

# Digital Mapping & Analysis

**NEPAL** 



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## Purpose of this Document

To support the UNICEF Regional Office for South Asia's integration of digital tools, technologies, and best practices into Social and Behaviour Change (SBC) programming, this Digital Mapping outlines the existing digital interests, needs and challenges across Nepal. This document outlines the country's context, media, digital habits and preferences, emerging trends and recommendations on leveraging the existing opportunities gathered through secondary research.

This document can inform digital SBC programme design, development, and implementation at the country level based on the available insights and data from recent years.

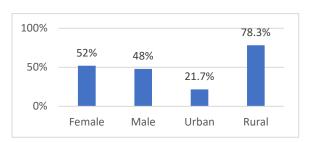




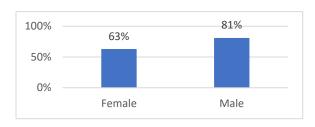


# **Demographic Overview**i

Total Population: 30.5Mii

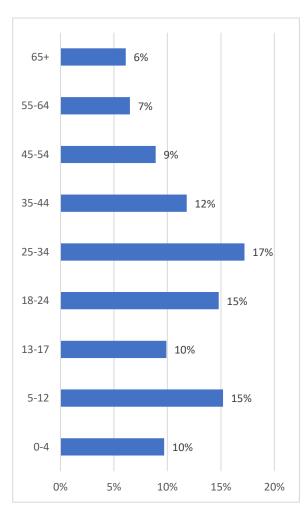


# Literacy Rate: 71% of the population over 15iiiiv v



Languages Spoken: Nepali (regional dilects) and others (Magar, Gurung, Rai, Limbu, Sunwar, Tamang, Newari, and a number of Bhutia dialects)<sup>vi</sup>

#### Age Demographics



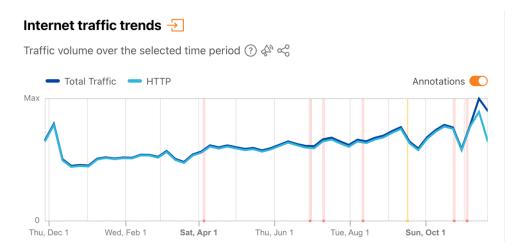
# **Digital Connectivity**

The government of Nepal has made efforts to improve digital connectivity by developing infrastructures such as fibre-optic networks and expanding mobile networks to rural and remote areas. However, the mountainous terrain and lack of electricity in many parts of the country have made it challenging to provide comprehensive coverage.

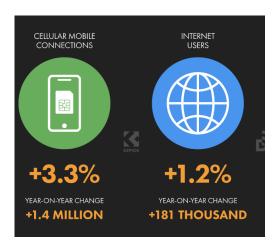
Internet Traffic Trendsix







42.78M cellular mobile connections were noted by GSMA in Nepal in early 2023 (the number is greater than the actual population, *likely due to people perhaps having more than one device*).\* Average mobile internet connection speed is 13.49 Mbps, and the average fixed internet connection speed is 48.45 Mbps.\* 70% (21.60M) of the population are internet users, and mobile (73.16%), laptop/desktop computers (26.12%), and tablets (0.72%) are the devices used to access the internet.\* 68.7% of cellular mobiles have 3G, 4G, or 5G broadband.\* However, there are issues with the affordability of internet service and digital devices, which limits access to digital technology for many people, especially in low-income and rural areas. Access to fixed-line networks and higher-speed connectivity is limited outside urban areas, and mobile networks remain Nepal's primary means of connectivity.\* All 77 districts of the country now have some basic internet connectivity.\* There is also rural-urban divide in the development, availability and accessibility of digital enterprises and there is digital exclusion amongst certain communities like Dalits and indigenous people (due to prevalent economic and social exclusion).\*

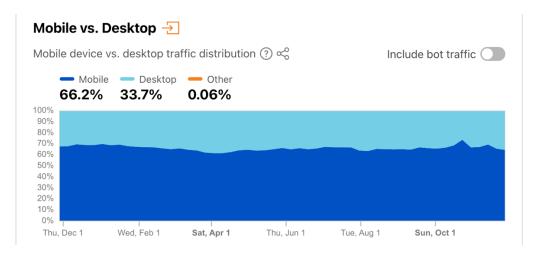


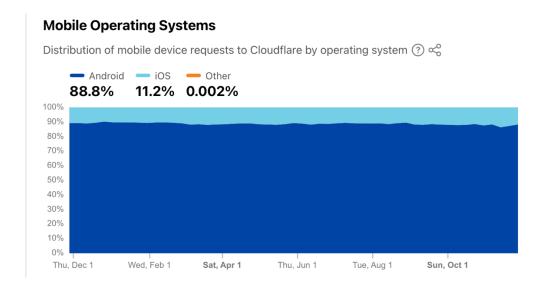
Digital Growth<sup>xvii</sup> (compared to 2022)





Other trends to Note (Nov 2022 to Nov 2023)xviii





# **Digital Divide**

#### **Gender Divide**

World Economic Forum's Global Gender Gap Report 2023 noted that parity has receded in Nepal (having achieved less than 95% parity and negative changes in parity in parliamentary positions). It is 4<sup>th</sup> in the region on the Global Gender Gap Index ranking by region, 116 globally (out of 146 countries) and has a score of 0.659 (on a 0-1 scale), a -0.033 change from 2022.xix For sub-index of Education Attainment, Nepal has a score of 0.918, 0.969 for health and survival and 0.476 for economic participation and opportunity, 0.276 for political empowerment and opportunity.xx



No relevant or recent data was found on the gender digital divide but it is noted that a digital divide among underprivileged groups, particularly women, exists and seems to be one of the major roadblocks for digital adoption in Nepal.<sup>xxi</sup> Women and girls continue to face several inequalities in Nepal and as a result are less likely to have access to and use mobile devices, computers, and the internet compared to males.<sup>xxii</sup>

Furthermore, World Bank Report on South Asia's Digital Opportunity 2022 stated that only 3% of women had used the internet or a mobile phone to access bank accounts in Nepal. In comparison, only 13% made or received digital payments, but the number of new female business owners, and new 'sole female proprietors doubled from 2014 to 2018, primarily in non-digital sectors'.xxiii

#### Lack of Affordability and Accessibility: Data and Devices

Despite recent progress, broadband usage in Nepal remains underdeveloped, with limited coverage outside large cities, and the gaps have also been a barrier to digital adoption<sup>xxiv</sup>. Due to the mountainous terrain and lack of electricity<sup>xxv</sup>, many remote areas do not have access to reliable and stable internet.<sup>xxvi</sup> Furthermore, coverage and reliability of services are poor, leading to persistent gaps in the adoption and use of services.<sup>xxvii</sup>

