



Leave No One Behind (LNOB)

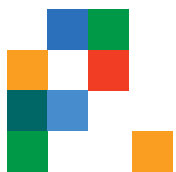
Despite the transformative impact of technology on the world, many people remain digitally excluded and, hence, left behind. Those who are excluded digitally tend to be those who are also disadvantaged and underrepresented in other ways. Leave no one behind (LNOB) is the central, transformative promise of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). As a core value of the SDGs, LNOB lays out a commitment to eradicate poverty in all its forms; end discrimination and exclusion; and reduce inequalities and vulnerabilities that undermine the potential of individuals, societies, and all of humanity.

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LNOB involves reaching the poorest of the poor and those who endure persistent discrimination, so it requires combating discrimination and inequalities in countries that leave certain people and groups behind. Persistent forms of discrimination can be due to class and economic status; race, ethnicity, or religion; national origin and citizenship status; sex, sexual orientation, gender identity and expression, and sexual characteristics (SOGIESC); language and literacy; disability; age; and geography (rural versus urban). When a person holds multiple identities that are the target of discrimination (e.g., a woman who is disabled and also a refugee), the effects of exclusion can be even greater.

This discrimination is often structural—the result of laws, policies, and social practices that cement certain benefits and privileges for more powerful or privileged groups or for the “status quo.” It undermines certain groups’ ability to access services, socio-economic benefits, wealth, status, and fundamental rights and freedoms. Because structural discrimination is embedded in societies and in the world order, it is also ingrained in digital development. Exclusion has been identified in technology

