



Digital Health & Rights Project

Defining Digital Health: Recommended Definitions on Digital Health and Human Rights for Policy-Makers

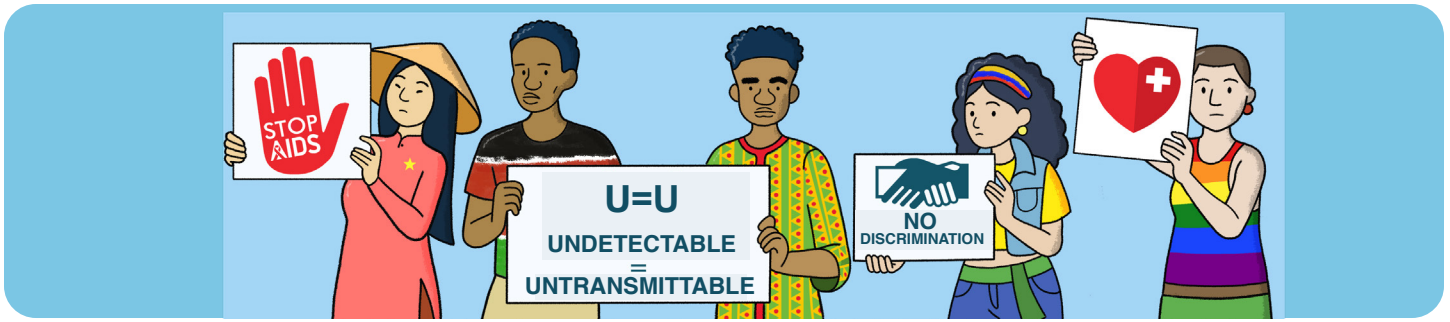
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Language matters, and how we define digital health can shape how we experience it. However, digital health stakeholders often define key terms in different ways. This can result in difficulties when policy-making, as deciding to use one definition may exclude others and therefore the varied experiences and understandings of the subject.

The Digital Health and Rights Project (DHRP) brings together international social scientists, human rights lawyers, health advocates, and networks of people living with HIV, to conduct research and advocate for rights-based digital governance in Colombia, Ghana, Kenya, Vietnam, and [globally](#)¹. Since 2021, DHRP has conducted transnational participatory action research and community-engaged research with over 600 young adults and experts in Bangladesh, Colombia, Ghana, Kenya and Vietnam. DHRP currently hosts Community Advisory Teams in Colombia, Ghana, Kenya and Vietnam.

‘Digital Health Technologies’

Existing Definitions:

UN documents do not officially define ‘digital technologies’ but use the phrase frequently. For example, the Global Digital Compact opens by acknowledging that ‘Digital technologies are dramatically transforming our [world](#)².

Suggested Changes:

The DHRP has defined digital technologies as: ‘the systems, tools, and infrastructures that collect, process, store, and share digital data. They shape how individuals, communities, and institutions communicate, work, learn, govern, and engage in society, influencing everything from daily life to global [systems](#)³.

As a result, the DHRP defines digital technologies and digital spaces slightly differently. Digital technologies are ‘the systems, tools, and infrastructures that collect, process, store, and share digital data. They shape how individuals, communities, and institutions communicate, work, learn, govern, and engage in society, influencing everything from daily life to global [systems](#)⁴.

‘Digital platforms’ or ‘digital spaces’ go beyond this, thinking about the broader online environment, including social media platforms and the internet, and their effect on civil, political, economic, and social [rights](#)⁵.

We therefore recommend that any policy document on digital health outlines a clear definition that both delimits the scope of the included digital technologies and also remains

In this commentary, we draw on this research and ongoing engagement with the communities with whom we work to propose definitions that arise from our experience as a diverse, interdisciplinary consortium that engages with lived experience of communities as well as legal, advocacy and academic definitions. We note that definitions may evolve and change over time as our knowledge and experience of digital technologies also evolve, and will also vary across different contexts. The definitions we propose are therefore not static, but opportunities to engage in the way that communities are currently experiencing digital health.