Prices (for data and devices) are unaffordable for many. People in Nepal continue to pay high prices for internet (cost of Mobile Broadband Data as % of GNI per capita (1GB, 2GB, 5GB Packages) were all above the 2% benchmark (average price of 1GB noted at \$0.43 in 2023\*\*xviii\*)\*\*xxii\*\* and in 2021, it was noted that on average, Nepalis would need to pay 2.6% of their gross annual income to access internet services.\*\*xxii\*\* Same goes for devices, with Nepal ranked 115th out of 134 countries in terms of device affordability. Barriers such as high customs tariffs, adoption gaps, lack of digital literacy etc hinder the access.\*\*xxii

In terms of connectivity in schools, World Bank reported that only about 6% of primary schools and 24% of secondary schools have access to basic electricity, and only 1% of primary schools and 3% of secondary schools have internet connectivity. VAXXIII UNICEF also found that two-thirds of Nepal's schoolchildren could not access remote learning during Covid-19 school closures.

To be noted, different internet expansion projects are underway by the Nepal Telecommunications Authority (NTA) to increase broadband connectivity (such as the Broadband Network Expansion Project)\*\*xxiiii and the establishment of broadband internet connections in 10,518 areas as of mid-September 2022.\*\*xxiv\*As per the Digital Quality of Life Index (DQL) report 2023, the Internet became more affordable in Bangladesh, ranked at 58th out of 121 countries (up from 77th in 2022). However, the mobile speed dropped to 113th (from 100th in 2022) but fixed speed improved (68th in 2023, up from 80th in 2022).\*\*xxxv

#### Low levels of digital literacy

Nepal's overall literacy rate for 2021 was at 71% but no relevant (or recent) data or sources were found on the digital literacy rates in the country (noted at 31% in 2019), xxxvii



but looking at some of the government initiative such as the Digital Nepal Framework, there seems to be an interest in digital skills development across Nepal.xxxviii On the Global Competitiveness Index (GCI), Nepal ranked 105th out of 141 countries (score of 44.5) for 'digital skills among active population'.xxxix

During covid-19, the e-learning platform, Sikai Chautari, was launched by The Ministry of Education, Science and Technology (MOEST) but studies showed that lack of access (devices) and connectivity (internet) hindered the learning. As per the 2021 Education Sector Analysis, '34.7% of public schools had electricity, 28.3% had computer facilities and 12.4% used computers in learning activities'. Furthermore, public school and university teachers are noted to have 'inadequate technical, content, and pedagogical support, combined with poor IT awareness'. According to the World Bank Report on South Asia's Digital Opportunity, only 12% of university graduates completed STEM education programs (to note: 7,500 students per year graduate from engineering and ICT-related courses).

#### Lack of trust in technology

Nepal is the only country in South Asia with a general-purpose law for personal data, and the country has adopted an open licensing regime and has several laws about cybercrime. However, a 2020 survey found that only 1% of Nepalis trust social media platforms, noting 'untrustworthy' content as a prime reason. Xliv

# Slow uptake: Digital financial services (DFS), e-commerce and start-up culture

Several digital financial services have been introduced in recent years in Nepal, such as mobile banking, digital payments, digital credit and insurance, and public services such as tax payment and pension schemes.\*IV Some examples include the Nagarik App, the Nepal National Single Window (NNSW) system, and the National ID Card.

The government of Nepal has also been promoting the use of digital platforms for e-commerce, e-governance, and online education to help bridge the digital divide.xivi Although most households and businesses have access to the internet, the country still lags in implementing DFS and e-commerce. During Covid-19, consumers started using DFS at a higher rate. However, usage of DFS and e-commerce is hindered by expensive and weak broadband.xivii

According to the Digital Entrepreneurship Index (104<sup>th</sup> out of 113 countries<sup>xlviii</sup>), Nepal is at the bottom of the list of South Asian countries. There are approximately '56 fintech start-ups providing products and services related to internet or mobile banking, digital wallets, agent-banking, bill payments, remittances, crowdfunding platforms and loan lifecycle management' in Nepal and there are 12 technology hubs.<sup>1</sup>





# **Digital Communications**

#### **Telecommunications**

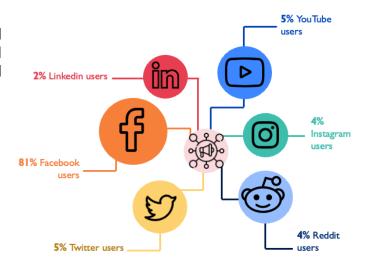
The Nepal Telecommunications Authority (NTA) is the official 'telecommunications regulatory body'.<sup>||</sup> The top three telecommunications companies include Nepal Telecom, Ncell, and Smart Telecom.<sup>|||</sup>

Domain insights (Nov 2022 to Nov 2023) liii

Top 10 Domains	•		
Daily insights into doma	ain popularity derived fro	om Cloudflare 1.1.1.1 data	3 ? ∝
1 google.com	2 googleapis.com	3 gstatic.com	4 facebook.com
5 tiktokcdn.com	6 tiktokv.com	7 gvt2.com	8 googlevideo.com
9 youtube.com	10 doubleclick.net		

#### Social Media

Approximately 41% (12.60M) in Nepal are social media users. Iiv 11.35M users were aged 18 and above and 44% and 56% are female and male, respectively. Iv



% of social media users that access third-party websites/information via clicks or taps on links published in

#### Social Media Platform Overview

	User Demographics	Usage
Facebook	<ul> <li>11.85M users<sup> vii </sup></li> <li>44% Female, 56% Male<sup> viii </sup></li> <li>Largest user group is 18-24</li> </ul>	Facebook is becoming the main source of domestic and international news and information in Nepal. There is also an