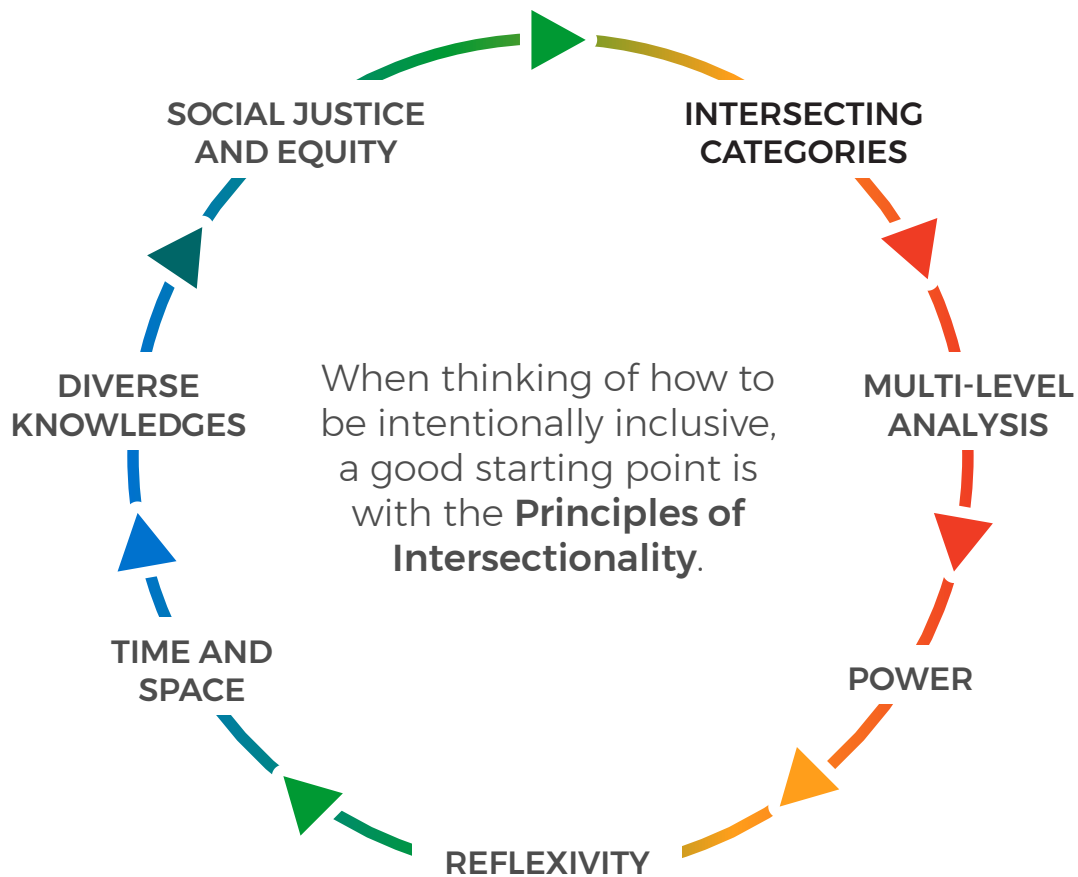


ABOUT THE DIGITAL PRINCIPLES

The Principles for Digital Development are nine living guidelines that are designed to help integrate best practices into technology-enabled programs and are intended to be updated and refined over time. They include guidance for every phase of the project lifecycle, and they are part of an ongoing effort among development practitioners to share knowledge and support continuous learning. [The Digital Principles](#) were created in a community-driven effort, the result of many lessons learned through the use of information and communication technologies (ICTs) in development projects.

platform design, creation, deployment, content curation, moderation, and management. It can be seen in who accesses networks, devices, and platforms; who can find relevant content or services in their own language; and who is heard or silenced on social media platforms. It is also a factor in how data is captured and used to target, surveil, discriminate, exclude, and oppress certain individuals or groups. Structural discrimination across the globe is why we have a “digital divide.”

Digital developers and the Digital Principles community need to address LNOB to ensure that our work does not inadvertently deepen exclusion and cause or exacerbate harms. This paper sets out some of the areas where LNOB does and does not come into play regarding the Principles and makes some proposals for broadening our understanding of this critical concept.



(Hankivsky et al., 2012, pp. 35-38)



ABOUT THE PULSE ON THE PRINCIPLES PAPER SERIES

The Digital Principles were created in 2008 by practitioners primarily working for Global South organizations on donor-funded digital projects taking place in the majority world. In the years since, the community of organizations endorsing the Principles has grown to include academic institutions, multilateral organizations, donors, NGOs, and private-sector companies. The Principles have become a core part of how we understand responsible digital development practice—as a standard, a capacity-building framework, a project design practice, and a curriculum. Yet the Principles don’t cover everything we now know to be good practice, and their design focus at the project level can mean they miss important longer-term or systemic considerations. [This series](#) applies the nine Principles to different ethical considerations to help practitioners ensure that their work takes these critical areas into account and to encourage community conversations about the future development and improvement of the Principles.

Leave No One Behind in the Principles for Digital Development

The concept of leave no one behind comes up in the Principles in a number of ways. It is particularly relevant to *Design With the User*, *Understand the Ecosystem*, *Design for Scale*, and *Be Data Driven*. However, the Principles do not explicitly address aspects of exclusion, and they do not include any clear reference to the need for specific efforts to address inequities and structural barriers that many individuals and groups face.

LNOB AND THE PRINCIPLES AT A GLANCE



Design With the User

The *Design With the User* principle aims to ensure that people who will use or be impacted by a particular tool, technology, or platform are included in the design process so that it incorporates their needs and is fit for their context. This principle could be interpreted to include a focus on intentional inclusion of individuals and groups that have been historically marginalized or underrepresented.



Understand the Existing Ecosystem

As noted in the current iteration of the Principles, ecosystems are defined by the culture, gender norms, political environment, economy, technology infrastructure, and other factors that can affect an individual's ability to access and use a technology or participate in an initiative. This principle should be interpreted as requiring the implementer to understand how the ecosystem functions in ways that include and exclude different individuals and groups based on certain characteristics or identities. This will allow them to begin thinking about how to address the identified drivers of exclusion in the ecosystem.



Design for Scale

Greater scale can lead to better coverage, so this principle is well linked to the idea of leave no one behind. *Design for Scale* could be interpreted to imply that unless we work intentionally to include those who have been excluded in the past, greater scale will not necessarily mean reaching more of the people who need support.