Definitions

- Digital Health Technologies
- Digital Health
- Digital Rights
- Emerging and systemic digital challenges
- Digital Divides and Digital Inclusion
- Technology-facilitated abuse
- Digital Literacy and Digital Empowerment

flexible to future developments i.e. makes reference to ‘new and emerging technologies. In addition, definitions should distinguish between ‘digital technologies’ and ‘digital spaces’.

Recommended Definition:

Digital Technologies: The systems, tools, and infrastructures that collect, process, store, and share digital data. They shape how individuals, communities, and institutions communicate, work, learn, govern, and engage in society, influencing everything from daily life to global systems. When it comes to health this may refer to technology applications from e-health and telemedicines, to the use of big data sets, and new and emerging technologies such as artificial intelligence.



'Digital Health'

Existing Definitions:

The definition of digital health has evolved, particularly over the past decade, as technologies themselves have evolved. For instance, in the WHO Digital Investment Implementation Guide, digital health refers to 'information and communications technologies, computer science, and data' but does not reference eHealth or emerging [technologies](#)⁶.

These phrases were added in the WHO Global Strategy on Digital Health (GSDH) which defines digital health as *'The field of knowledge and practice associated with the development and use of digital technologies to improve health. Digital health expands the concept of eHealth to include digital consumers, with a wider range of smart-devices and connected equipment. It also encompasses other uses of digital technologies for health such as the Internet of things, artificial intelligence, big data and [robotics](#)'². This is a 'working definition' as opposed to officially agreed UN language, although the definition that other UN documents pull from.*

The WHO GSDH also shares principles of digital health; *'Digital health should be an integral part of health priorities and benefit people in a way that is ethical, safe, secure, reliable, equitable and sustainable. It should be developed with principles of transparency, accessibility, scalability, replicability, interoperability, privacy, security and confidentiality'*⁸.

Some scholars have recognised digital technologies as 'digital determinants' of health. Digital determinants are, *'Any factor rooted in or contingent on the digital world that can directly or indirectly influence health or wellbeing. These include access to digital platforms and technologies, harmful online content, data accuracy and algorithmic transparency, misinformation and [disinformation](#)'⁹. For instance, the WHO has said, *'Access to the internet, availability of digital devices and digital literacy are among the most urgent digital determinants of [health](#)'¹⁰.**

While digital health is normally understood by health practitioners as focusing narrowly on tools and platforms used within the formal health system, the general public may have a different understanding. In our research with young adults in Ghana, Kenya, Colombia and Vietnam we found incredibly varied understandings and interactions with digital technologies for health. Many youth and community members DHRP collaborates with refer to social media and social chat platforms (such as WhatsApp support groups, or Instagram, and Facebook accounts) as examples of digital [health](#)¹¹. Increasingly, many use emerging technologies such as artificial intelligence chatbots for health [purposes](#)¹².



Suggested Changes:

The DHRP defines digital health as, *'the field of knowledge and practice associated with the development and use of digital technologies to improve health. It is key to promoting the right to health, and must be governed through a human rights-based lens. Digital health includes applications in e-Health such as telemedicine, to the use of big data sets and artificial intelligence-enabled interventions. Digital health can also refer to digital spaces with a general purpose, including social media and chat functions, that are used for the purpose of health and [well-being](#)'¹³.*

We prefer this definition because, while it aligns with WHO's definition, it includes a reference to human rights as well as remaining flexible to artificial intelligence and other 'emerging technologies'. Positioning digital health as indivisible from human rights furthers efforts to protect and promote the right to health through the use of digital health technologies. As above, we also recommend that any policy document on digital health outlines a clear definition that both delimits the scope of the included digital technologies and also remains flexible to future developments i.e. makes reference to 'new and emerging technologies'.

Recommended Definition:

Digital Health: *'the field of knowledge and practice associated with the development and use of digital technologies to improve health. It is key to promoting the right to health, and must be governed through a human rights-based lens. Digital health includes applications in e-Health such as telemedicine, to the use of big data sets and artificial intelligence-enabled interventions. Digital health can also refer to digital spaces with a general purpose, including social media and chat functions, that are used for the purpose of health and well-being'*

'Digital Rights'

Existing Definitions:

The UN Secretary General has called for a human rights-based approach to digital health to protect individuals' rights online and [offline](#)¹⁴. There is not a binding or formally agreed definition of digital rights at UN level, but instead explicit rights are referred to in a digital context i.e. the right to privacy.

