

DIGITAL DEVELOPMENT FOR LOW-HANGING FRUITS?

Exploring the root causes of digital exclusion in digital development



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10 REDUCED
INEQUALITIES



INEQUALITIES



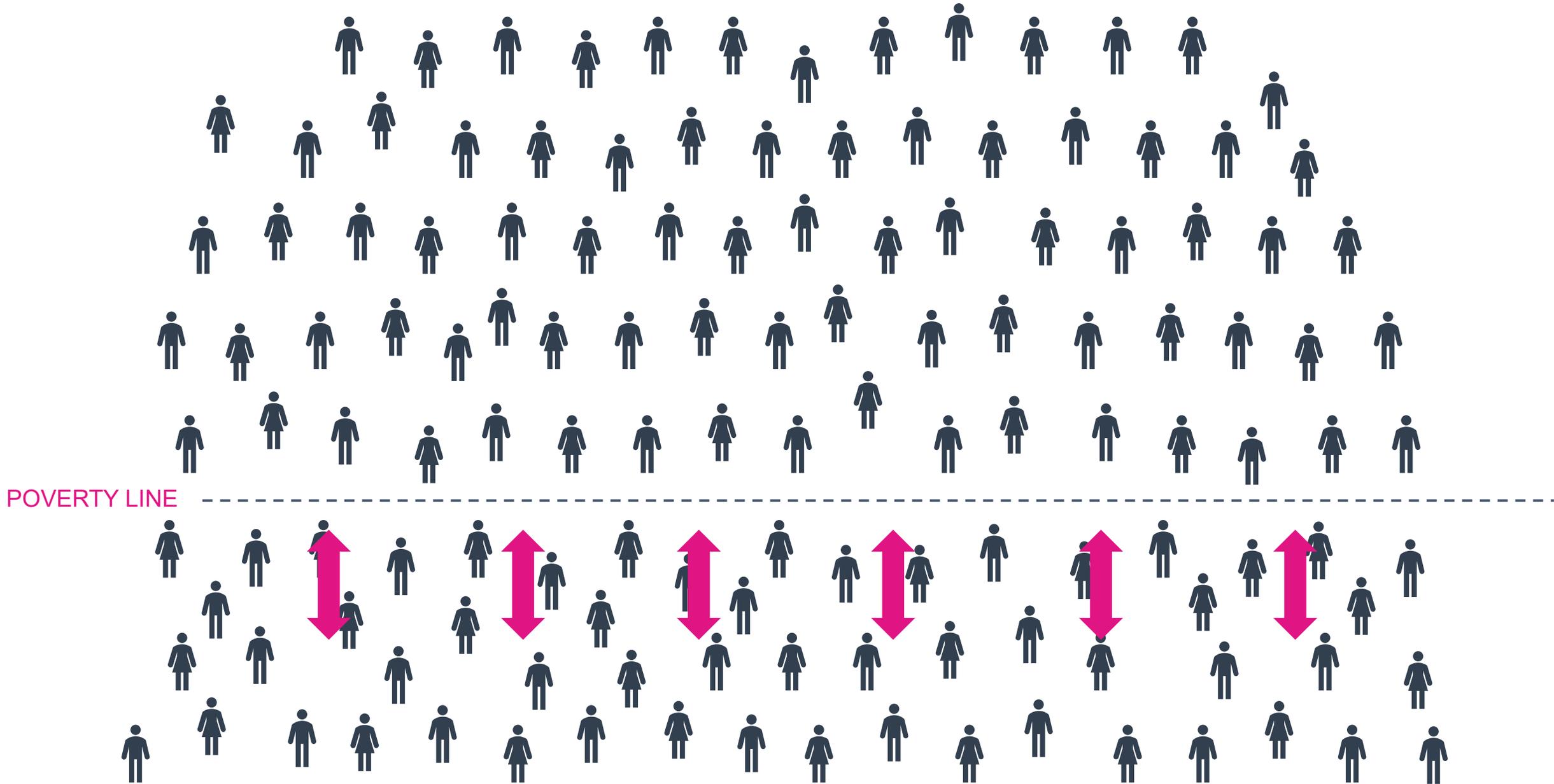
INEQUALITIES DRIVE THE CHALLENGES WE FACE



If we want to achieve any of the SDGs, we must **reduce inequalities**.

