongst others. While philanthropic activities extensively support efforts at the local and regional levels to bridge digital divides, the role of Corporate Social Responsibility (CSR) and Corporate Digital Responsibility (CDR) are infrequently discussed in the digital rights and IF spaces.

CSR/CDR: Many companies recognize their social responsibility to contribute positively to society, which recognition extends to narrowing the digital divide. By investing in initiatives that provide digital infrastructure, education, and access to underserved communities, businesses can help bridge the gap. This support is *voluntary*, but some states are mandating CSR activities in their jurisdictions (*see above*).

CSR refers to the “*idea that a business has a responsibility to the society that exists around it.*”⁴⁹ In the digital divide context, the core businesses engaging in digital divide interventions included companies involved in the ICT space, including tech and telecommunications companies.

Increasingly, as entities embrace digital technologies, the concept of **CDR** has taken root. CDR builds on CSR, requiring “*organizations to develop a comprehensive, coherent*

set of norms, embedded in their organizational culture, to govern the development and deployment of digital technology and data.”⁵⁰

Example: CSR Initiatives to Bridge the Digital Divide

- **Nokia:** this multinational tech, IT, and consumer electronics company has deployed 110 CSR programs in 34 countries, directly impacting 614, 149 beneficiaries by pushing to connect the disconnected and driving digital literacy (of technologies) and skills. Nokia’s CSR activities are driven by the 2030 SDGs.

Sources: [Nokia](#).

Philanthropic efforts generally fund programs ranging from infrastructural support to offering digital literacy training, distributing devices, and establishing internet connectivity in remote areas. These activities facilitate empowerment, education, and economic opportunities for marginalized populations, ultimately contributing to a more inclusive and equitable digital landscape and supporting sustainable development.⁵¹

Philanthropy refers to *“benevolent behavior, usually in the form of charitable gifts, toward others in society.”*⁵² Generally, philanthropy is intended to provide *ancillary* support to individuals, groups, and communities where state interventions are either inadequate or have not yielded intended results.

Philanthropy actors include entities who are independent and not affiliated with the state, such as individual philanthropists, foundations, nonprofit entities, amongst others. These actors allocate private resources to bridge the digital divide. These resources *“encompass funding, operations, policy dialogue and advocacy, as well as in-kind assistance,”*⁵³ spanning engagements deployed at the *“local, regional and/or international levels under a defined legal status.”*⁵⁴

Figure 9 below illustrates the top philanthropic funders (at the foundation level) in the US, some of whom also fund digital rights organizations across GIF countries,

such as the Ford Foundation.⁵⁵ A report by Connect Humanity, a fund advancing digital equity, notes that only four US states received “69.2% of funding, leaving only 30.8% going to the remaining 47 states combined.”⁵⁶ This reveals the presence of a potential imbalance in the allocation of funding for digital divide efforts in the United States.

Figure 9: Top 10 funders of digital divide grants by dollars awarded, 2018-2020. Source:

[Candid/Connect Humanity.](#)

	Name	Location	Dollars awarded	No. of grants
1	Ford Foundation	NY	\$20.8 M	41
2	New Venture Fund	DC	14 M	22
3	Foundation to Promote Open Society	NY	4.5 M	16
4	The JPMorgan Chase Foundation	NY	3.8 M	7
5	Cleveland Foundation	OH	2.8 M	6
6	The Susan Thompson Buffett Foundation	NE	2.8 M	2
7	John D. and Catherine T. MacArthur Foundation	IL	2.5 M	6
8	Mozilla Foundation	CA	2.4 M	19
9	Seattle Foundation	WA	2.4 M	15
10	Silicon Valley Community Foundation	CA	2.3 M	31

Findings

COVID-19 pandemic as a +-change agent for digital divides: the COVID-19 pandemic galvanized private sector and philanthropic stakeholders across GIF countries to invest heavily in bridging the digital divide. However, some of these multi-stakeholder efforts were short-lived, with some authors suggesting that the pandemic exacerbated inequalities amongst populations and regions.⁵⁷

Discontinuation of CSR activities by digital companies: in May 2023, the World Bench Marking Alliance, an alliance of organizations shaping the private sector’s contributions to achieving the SDGs, released an insight report detailing companies’ contribution to digital inclusion. In the report, it was observed that **24 out of 38 companies (63%) that had initiated COVID-19 CSR activities had**

“discontinued them, even though the initiatives were often aimed at vulnerable groups that continue to face social and economic challenges.”⁵⁸

Narrow Funding Pool: while the current funders are contributing vast resources to bridging the digital divide, more funders are needed to expand the funding pool.⁵⁹ Notably, funding is required by local and regional actors working directly with communities to tackle more nuanced dimensions of the digital divide.

Contextualization is key: local, regional, and international CSR and philanthropy efforts should ideally be based on local needs, ICT strategies or pursue SDG goals to ensure synergy with state efforts. In India, local companies with global presence support government-led ICT initiatives, which may be attributed to the mandatory CSR requirement.⁶⁰ Notably, mandating CSR challenges the notion of business self-regulation, but this has the potential to push firms to “embrace and even surpass the stipulations of the law in their CSR contributions.”⁶¹

Important Note

“CSR activities conducted by ICT firms do not have any national or state-level plan and appear to be determined by the geographic location of the companies and not by the development indices. This indicates that the ICT industry as a whole needs to have a proper CSR strategy based on development indices to decide its course of action to bridge the digital divide.”⁶²

Source: [Indian Council for Research on International Economic Relations.](#)

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