In light of this, certain documents have affirmed that human rights do apply in the digital age. For instance, the UN Global Digital Compact is grounded in international human rights law, *'This Compact is anchored in international law, including international human rights law. All human rights, including civil, political, economic, social and cultural rights, and fundamental freedoms, must be respected, protected and promoted online and [offline](#)'*¹⁵.

However, it is important to note that during many of these UN processes some member states have been firm in attempting to remove human rights language. This includes the 2024 Global Digital Compact negotiations and the ongoing World Summit for the Information Society review process.

Suggested Changes:

The DHRP understands digital rights as the extension of human rights to digital spaces. Just as freedom of expression, privacy, and equal access to information are protected in the physical world, similar guarantees are required in the digital world so that people can interact without violations. For example, the right to freedom of expression online, the right to privacy and protection of personal data, and the right to universal access to the Internet are essential to ensuring that digitalization does not become a source of inequality or excessive control.

There is a debate about whether these rights constitute a new generation of human rights or are simply an adaptation of traditional rights to a new environment. On the one hand, some authors propose that digital rights represent a fourth generation of human rights, arguing that digitalization has radically transformed our ways of interacting and, consequently, our rights. There is even talk of the need to redefine "digital citizenship." On the other hand, some argue that digital rights are, in essence, the same fundamental rights we already know, but that they must be reinterpreted to be effectively applied in cyberspace. This position underscores the importance of adapting existing regulations to meet new challenges, without the need to create entirely new categories.

Among civil society groups, including in our consortium, there is broad agreement that human rights should apply to digital spaces, but different schools of thought about whether to call these 'digital rights' or 'human rights in the digital age' or 'digital human rights'. For example, some prefer the phrase 'digital human rights' to clarify that the rights are not new, but are grounded in existing legal norms and obligations on member states. This aligns with current approaches in official documents that often use 'international human rights law' to describe the alignment between technology and human rights (i.e. see Global Digital Compact).

Recommended Definition:

Digital Human Rights: The application of international human rights laws, principles and standards to digital spaces.

'Emerging and systemic digital challenges'

Existing Definitions:

Increasingly, digital policies are having to be written in a way that recognises that they will quickly be outdated in comparison to advancements in technology. For example, the Global Digital Compact states that *'The digital world is evolving at pace. Our cooperation must be forward looking and capable of identifying, anticipating, assessing, monitoring and adapting to emerging technologies so that we can seize opportunities and respond to new and emerging risks and challenges'*¹⁶.

Additionally, the Global Digital Compact makes reference to interconnected global issues such as international development (*'Digital systems that communicate and exchange are critical catalysts for development'*) and environmental sustainability (*'Digital technologies unlock new capabilities and opportunities for advancing environmental sustainability'*)¹⁷.

Suggested Changes:

We recommend that policy- and decision-making stakeholders adopt the phrase 'emerging and systemic digital challenges' to recognise and integrate the rapid transformation of digital technologies and their interconnection to broader socioeconomic issues.

The phrase 'emerging and systemic digital challenges' is an efficient way of dealing with the need to recognise the ever-evolving digital landscape while acknowledging the links between digital challenges and broader socioeconomic challenges that are often historic and embedded into broader social structures, and impact how some populations experience digital health.



Underscoring the ‘emerging’ nature of digital challenges is important - it recognises that technologies are not static but constantly developing and changing, and that the challenges or risks they present are also evolving in tandem. Acknowledging the systemic nature of digital challenges allows stakeholders to better tackle such challenges, understanding the interconnected root causes that contribute to a challenge manifesting. This also supports an integrated policy approach that can bolster efforts to include historically marginalised and discriminated populations.



Recommended Definition: ‘Emerging and Systemic Digital Challenges’
 Language matters, and how we define digital health can shape how we experience it. However, digital health stakeholders often define key terms in different ways. The power of words underscores how important it is to ground our understandings of digital health in the lived experience of technology users.

To recognise the diversity in experiences, our definitions must balance being clear and applicable while also able to be used to reflect nuance and context. Additionally, definitions should be able to adapt and evolve over time.