<sup>\*</sup>Reference for the figure<sup>lvi</sup>



		increase in Nepalese businesseses using Facebook to promote and market their services and products. Ix
Instagram	<ul> <li>2.15M users<sup>lxi</sup></li> <li>43% Female, 57% Male<sup>lxii</sup></li> <li>Largest user group is 18-24</li> </ul>	While many young people use the app to follow their favourite celebrities, models, influencers and public figures, it is also used for people to becoming influencers and Instagram famous. Instagram is also becoming popular with politicians who use it to promote their political agendas and connect with young people by showcasing their personalities beyond their political personas. Ixiv
Linked In	<ul> <li>1.2M members<sup>lxv</sup></li> <li>Largest user group is 25-34<sup>lxvi</sup></li> </ul>	To connect with employers, businesses and to network. Students are also using LinkedIn to enhance their careers or find new opportunities. Students are also using LinkedIn to enhance their careers or find new opportunities.
YouTube	Data not available	YouTube is widely used by Nepali television stations, and Nepali TV stations are encouraged to join the YouTube partnership program to help drive revenue. IXIX
Twitter	• 553,600 users <sup>lxx</sup> User group data not available	Twitter is used to stay informed about current events, share news and information, network with others, and express their opinions and thoughts on various topics. Social issues are noted on Nepali twitter along with range of other topics such as sports, arts etc.
TikTok	Data not available	For entertainment, creative expression, and social connection. Many users use TikTok to create and share funny, creative, or informative videos, and to connect with other users who share similar interests. Also being to promote businesses, products, and services, and for expressing creativity and social awareness. Ixxiii

#### **Social Messaging Applications**

Viber is noted to have more than 10M users in Nepal<sup>lxxiv</sup> while Facebook Messenger has around 13M users (noted at 9M by another source<sup>lxxv</sup>). lxxvi Another top messaging application is WhatsApp, but no usage data is available.



#### Social Media Key Influencers<sup>1</sup>

The top ten key influencers, as identified by the criteria indicated in Annex 1, have been identified below. Local macro influencers, who are celebrities or key opinion leaders will be the priority criteria used for this digital mapping. As they have the most potential for meaningful partnerships with UNICEF, reaching target communities is likely with this cohort. However, key influencers may need to be re-identified depending on the Country Office priorities and the evolving nature of social media influencers.

Influencer	Social Media Platform	Number of Followers	Category	Type of Content
Aditi Budhathoki	Instagram Facebook Twitter	Instagram – 2.2M Facebook – 986K Twitter – 8.4K	Entertainment Celebrity	Social Posts
Rajesh Hamal	Instagram Facebook Twitter	Instagram – 371K Facebook – 13K Twitter – 4.4K	Entertainment Celebrity	Social Posts
savya_rides	Instagram YouTube TikTok	Instagram – 114K YouTube – 188K TikTok – 261K	Lifestyle Celebrity	Social Posts Videos Blogs
priyaalimbu	Instagram TikTok	Instagram - 95.1K TikTok – 228.5K	Lifestyle Celebrity	Social Posts Videos Blogs
Elias Saikaly	Instagram YouTube	Instagram – 103K YouTube – 75.4K	Key Opinion Leader	Social Posts Videos Blogs
Ashishma Nakarmi	Instagram YouTube TikTok	Instagram – 107K YouTube – 3.86K TikTok – 30.2K	Entertainment Celebrity	Social Posts Videos
Dixta	Instagram	122K	Entertainment Celebrity	Social Posts Videos
Rekha Limbunii	Instagram	188K	Entertainment Celebrity	Social Posts Videos
Sabita Karki	Instagram TikTok	Instagram – 131K TikTok – 8.6K	Entertainment Celebrity	Social Posts Videos Blogs
Swoopna Suman	Instagram YouTube TikTok	Instagram – 138K YouTube – 342K TikTok – 52.5K	Entertainment Celebrity	Social Posts Videos

<sup>&</sup>lt;sup>1</sup> Social influencer statistics may have changed since they were last checked in January 2023.



Suraj Singh Thakuri	Instagram	Instagram – 111K	Entertainment Celebrity	Social Posts Videos
Faizal Outlaw	Instagram	Instagram – 90.5K	Entrepreneur Key Opinion Leader	Social Posts Videos
Priyanka Karki	Instagram Facebook YouTube Twitter	Instagram – 1M Facebook – 2.6M YouTube – 483K Twitter – 121.6K	Actress Model Film Director	Social posts Videos
Yabesh Thapa	Instagram Facebook TikTok YouTube	Instagram – 64.7K Facebook – 24K TikTok – 22.4K YouTube – 335K	Singer	Social posts Videos
Asian Gaming & tech	Youtube	254K	Online gaming	Videos
OSnepal	Facebook Twitter YouTube	Facebook – 5.1M Twitter – 3K YouTube – 125K	Online news media	Social posts Videos
eKantipur	Instagram Facebook Twitter YouTube TikTok	Instagram – 144K Facebook – 4.3M Twitter – 1.4M YouTube – 92K TikTok – 75.7K	Online news media	Social posts Videos

#### **Online Groups**

Group Name	Social Media Platform	Number of Followers	Category	Type of Content
Nepali cricket fans on Facebook	Facebook	565.1K	Cricket	*Private group
Routine of Nepal banda	Facebook	3.9M	News	News Social Posts
Easy Nepali recipe hamro achar	Facebook	1.3K	Cooking Food	Social posts
<u>Gyanmandu</u>	Viber	8.3K	N/A	Messaging
<u>República</u>	Viber	589	News	Messaging
<u>Nagarik</u>	Viber	839	News	Messaging



#### Gaming platforms and communities

Group Name	Social Media Platform	Number of Followers	Level of Influence	Type of Content
Nepal Gaming Community	Facebook	28K	Online gaming	Social posts
Nepal Esports Association	Facebook	11K	Online gaming	Social posts
Nepal Esports Association	Discord	1.7K	Online gaming	Voice over Internet Protocol Instant messaging
Nepali Gaming Community (NGC)	Facebook	13.7K	Online gaming	*Private group
PUBG Mobile Nepal Official	Facebook	18.5K	Online gaming	Social posts
Dota 2 Nepal	Facebook	14K	Online gaming	Social posts
<u>Nepali</u> <u>Minecrafters</u>	Facebook	4.2K	Online gaming	Social posts
Fortnite Nepal	Facebook	1.4K	Online gaming	Social posts
Among Us Nepal Official	Facebook	7.2K	Online gaming	Social posts
Valorant Nepal Community (Official)	Facebook	2.4K	Online gaming	Social posts

#### **Traditional Media Platforms**

Nepal Television Corporation is state-run, and it operates NTV and several other metro channels; Radio Nepal is the state-run radio station and National News Agency. Larvii. There are 250 community radio stations in Nepal, in various languages price and most televisions, especially the primetime news channels, have a large audience and most television stations tend to focus on news-based programming because it is cheaper and easier to produce. Laxix

#### Streaming Services/OTT

- Local OTT services:
  - WOW Time app: first of its kind OTT in Nepal and Nepal Telecom owned<sup>lxxx</sup>



#### o **NETTV**

• From the international OTT services, Amazon Prime seems to be the most accessed/viewed online streaming platform noted in Nepal, with an estimated 2 million subscribers. IXXXI Other such services viewed in Nepal include IQIYI, iFlix, Zee5 etc.