Be Data Driven

Access to timely and quality information can help agencies make smarter decisions. In the drive to be data driven, we need to ensure that data sets are representative of all, including the most marginalized groups. This principle could be interpreted as reminding us that if certain groups are left out of data sets, decisions will be inaccurate, and we run the risk of excluding key parts of the population.

Building on Leave No One Behind in the Principles for Digital Development

Below are some areas where we could expand on our current understanding of the Principles in practice to ensure we are not unintentionally leaving people behind in digital development.



1. BE INTENTIONALLY INCLUSIVE WHEN DESIGNING WITH THE USER

Merely wanting to be inclusive is not enough. Agencies need to incorporate specific and active efforts aimed at inclusivity. When designing with the user, sometimes we only include one type of user. It's important to engage a wide range of people in our programming and platforms and to do it on their terms. Practitioners could be more intentional about inclusion in the following ways:

- **Include unrepresented, underrepresented, vulnerable, and traditionally marginalized groups.** When designing digital development interventions, organizations will need to work with a wider range of users and ensure that the needs, rights, and voices of dominant or majority groups do not overshadow those of less powerful minority groups in the design process. Organizations will need sufficient facilitation skills, time, and resources to ensure they can include people or groups who speak different languages, cannot travel, or are not part of traditional development or community structures. A core motto drawn from the disability community is “nothing about me without me.” This should be applied broadly to all groups when considering inclusion in the design process.
- **Ensure that participation is not token or extractive.** Oftentimes, marginalized and vulnerable groups are asked to participate in ways that do not fully value their inputs or place an additional burden on them. Practitioners need to be mindful of this when involving people in projects or initiatives and find appropriate ways to compensate them for their time and input. It's important to involve people as full partners in decisions and the design process over the long term as much as possible.
- **Make sure your design is not unwittingly discriminatory.** Including users from underrepresented or marginalized groups in the design process can help avoid embedding discrimination in your intervention. Examples of discriminatory design include forcing a person to choose a binary gender (male or female), and assuming that users are from a dominant group and priming default settings for that group. Discriminatory platforms that are designed primarily for dominant groups can exclude potential users. And if a user from a marginalized group does choose to engage, they can have a negative experience that could lead them not to engage further. By involving a broad and diverse group in the design phase, these types of challenges are more likely to be flagged and resolved early in the process.
- **Establish diverse design and decision-making teams.** Teams with diverse skills and awareness of intersectional experiences can help ensure there is a focus on inclusion. Diverse team members can help each other catch areas of oversight or exclusion early on. This will require agencies and organizations to consider inclusivity in their overall hiring practices.

An intersectional approach requires you to understand how multiple identities and power structures amplify the exclusion of certain people and groups.



2. BROADEN YOUR UNDERSTANDING OF THE ECOSYSTEM

In order to fully understand the ecosystem, practitioners must look at the ways historical contexts have created today's ecosystems, many of which leave people behind. This principle could be interpreted as requiring inclusion in the assessment and design phase of digital development interventions.