DHRP’s participatory action research (PAR) is an example of an evidence base that can support policy-makers seeking to understand the lived realities of key issues in digital health such as digital divides and technology-facilitated abuse. PAR centers the voices of communities affected by key issues in every process, meaning that developing ideas and recommendations for policy settings does not happen in abstract but is directly shaped by lived experience.

‘Digital Divides’ and ‘Digital Inclusion’

Existing Definitions:
 There is broad acknowledgment of the need to close ‘digital divides’ and make the digital transformation more inclusive. In the Secretary-General’s Roadmap for Digital Cooperation it is noted that, ‘Digital divides reflect and amplify existing social, cultural and economic inequalities’ and that ‘underserved groups need equal access to digital [tools](#)¹⁸.

Similarly, in the Global Digital Compact it is acknowledged that ‘We can only achieve this through strengthened international cooperation that closes all digital divides between and within countries’ and that ‘Accessible and affordable data and digital technologies and services are essential to enable every person to participate fully in the digital [world](#)¹⁹.

The current WHO Global Strategy on Digital Health defines the ‘digital divide’ as ‘the gap between demographics and regions that have access to modern information and communications technology and those that do not or have restricted access. This technology can include the telephone, television, personal computers and the [Internet](#)²⁰.

Suggested Changes:
 The Digital Health and Rights Project has defined digital divides as ‘the experience of unequal access to and ability to use digital technologies. This includes inequitable access to technology and supporting infrastructure (such as reliable internet connection), unequal access to education, and restrictive gender norms, which can intersect to produce digital divides that exacerbate societal [inequalities](#)²¹. Digital inclusion means ensuring that all individuals, including marginalized groups, can have meaningful and safe access to, effectively use, and benefit from digital platforms and technologies.

We prefer this definition because it references the numerous, intersecting digital divides that contribute to digital exclusion as well as their impact on existing broader social inequalities. Additionally, it recognises that digital divides span access to technologies, supporting infrastructure, social norms, and digital skills. This responds to findings from DHRP’s research, in which young people reported divides including economic divides, geographical (urban/rural) divides, and inequalities in digital [literacy](#)²².

Recommended Definition:
Digital Divides: The experience of unequal access to and ability to use digital technologies. This includes inequitable access to technology and supporting infrastructure (such as reliable internet connection), resulting in numerous digital divides and exacerbating societal inequalities.



'Technology-facilitated abuse'

Existing Definitions:

There is not a universally agreed definition of technology-facilitated abuse (TFA) and there are some important questions and concerns linked to the complexity of this type of online abuse; what constitutes abuse in digital spaces, how do we define harm when it is mediated through technology, and what exactly is meant by 'facilitation' in this context? Addressing these questions involves engaging with broader debates on violence, agency, and what constitutes being online, as well as considering how technological mediation alters both the experience and recognition of abuse. Institutions, activists and scholars among others have approached TFA from multiple perspectives, highlighting its intersections with gender, human rights, privacy, and the evolving nature of online interactions.

At present, there is no official UN agreed language or binding actions on TFA. UN Women defines *'Technology-facilitated violence against women (TF VAW) is any act that is committed, assisted, aggravated, or amplified by the use of information communication technologies or other digital tools, that results in or is likely to result in physical, sexual, psychological, social, political, or economic harm, or other infringements of rights and freedoms'*²³.

Suggested Changes:

While many definitions focus on women and girls, our research has documented technology-facilitated abuse among other diverse populations with protected characteristics under human rights law (including sexual minorities, trans and non-binary people, and people living with HIV), as well as against health advocates and human rights defenders working in the HIV response (such as peer outreach workers and social media health champions).

Based on these findings, DHRP defines technology-facilitated abuse as: 'Abuse that is committed, assisted, aggravated or amplified using internet and communication technologies or other digital technologies, that results in or is likely to result in physical, sexual, psychological, social, political or economic harm, or other infringements of rights and freedoms'²⁴. In particular, DHRP recommends taking a 'survivor-centred approach' which emphasizes both the resilience of those harmed, their empowerment, and the importance of centring survivors' autonomy and human rights in designing a response that meets their needs (which could include e.g. psychosocial support, legal aid).