#### Dating (social) Apps are also used for communication and socialising purposes:

- Milyo App (local)
- Other apps like Tinder and Bumble are popular amongst teenagers but the number of users is still lower than other social media platforms like Facebook and Instagram.



#### Education

A variety of digital education tools and platforms in Nepal are being used to enhance learning and teaching. Some examples include:

- ePaath: used in Nepal to provide online learning resources and materials for students. IXXXIII
- Digital textbooks: the government of Nepal has been working to digitise textbooks, making them more widely accessible to students in remote areas on platforms like e-Pustakalava. Discrete
- Mobile Learning apps such as Neemacademy, Midas, Loksewa Nepal are used to provide educational content and resources to students. IXXXV

#### Health

There are several digital health initiatives currently underway in Nepal that aim to improve access to healthcare and medical information. Some examples include:

- The eHealth project, which the government of Nepal is implementing in partnership with various organisations, aims to improve the management and sharing of health information using Electronic Health Records (EHR) and Health Information Systems (HIS). |xxxvi
- Effective Broadband for Health project provided remote health centres with the tools and capacity they needed to remotely track their diagnosis, prognosis, and recovery track.

#### **Child Protection**

In Nepal, several digital child protection initiatives aim to protect children from online sexual exploitation, cyberbullying, and other online risks. Such as the Child Helpline Nepal 1908, operated by the Child Workers Concerned Centre in Nepal, which is a 24/7

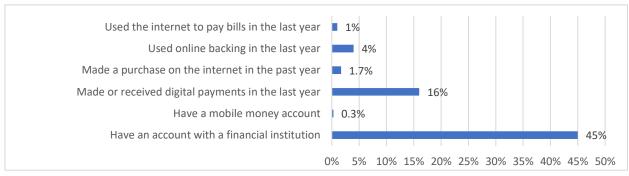


helpline for children in Nepal that provides support and assistance for child protection issues, including online sexual exploitation and cyberbullying. IXXXVIIII

Furthermore, the Online Child Protection Procedure 2021 was approved by the Ministry of Women, Children, and Senior Citizens as per Section 86 (1) of the existing Children's Act to curb online abuses of minors. The procedure states that safe devices and connectivity should be provided in schools, online activity should be monitored, safety filters should be installed to protect minors and reporting of abuses, etc. It also stated that public libraries should follow the same and internet cafes should ensure that no minor is accessing the internet unattended. IXXXIX

# **Digital Ecosystem and Infrastructure**

Nepal's government adopted the Digital Nepal Framework (DNF) in 2019, which is a comprehensive digital development strategy. The DNF aims to digitise eight sectors (including health, education, and agriculture) through 80 different initiatives.\*\*c Nepal has been investing in digital infrastructure, including developing data centres, e-governance systems, and digital platforms for various services. This has allowed the growth and development of a digital start-up ecosystem, with several incubators and accelerators supporting the development of new digital businesses and technologies.\*\*ci The digital ecosystem is positively impacting the economy with the growth of the technology sector and increased opportunities for ecommerce and digital services.



Percentage of population aged 15+ that uses or owns each product or service. All data was collected from Digital 2022 Nepal Overview Report.

#### Regulations promoting Digital Transformation

The Government of Nepal has regulations in place to promote the development and use of technology, protect citizens' online privacy and security, and ensure the stability and reliability of the country's digital infrastructure. Examples include laws on data protection, xcii cybercrime, xciii and e-commerce, xciv regulations on the use of personal data, xcv and policies that encourage the development of the information and communications technology (ICT) sector.xcvi

Although Nepal has a national cyber law called the Electronic Transaction Act (ETA) 2063, it fails to keep up and deal with newly evolving cybercrimes and cybersecurity



threats. The lack of proper updates in the ETA has created loopholes that criminals can exploit.xcvii Also, Nepal's ICT industry is generally limited when it comes to regulating complex online interactions.xcviii

#### Artificial Intelligence

While artificial intelligence (AI) in Nepal is still in its early stages, it is being utilised in the banking and health sectors. Banking and financial institutions have started using Albased technology in their fin-tech, mobile banking, SMS banking, internet banking, payment gateways, and e-wallets. Within the health sector, some IT companies use AI to provide services to hospitals.xix Additionally, universities are starting to provide AI courses, and AI start-up companies are slowly emerging.

In 2019, the Government of Nepal identified AI as crucial to developing and strengthening the country's industries. The increase and prioritization of AI has been highlighted in the Government of Nepal's 2019 Digital Nepal Framework. The framework identified AI, along with other new technology tools for the growth of the country's economy. Within the same year, the government also published the Science, Technology, and Innovation Policy 2019 which identified artificial intelligence as essential to the rapid development of numerous industries. While the government identified the importance of AI in these two documents, the country has not yet passed any policies or legislation related to AI.

# Challenges, Opportunities and Recommendations

Challenge/ Opportunity	Narrative	Recommendations
Challenges		
Gender Digital Divide	Females continue to face several inequalities in Nepal and as a result are less likely to have access to and use mobile devices, computers, and the internet compared to males. <sup>CV</sup>	<ul> <li>Assess the situation of girls and women in India: carry out formative research (identify KABP, barriers, challenges hindering the move to digital and opportunities and best practices that can be emulated to bring girls/women online) etc.</li> <li>Collaborate with the gender focal points/section and develop a digital SBC strategy (based on the learnings from the research) as a foundation to bring girls and women online; address the negative gender norms (and the hindering social and cultural norms), educate the men/fathers/mothers/community and religious leaders/other decision makers on the positive outcomes of ensuring girls/women have access and devices, create STEM programs/tools/platforms for girls, advocate for/create women/girls only safe online spaces, ensure online safety (and mental health) is a core part of the interventions/discussions etc</li> <li>Embed the discourse about girls' access to digital into the ongoing SBC programmes (or as part of any new intervention).</li> <li>Utilise digital tools and social listening on a continuous basis to gather insights (behaviour as well) for impactful community engagement and for M&amp;E as well.</li> <li>Develop specific programs, in partnership with the relevant ministries, private sector organisations etc, to encourage and promote digital entrepreneurship culture among women (support with financing, establishing businesses and connecting to digital services to support the inception and promotion).</li> </ul>