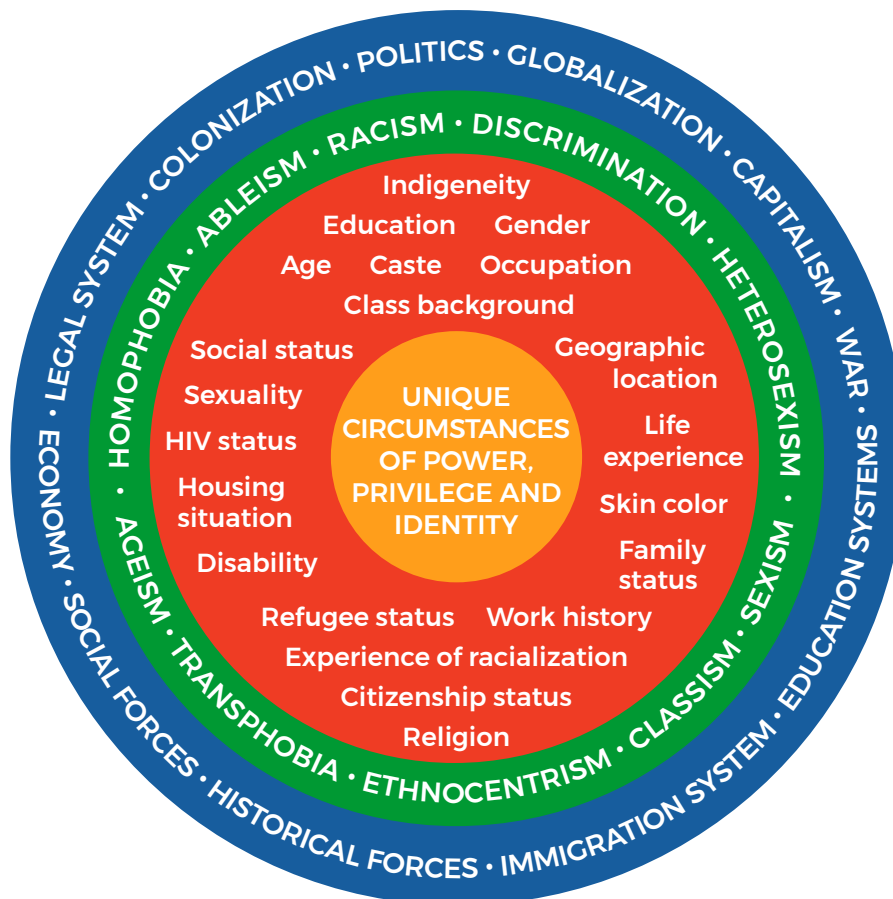
An intersectional perspective promotes an understanding of humans as shaped by the interaction of their social identities (e.g., gender, sexual orientation and expression, disability, race, ethnicity,

indigeneity, geography, religion, migration status) with systems and structures of power (e.g., laws, policies, governments, media, institutions). These processes create interdependent forms of privilege and oppression that are shaped by colonialism, imperialism, homophobia, transphobia, ableism, patriarchy, and other forms of hierarchy and power.

The intersectional approach encourages us to consider how multiple identities can lead to greater or varied kinds of discrimination, marginalization, or exclusion. When people are part of two or more marginalized groups, they experience discrimination associated with each of those identities, and the discrimination is sometimes compounded. Inequities are never the result of a single or distinct factor, they are the outcome of different identities, power relations, and experiences.¹

An intersectional approach requires you to understand how multiple identities and power structures amplify the exclusion of certain people and groups. You'll need to understand systems, power, and resource allocation when designing for a particular context. For example, who is excluded from access and use of devices, networks, and other infrastructure? An ecosystem approach helps to understand how these various elements come together, and it should be understood that this principle recommends this broad approach.

Intersectionality Displayed in a Wheel Diagram



(CRIA, 2009, p. 5)

¹ Hankivsky, O. (2014). Intersectionality 101. Publisher: Institute for Intersectionality Research & Policy, Simon Fraser University. https://www.researchgate.net/publication/279293665_Intersectionality_101

3.

DON'T LET DESIGNING FOR SCALE LEAD TO EXCLUSION

Scale is important if agencies want to reach as many people as possible with digital services. At the same time, if we're not careful about being inclusive, we might end up reaching only the easiest to reach and leaving behind those who need digital services the most. The *Design for Scale* principle could more clearly address these tradeoffs.

In some cases, it's more costly to reach people who are the most marginalized. For example, in some parts of the world men are much more likely than women to own a phone. So if an agency plans to design for scale and relies on mobile phones, it will have left out quite a lot of women in the process. Illiteracy, age, language, mobility, and disability are barriers that prevent some individuals from accessing technologies as well. For this reason, nuanced approaches are required. If we don't consider these issues when designing for scale, we might only benefit those who face the lowest barriers and continue to ignore the marginalized. The *Design With the User* principle helps us address some of these issues. However, this aspect could also be raised more clearly in the *Design for Scale* principle.