Recommended Definition:

Technology-Facilitated Abuse: 'Abuse that is committed, assisted, aggravated or amplified using internet and communication technologies or other digital technologies, that results in or is likely to result in physical, sexual, psychological, social, political or economic harm, or other infringements of rights and freedoms'.

'Digital Literacy' and 'Digital Empowerment'

Existing Definitions:

Digital literacy' is defined by UNESCO as: *'the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs, and entrepreneurship. It includes competencies commonly referred to as computer literacy, ICT literacy, information literacy and media literacy'*²⁵. Digital literacy is essential for the fulfillment of other rights (including the right to health, right to privacy, right to benefit from scientific progress, right to freedom of expression and association, etc.).

Scholars have also shared definitions of connected concepts such as 'digital citizenship', proposed by Emejulu; "We assert the need for politically informed understandings of the digital, technology and citizenship and for a 'radical digital citizenship' in which critical social relations with technology are made visible and emancipatory technological practices for social justice are developed"²⁶.

Suggested Changes:

Alongside digital literacy, we recommend the use of the phrase 'digital empowerment'.

Digital Empowerment is defined by DHRP as: 'the knowledge, skills, and competencies people develop to advocate for their rights in the digital age. These include knowledge about legal rights, advocacy skills, and digital [security](#)'²⁷. Digital empowerment goes beyond digital literacy. While digital literacy focuses on the ability to access and use digital technology, digital empowerment encompasses critical understanding of human rights in relation to digital technologies and platforms,

engaging with the systems that govern digital technology, and taking action to influence governance and decision-making. Digital empowerment is vital for realizing digital rights, which apply human rights, as enshrined by international law, to data and technology, including AI, for example, the right to privacy or the right to freedom from discrimination.

Digital empowerment does not absolve companies and/or other stakeholders of their responsibilities to ensure their technologies and platforms uphold human rights, including being transparent about how data is managed and used so that communities are able to understand how their data is being used and hold relevant stakeholders to account. Rather, we see digital empowerment as key to the mobilisation needed to enable people to envision alternative futures, to demand accountability, and to mobilise the power needed to make their vision(s) real.

Recommended Definition:

Digital Literacy: 'the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs, and entrepreneurship. It includes competencies commonly referred to as computer literacy, ICT literacy, information literacy and media literacy'.

Digital Empowerment: 'the knowledge, skills and competencies people develop to critically analyse and advocate for their rights in the digital age. These include knowledge about legal rights, advocacy skills, and digital security'.



We call all stakeholders to reflect on the words they use and how this is shaping the digital transformation of health. Young people, civil society and communities should be meaningfully engaged in shaping laws and policies to ensure that they reflect the nuances and realities of their lived experience and commit to a human rights-based digital future that is accessible for all, including those most marginalized.

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²https://www.un.org/global-digital-compact/sites/default/files/2024-09/Global%20Digital%20Compact%20-%20English_0.pdf ³<https://digitalhealthandrights.com/resource-library/report-paying-the-costs-of-connection/>

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⁶<https://www.who.int/publications/i/item/9789240010567>

⁷<https://www.who.int/docs/default-source/documents/g4dhd2a29f352b0445bafbc79ca799dce4d.pdf>

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¹¹<https://digitalhealthandrights.com/resource-library/article-the-digital-transformation-and-the-right-to-health-of-young-adults-in-bangladesh-and-colombia-a-community-engaged-study/>

¹²<https://digitalhealthandrights.com/resource-library/report-paying-the-costs-of-connection/>

¹³<https://digitalhealthandrights.com/resource-library/report-paying-the-costs-of-connection/>

¹⁴<https://www.tandfonline.com/doi/full/10.1080/15228053.2025.2452028>

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¹⁶ibid.

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¹⁸<https://www.un.org/en/content/digital-cooperation-roadmap/>

¹⁹https://www.un.org/global-digital-compact/sites/default/files/2024-09/Global%20Digital%20Compact%20-%20English_0.pdf

²⁰<https://www.who.int/docs/default-source/documents/g4dhd2a29f352b0445bafbc79ca799dce4d.pdf>

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²²<https://digitalhealthandrights.com/resource-library/report-paying-the-costs-of-connection/>

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