		<ul> <li>Partner with women entrepreneurs to reach and engage with girls/women in urban and rural areas and encourage the use of digital technology as a source of information and livelihood (offline to online movement).</li> <li>Establish (in consultation with the women/girls) digital centres/hubs/labs/platforms, and partner with local private sector organizations to develop gender-sensitive digital platforms.</li> <li>Mobilise influencers, religious leaders and activists to advocate for online, and device, access for girls/women.</li> <li>Partner with tech companies to promote their safety measures/safeguarding tools to parents as a stepping stone to bringing girls online and to provide safeguarded devices to girls to ensure ongoing and sustained access.</li> <li>Partner with telecoms to:         <ul> <li>Provide connectivity to girls/women: such as special data packages or zero-rated apps/content. Especially for women/girls in rural or remote areas.</li> <li>Expand the reach of existing digital (annex 3) and elearning platforms, specifically targeting girls/women in rural areas to develop their digital literacy and skills.</li> </ul> </li> </ul>
Data and Device unaffordability		<ul> <li>Advocate for policies that promote affordable internet and device access for all.</li> <li>Implement initiatives that bridge the gap between online and offline communities, such as all SBC interventions ensuring that communities can be guided/referred to online via offline means (or vice-versa).</li> <li>Partner with telcos/mobile network operators/internet service providers to offer low-cost/free internet packages for low-income (rural) communities, as part of the SBC interventions and programmes.</li> <li>Support the development of community-led solutions (engage</li> </ul>
Limited access to digital infrastructure in rural areas	Nepal has a challenging terrain, with many remote and mountainous regions. This makes it difficult to provide internet access to these areas, as building and maintaining infrastructure is costly and difficult. <sup>cvi</sup>	<ul> <li>the youth), such as shared community Wi-Fi networks/centres.</li> <li>Advocate for investments in digital infrastructure, such as broadband networks, improved electricity supply and wider (and affordable) connectivity.</li> <li>Support the ongoing national programs for digital transformation and inclusion. And partner with the government and private sector to improve access in rural areas (via/through SBC interventions, applying design thinking, utilizing low-data/mobile-based platforms to engage populations and raise awareness etc.)</li> <li>Partner with relevant authorities to develop alternative solutions such as local access community networks, community-led networks and 'internet cafés' to provide device access and satellite-based internet solutions.</li> <li>Implement initiatives that bridge the gap between online and offline communities. Do a service mapping to ensure that SBC digital interventions are linked to relevant support, and this also reduces the online and offline gaps (a community being reached online should be able to get support offline and vice-versa). The loop should be completed.</li> </ul>
Low digital literacy and skills	Even though internet penetration rates are on the rise, the uptake of essential digital services is low, due primarily to inadequate digital literacy. cvii	<ul> <li>Advocate for recent and relevant data to ascertain the situation of digital literacy and skills in Nepal (segregated by gender). Support the relevant authorities/partners to carry out the research (nationwide).</li> <li>Advocate for a balanced curriculum to improve both traditional and digital literacy skills.</li> <li>Partner with the Ministry of Education (and any other relevant authority and UNICEF sectors) to develop digital literacy and online safety programs for schools and communities. Use gamification and interactive learning tools (Al and games) to make digital literacy programs engaging and fun.</li> </ul>

Partner with local NGOs to provide digital skills and online safety



		training to marginalized communities.
		<ul> <li>Strengthen the capacity of teachers, educators (TOT) and parents on digital skills and online safety.</li> </ul>
		<ul> <li>Partner with CBOs/CSOs, private sector or media to develop and implement educational, edutainment or gaming programmes to improve literacy and awareness of the online platforms/tec/tools etc.</li> </ul>
		<ul> <li>Leverage social media platforms and communities to raise awareness and develop the community's digital literacy skills: promote the use of social media for educational purposes. For example, Facebook Groups can be used for collaboration, co- creation and discussions etc. or to create edutainment programmes.</li> </ul>
		<ul> <li>Apply design thinking when developing new or existing digital interventions, tools and platforms to improve literacy skills.</li> </ul>
		<ul> <li>Partner with Al and tech companies and organisations, to establish platforms and tools (such as online courses, games, training, hubs, labs, centres etc) that can digitally empower communities, or leverage the existing ones, that can be sustained. Apply design thinking when developing new or existing digital interventions, tools and platforms to improve literacy skills.</li> </ul>
		<ul> <li>Partner with telcos to provide connectivity and data to ensure that digital tools and platforms are accessible to the community. This will also encourage digital adoption.</li> </ul>
		<ul> <li>Partner with the gaming community as an entry point to build digital literacy and skills and promote online safety.</li> </ul>
		Utilise digital tools (annex 3) and social listening on a continuous basis to gather insights (behaviour as well) for impactful community engagement and for M&E as well.
Opportunities		
Reach of Telecos/Mobile Network Operators (MNOs)	42.78M cellular mobile connections were noted by GSMA in Nepal in early 2023 (the number is greater than the actual population, <i>likely due to people perhaps having more than one device</i> ). cviii 70% (21.60M) of the population are internet users. cix	<ul> <li>Partner with NTA and telecos/mobile network operators to:         <ul> <li>Expand the reach of digital interventions and programmes, particularly in remote and underserved areas.</li> <li>Provide subsidised or free data for specific interventions/programmes/activities/community.</li> <li>Develop and implement data-driven interventions to bridge the digital divide.</li> </ul> </li> <li>Use their micro-segmentation on high engagement channels to target communities and people for specific digital interventions.</li> </ul>
Investment in digital financial services	The promotion of digital financial services sector, aiming to reach the country's large unbanked population, will help streamline Nepal's economy, and close the digital literacy gap.cx	<ul> <li>Advocate for policies and regulations that promote the development of digital financial services (and in turn access, affordability and skills) in the country.</li> <li>Partner with banks and financial institutions to develop and implement digital social innovations and solutions.</li> <li>Develop partnerships with international financial institutions to provide technical assistance, reach, engagement and funding for digital projects/interventions/solutions.</li> </ul>
Government's commitment and investment in	The digital Nepal framework is a commitment and sign that the Government of Nepal is willing to invest the resources needed to	Collaborate with the government to develop, support and implement programs, policies and regulations that promote digital development in the country, with a focus on the gender digital divide and the rural population.