We need to make sure that our digital data collection, especially when it is automated, is making an intentional effort to reflect those who are off the beaten path. When data is not representative, we run the risk of making poor data-driven decisions and excluding those who are the most vulnerable.



4.

ENSURE THAT BEING DATA DRIVEN DOESN'T LEAVE PEOPLE OUT

Data is of enormous help when designing, planning for, and making decisions about digital tools and services. However, when certain individuals or groups are missing from data, we may overlook them in our design and decision-making processes, thereby leaving them out. The *Be Data Driven* principle could account for these challenges with inclusive data sets while being aware of biases in data models.

As agencies move toward approaches that use larger and larger data sets, and as we begin enabling artificial intelligence approaches for data analysis and predictive analytics, it becomes ever more important to ensure that those with little or no digital access are not overlooked in our big data sets because they are not producing data crumbs from their online actions and are thus missing from the data. For example, users who do not have mobile phones are missing from data sets generated by mobile networks. In the same way that we might make an extra effort during an in-person data collection exercise to walk down an alleyway to conduct interviews with those off the main road, we need to make sure that our digital data collection, especially when it is automated, is making an intentional effort to reflect those who are off the beaten path. When data is not representative, we run the risk of making poor data-driven decisions and excluding those who are the most vulnerable. This intentional effort may involve running additional, more traditional, analog data collection exercises to supplement analysis from potentially exclusive data sets.

Join the discussion and debate

This is our current thinking on how the Principles and the guidance around them should evolve to ensure we are not unintentionally leaving people behind in digital development. However, we know we have our own blind spots and may be missing crucial perspectives. Therefore, we want to hear from you.



Specifically, we're seeking answers to four questions:

1. **How can we develop and share strategies** to ensure we are leaving no one behind in digital development?
2. **What good practices can we bring** into our digital development work?
3. **How can we provide practitioners with the resources and incentives** to employ these practices?
4. **How can we expand on the existing Principles** and ensure they are inclusive?



WAYS TO ENGAGE

- **Listen:** Subscribe to our podcast, [Pulse on the Principles](#), or join one of our webinars.
- **Comment:** Join the conversation on our [Forum](#) or on Twitter at [@digiprinciples](#) using [#digitalprinciples](#).

These Principles are yours. We want them to evolve to be as useful as possible for you. This is an invitation to help us shape them.

Further resources and guidance

- Plan Finland. [ICT Enabled Development](#)
- Transforming Agency, Access and Power. [Toolkit for Inclusive Development](#)
- Hankivsky, O. [Intersectionality 101](#)
- Crenshaw, K., Gotanda, N., Peller, G., and Thomas, K. [Critical Race Theory](#)
- Institute for Development Studies. [Making All Voices Count](#)
- Daniels, J. [Why Now is the Time for Racial Literacy in Tech](#)
- Girma, H. [A brief disability accessibility guide](#)
- Whittaker, M., et al. [Disability, Bias, and AI](#)
- Aranda Jan, C. and Shanahan, M. [The Digital Divide at the Intersection of Gender and Disability](#)
- GSMA. [Assistive Tech Program: Advancing digital inclusion of persons with disabilities](#)
- UNICEF. [Exploring Critical Issues in the Ethical Involvement of Children with Disabilities in Evidence Generation and Use](#)
- The Centre for Internet & Society. [e-Accessibility Policy Handbook for Persons with Disabilities](#)
- Criado Perez, C. [Invisible Women](#)
- D'Ignazio C. and Klein, L. [Data Feminism](#)
- Martin, A. and Taylor, L. [Exclusion and inclusion in identification: Regulation, displacement and data justice](#)
- Our Data Bodies. [Community Power Tools for Reclaiming Data](#)
- McDonald, L.W. [Innovation practice must be inclusive, despite the challenges, or it risks harming more than it helps](#)