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creating a digital Nepal	support the advancement of technology in the country. cxi	<ul> <li>Advocate for the inclusion of digital literacy and online safe programs on all levels.</li> <li>Develop partnerships with government agencies to delive digital services and solutions to the 'last mile'.</li> <li>Establish programmes/activities (in collaboration with the relevant ministries and partners etc) that encourage all promote tech startups for social and behaviour change (hackathons, investment funds, innovation funds etc).</li> <li>Develop partnerships with ICT companies to deliver digits services and solutions to communities.</li> </ul>
		Al focus:
		<ul> <li>Leverage the interest and focus of the government on AI as support its growth for SBC work: partner with relevant authorities to work together on ethical and protection issues and of leveraging the technology for children and other communities</li> </ul>
		<ul> <li>Introduce AI into SBC programming and interventions (interrand external capacity building).</li> </ul>
		<ul> <li>Partner with AI start-ups and organisations to develop digi- solutions (and elements) to enhance SBC work in Nepal.</li> </ul>
		<ul> <li>Leverage the existing Al-powered platforms and too partnerships, content support etc.</li> </ul>
Increase in and availability of e- learning platforms	Education platforms are being developed at a rapid pace. CXII Not only will this increase accessibility of education and learning for students and adults, it will also push for more up to date cybersecurity initiatives and policies to	<ul> <li>Support the expansion of e-learning platforms, particularly remote and underserved areas, to improve access to educatic and information (relevant content): apply design thinking argamification to make platforms more interactive, relevant arengaging.</li> <li>Partner with universities and vocational training centers provide accreditation to the learning online and create digit skills training and online safety content for other communities.</li> </ul>
	foster a safer digital learning environment.cxiii	such as parents/caregivers/frontline workers etc



# Annex 1 – Key Influencer Criteria

For the purpose of this document, key influencers have been defined in three ways - by the number of followers, types of content, and level of influence.

Defining influencers by the **number of followers** can be categorised into four types.

- Mega influencers are people with a large number of followers, usually over 1M followers on at least one social media platform. Mega influencers tend to be celebrities who have gained their fame offline, however some will have gained their followers online and through social activities.
- Macro influencers usually have 40,000 to 1M followers on social media platforms. This group tends to have high profiles and can be great for raising awareness on issues. It may be easier to connect with macro influencers, as there tends to be more of them than mega-influencers.
- Micro influencers have between 1.000 to 4.000 followers and tend to be ordinary everyday people who have become well-known and popular for their knowledge about a specific topic. This means that their followers tend to be interested in that specific topic. These influencers tend to have smaller followings but higher engagement and influence with their followers.
- Nano influencers have less than 1,000 followers and tend to be experts in a highly specialized or technical field. Similar to the followers of micro influencers, they tend to have smaller followings but higher engagement and influencer with their followers. However, they will not have as much influence as micro influencers as they have less followers.

Defining influencers by types of content which can be categorised into four types.

- **Bloggers** tend to have the most authentic, active, and engaging relationship with their followers.
- Video makers are popular types of content, and most tend to create and share videos on
- Podcasters are the newest form of content to start generating followers and is growing increasingly popular.
- **Social posting only** is rare and tends to happen in parallel with other types of content creation.

Defining influencers by level of influencer which can be categorised into two types.

- Celebrities can sometimes lack credibility with specific target audiences, or around certain types of topics.
- Key opinion leaders are industry experts that can also be considered influencers who gain credibility among followers and people in general due to their technical expertise, qualifications, position, and experience. Key opinion leaders can include journalists, academics, industry experts, and/or professional advisors.

Macro and micro influencers, who are celebrities or key opinion leaders will be the priority criteria used for this digital mapping. As the potential for meaningful partnerships with UNICEF, to reach their target communities seems most likely with this cohort.



# Annex 2 – Digital Public Goods (DPGs) case studies

#### **UNICEF Ghana**

UNICEF's Ghana office is a Pathfinder and runs the StartUp Lab, which assists sustainable entrepreneurs to develop their products and business models. The lab also serves as an incubator for open source startups and educates those considering it. The objective is to prepare DPGs from the StartUp Lab to apply for UNICEF's Venture Fund investment. The Country Office evaluates the StartUp Lab's solutions through its programmatic sections and collaborates with national institutional partners to incorporate open-source work into broader policy solutions. UNICEF employs various tools, including the StartUp Lab, Venture Fund, and Innovation Hubs, to support innovation at different stages. In Ghana, the UNICEF Country Office used this system to uncover and advance two DPGs: Bisa App and EduNOSS, as well as DPG nominee Project Konko. For more information visit this site.

#### **UNICEF** Philippines

UNICEF Philippines started their DPGs Pathfinding Pilot in early 2021 with two objectives. Firstly, to discover how existing technical country capacity can be advantageous to DPGs and improving Technology for Development (T4D) that are relevant to UNICEF and the government's programmes. And secondly, developing a tool that would allow the sharing of knowledge and capacity among sectors. For more information visit this <u>site</u>.

#### **UNICEF** Innovation Funds

UNICEF Innovation funds exclusively invest in open-source technology solutions from new and emerging companies. Through its investments, UNICEF is strengthening communities, increasing the number of DPGs, and having an impact on children. For more information visit this site.

#### Safe YOU: Virtual Safe Space for Women

Safe YOU was launched in Northern Iraq (Kurdistan) in partnership with UNFPA Iraq and UNFPA Armenia in 2021. With the help of UNICEF Innovation, Safe YOU was recognised as a Digital Public Good (DPG), a digital tool aimed at achieving sustainable development goal number 5 (Gender Equality) as set by the United Nations Secretary General's 2020 Roadmap for Digital Cooperation. Safe YOU aims to be a key resource for evidence-based policy-making through our sophisticated AI data analysis system. This will lead to the prediction & prevention of Violence Against Women & Girls. For more information, visit the site <a href="here">here</a>.



# Annex 3 – UNICEF Digital Platforms

**U-Report** is a messaging tool that enables young people to interact with and raise their voices on issues that are important to them. It is operated by local government, organizations, and young people who record gather information, tips, and opinions from mobile device users on a range of issues. Based on the data and insights gathered by U-`reporters, the results are shared with the relevant communities and stakeholders. For more information on U-Report, visit this site. Access UReport South Asia here: https://southasia.ureport.in/

RapidPro collects data via short message service (SMS) and other communication channels (e.g. voice; social media channels, such as Facebook Messenger, Telegram, WhatsApp) to enable real-time data collection and mass-communication with target end-users, including beneficiaries and frontline workers. The technology allows users to design, pilot, and scale direct mobile outreach services without the help of a software developer in both normal development contexts and humanitarian emergencies. For more information on RapidPro, visit this site.

Internet of Good Things (IoGT) aims to build people and communities' knowledge by closing the digital divide. For more information on IoGT, visit this site. Access South Asia IoGT here: https://sa.goodinternet.org/en/ or the Pakistan site here: https://nanhayqadam.org/ur/

All Children Learning is a regionally focused platform designed to strengthen assessment capacity and learning. The platform offers four different guidance's (government, emergencies, development, and teaching) to improve the users' assessment capacity and learning. For more information on All Children Learning, visit this site.

OKY app: the world's first menstruation education and period tracker app co-created with girls, for girls. Access here: Oky Nepal and Oky India

Bebbo app, developed by the UNICEF Regional Office for Europe and Central Asia, is an application that supports responsive, positive parenting. It aims to provide comprehensive information about early childhood development and parental care in a parent-friendly format. Bebbo also supports the dissemination of messages and information related to COVID-19 prevention and protection for children. For more information: https://www.bebbo.app/about-us

USupportMe: part of the Mental Health and Psychosocial Wellbeing Portfolio at UNICEF. It is an app for on-demand psychosocial support services. After successful pilots in East and Central Asia, we're scaling up this innovative solution to meet its full potential.

UNllearn: online national learning and knowledge-sharing platform which hosts dynamic education, skills, and other content from different states in India and from other countries.

**AGORA** is a platform that provides learning opportunities to UNICEF's staff, partners, and supporters. The learning opportunities range from specific thematic areas to strategies to languages to career support. For more information on AGORA, visit this site.

**INFORM** provides UNICEF and partners with a turnkey solution for field-based data collection, management and visualization. Inform supports UNICEF's strategic outcomes and strengthens our position as the global leader in data for children. For more information: visit this site.

**UNICEF SOCIAL MEDIA PLATFORMS** 



### **Endnotes**

#### Definitions to Note:

- Fixed Broadband Internet: High-speed connectivity for public use of at least 256 Kbit/s or more in one or both directions (downloading and uploading). It includes cable modem Internet connections, DSL Internet connections of at least 256 Kbit/s or higher, fibre and other fixed broadband technology connections (such as satellite broadband Internet, Ethernet LANs, fixedwireless access, Wireless Local Area Network, WiMAX, etc.). cxiv
- Mobile Broadband: Mobile broadband technology allows for a wireless wide area network (WWAN). In simple terms, it provides wireless high-speed Internet access to portable devices by way of radio towers.cxv
- Gross Domestic Product (GDP) per Capita: is the sum of gross value added by all resident producers in the economy plus any product taxes (less subsidies) not included in the valuation of output, divided by mid-year population.cxvi
- Unbanked: people with no bank account.cxvii
- Underbanked: people with insufficient access to banking. cxviii

- https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=NP
- https://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS?end=2021&locations=NP&start=1981&view=chart
- v https://data.worldbank.org/indicator/SE.ADT.LITR.MA.ZS?locations=NP

https://mocit.gov.np/application/resources/admin/uploads/source/EConsultation/EN%20Digital%20Nepal%20Framework%20V8.4% 2015%20July%20%202019.pdf

https://mocit.gov.np/application/resources/admin/uploads/source/EConsultation/EN%20Digital%20Nepal%20Framework%20V8.4% 2015%20July%20%202019.pdf

- ix https://radar.cloudflare.com/np?dateRange=52w
- x https://datareportal.com/reports/digital-2023-nepal
- xi https://datareportal.com/reports/digital-2023-nepal
- xii https://datareportal.com/reports/digital-2023-nepal
- https://datareportal.com/reports/digital-2023-nepal

https://mocit.gov.np/application/resources/admin/uploads/source/EConsultation/EN%20Digital%20Nepal%20Framework%20V8.4% 2015%20July%20%202019.pdf

xv https://reviews.com.np/article/nepal-telecom-4g-service-reaches-all-districts#:~:text=of%20Nepal%20Telecom.-

Nepal%20Telecom%20now%20provides%204G%20coverage%20to%20all%2077%20districts.the%20Hillv%20and%20Terai%20a rea.

- xvi https://kathmandupost.com/columns/2022/08/28/digital-inclusion-and-digital-equity
- xvii https://datareportal.com/reports/digital-2023-nepal
- xviii https://radar.cloudflare.com/np?dateRange=52w
- https://www3.weforum.org/docs/WEF\_GGGR\_2023.pdf
- xx https://www3.weforum.org/docs/WEF\_GGGR\_2023.pdf
- https://kusoed.edu.np/journal/index.php/je/article/view/554
- https://kathmandupost.com/art-entertainment/2017/04/28/the-gender-digital-divide
- https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
- https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content

https://mocit.gov.np/application/resources/admin/uploads/source/EConsultation/EN%20Digital%20Nepal%20Framework%20V8.4%

- 2015%20July%20%202019.pdf xxvi https://www.internetsociety.org/blog/2020/06/closing-the-digital-divide-in-nepal/
- https://www.nepalitelecom.com/digital-divide
- https://www.cable.co.uk/mobiles/worldwide-data-pricing/
- https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
- xxx https://kathmandupost.com/money/2021/10/27/nepalis-pay-more-for-internet-than-other-south-asians-report-says
- https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
- xxxii https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
- https://thehimalayantimes.com/business/nepal-telecommunications-authority-introduce-15-broadband-projects-targeting-61districts
- https://www.fiscalnepal.com/2020/09/28/1462/72pc-progress-in-broadband-projects/
- xxxv https://surfshark.com/dql2023?country=NP
- https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=NP

https://datareportal.com/reports/digital-2023-nepal

https://datareportal.com/reports/digital-2023-nepal

vi https://www.britannica.com/place/Nepal/People

```
xxxvii https://thehimalayantimes.com/business/illiteracy-old-policies-hurdles-for-digital-nepal
https://nepaleconomicforum.org/how-far-has-the-digital-nepal-framework-come/
xxxix https://idea.usaid.gov/cd/nepal/information-and-communications-technology-ict
xl https://nepaleconomicforum.org/how-far-has-the-digital-nepal-framework-come/
https://nepalindata.com/resource/NEPAL--EDUCATION-SECTOR-ANALYSIS-2021--2078-BS/
https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
https://myrepublica.nagariknetwork.com/news/only-one-percent-nepalis-trust-social-media-platforms-survey/
xlv https://nepaleconomicforum.org/how-far-has-the-digital-nepal-framework-
come/#:~:text=Digital%20Connectivity%20has%20sen%20an,as%20of%20mid%2DFebruary%202022.
    https://www.undp.org/nepal/digital-transformation-led-covid-19
https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
https://kathmandupost.com/money/2022/12/21/nepal-ranks-way-down-in-digital-entrepreneurship-and-
innovation#:~:text=Nepal%20is%20ranked%20104th%20in,and%20support%20systems%20for%20entrepreneurs.

xlix https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
https://www.nta.gov.np/
https://www.nta.gov.np/license
https://radar.cloudflare.com/np?dateRange=52w
https://datareportal.com/reports/digital-2023-nepal
https://datareportal.com/reports/digital-2023-nepal
https://datareportal.com/reports/digital-2022-nepal
https://datareportal.com/reports/digital-2023-nepal
https://napoleoncat.com/stats/facebook-users-in-nepal/2023/11/
https://www.nepalitimes.com/banner/facebook-nation
https://b360nepal.com/how-nepal-uses-social-media/
https://datareportal.com/reports/digital-2023-nepal
https://napoleoncat.com/stats/instagram-users-in-nepal/2023/11/
https://myrepublica.nagariknetwork.com/news/are-you-on-insta-lots-of-nepali-youngsters-spend-hours-on-it/
https://www.nepaldemocracy.org/how-nepali-politicians-are-leveraging-instagram-to-connect-with-constituents/
https://datareportal.com/reports/digital-2023-nepal
https://napoleoncat.com/stats/linkedin-users-in-nepal/2023/11/
https://www.nepaldatabase.com/the-rise-of-linkedin-in-nepal-how-professionals-are-leveraging-the-platform-for-career-growth
https://prajwal-karki.com/linkedin-marketing-in-nepal-
2021/#:~:text=How%20popular%20is%20Linkedin%20In,are%20already%20there%20on%20Linkedin.
https://medialandscapes.org/country/nepal/media/social-networks
https://datareportal.com/reports/digital-2023-nepal
http://research.butmedia.org/wp-content/uploads/2020/09/Nepal-Twitter-Users-Survey-2019.pdf
https://www.nepalitimes.com/here-now/tiktok-has-taken-nepal-by-storm
https://www.bilizmaharjan.com/how-tiktok-is-impacting-the-nepali-society/
https://english.khabarhub.com/2021/12/202411/
https://datareportal.com/reports/digital-2023-nepal
https://napoleoncat.com/stats/social-media-users-in-nepal/2022/12/
https://www.bbc.com/news/world-south-asia-12561481
https://www.bbc.com/news/world-south-asia-12561481
https://medialandscapes.org/country/nepal
https://www.ntc.net.np/services/wow-time
https://flixpatrol.com/streaming-services/subscribers/nepal/
https://english.onlinekhabar.com/dating-apps-nepal-prospects-problems.html
https://epaath.olenepal.org/
https://www.olenepal.org/e-pustakalaya/
https://www.tipsnepal.com/7-best-e-learning-apps-for-students-in-nepal/
https://goldencommunity.org.np/service/e-health-nepal/#:~:text=E%2DHealth%20%E2%80%93%20Under%20the%20partnership,services%20for%20early%20childhood%20vaccin
ation.

https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/https://www.internetsociety.org/blog/2018/10/how-telemedicine-is-impacting-healthcare-in-rural-nepal/how-telemedicine-is-impacting-healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healthcare-in-rural-nepal/healt
https://childhelplineinternational.org/nepal-child-helpline-nepal-1098/
https://dig.watch/updates/26-oct-nepal-passes-online-child-safety-
act#:~:text=For%20protecting%20children%20online%2C%20the,of%20the%20existing%20Children's%20Act.
https://mocit.gov.np/application/resources/admin/uploads/source/EConsultation/EN%20Digital%20Nepal%20Framework%20V8.4%
2015%20July%20%202019.pdf
xci https://kathmandupost.com/money/2022/07/25/government-private-sector-join-hands-to-promote-startup-ecosystem-in-nepal
https://openknowledge.worldbank.org/server/api/core/bitstreams/4044c18e-d6ba-50aa-8e3f-efade3ca5ab1/content
https://www.coe.int/en/web/octopus/country-wiki-ap/-/asset_publisher/CmDb7M4RGb4Z/content/nepal
xciv https://www.waftcommerce.com/blog/ecommerce-related-laws-in-
nepal#:~:text=Electronic%20Transaction%20Act%20regulates%20the,bill%20Information%20Technology%20Act%202075.
xcv https://www.dataguidance.com/notes/nepal-data-protection-
```

overview#:~:text=Rule%2011%20of%20the%20Privacy,which%20it%20has%20been%20collected.

xcvi https://samriddhi.org/news-and-updates/ict-for-improving-governance-in-nepal/



xcvii http://nepalsecgov.org/cyber-security-and-internet-governance/

https://www.nepjol.info/index.php/njmr/article/download/43023/32602/126007

- https://www.nepallivetoday.com/2022/02/10/how-is-artificial-intelligence-changing-the-world-what-nepal-should-do-to-tap-it/
- https://www.nepallivetoday.com/2022/02/10/how-is-artificial-intelligence-changing-the-world-what-nepal-should-do-to-tap-it/

ci https://english.onlinekhabar.com/pro-artificial-intelligence-in-nepal.html

- cii https://nepalindata.com/media/resources/items/15/bEN\_Digital\_Nepal\_Framework\_V7.2March2019.pdf
- https://www.naamii.org.np/wp-content/uploads/2021/11/Infographic\_Al\_policy\_Nepal.pdf
- civ https://www.naamii.org.np/wp-content/uploads/2021/11/Infographic\_Al\_policy\_Nepal.pdf
- ttps://kathmandupost.com/art-entertainment/2017/04/28/the-gender-digital-divide
- https://www.internetsociety.org/blog/2020/06/closing-the-digital-divide-in-nepal/
- https://lib.vt.edu/magazine/spring-2021/creativity-

innovation/nepal.html#:~:text=Research%20showed%20that%20the%20digital,cybercrime%20because%20of%20the%20pandemic

- cviii https://datareportal.com/reports/digital-2023-nepal
- cix https://datareportal.com/reports/digital-2023-nepal
- cx https://www.nrb.org.np/contents/uploads/2022/11/Financial-Literacy-Framework-2022.pdf
- https://nepalindata.com/media/resources/items/15/bEN\_Digital\_Nepal\_Framework\_V7.2March2019.pdf
- https://digitalgurkha.com/future-of-elearning-in-nepal/
- https://digitalgurkha.com/future-of-elearning-in-nepal/
- https://uis.unesco.org/node/3079645
- https://www.lenovo.com/us/en/faqs/pc-life-faqs/what-is-mobile-

broadband/?orgRef=https%253A%252F%252Fwww.google.com%252F

cxvi https://databank.worldbank.org/metadataglossary/statistical-capacity-

indicators/series/5.51.01.10.gdp#:~:text=GDP%20per%20capita%20is%20the,divided%20by%20mid%2Dyear%20population.

https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/technology-media-telecommunications/deloitte-cn-tmt-inclusionen-200924.pdf

cxviii https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/technology-media-telecommunications/deloitte-cn-tmt-inclusionen-200924.pdf