‘Development’ made inequalities worse

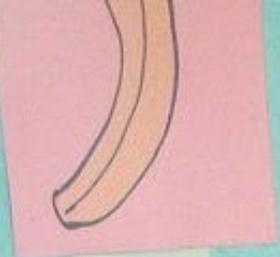
...by leaving behind the most marginalized groups





ولاية الجزائر
مؤسسة التثاقف والولاية للصحة
ورشات الجزائر

Campagne nationale de vaccination contre covid 19
حملة وطنية للتلقيح ضد covid 19



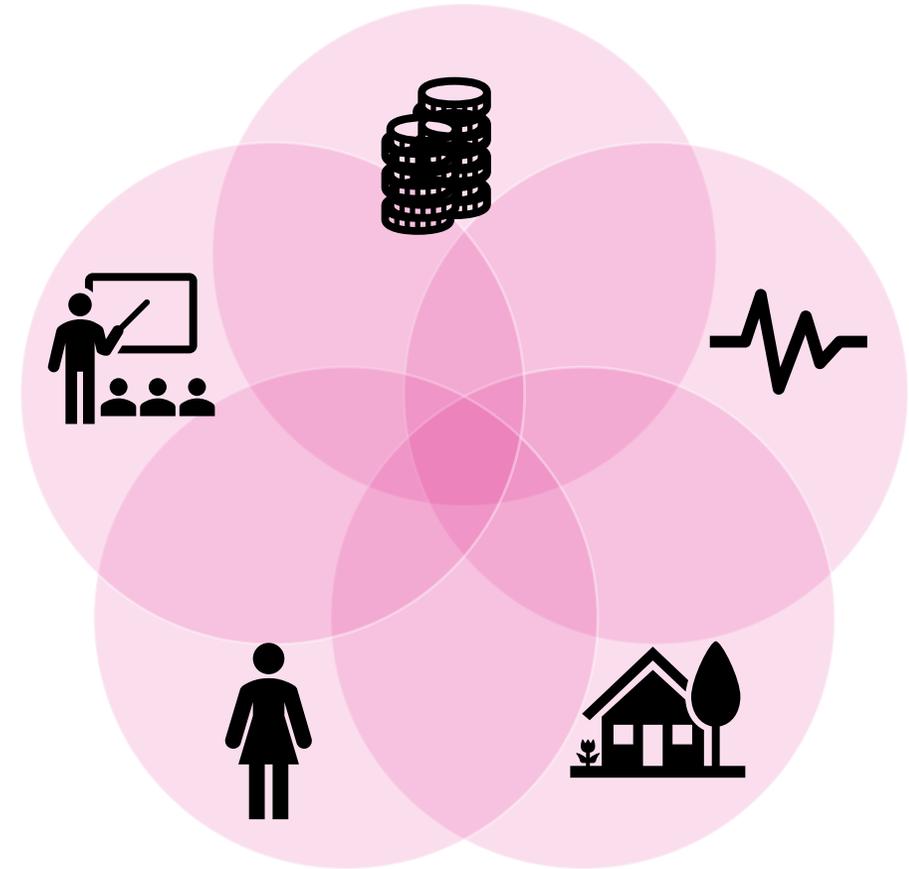
use this
water to
wash your
hands

Tara

A NEW MANTRA OF THE SDGs:

LEAVE NO-ONE BEHIND

Promoting development that prioritizes the most vulnerable and marginalized groups



LEAVE NO-ONE BEHIND IN DIGITAL DEVELOPMENT

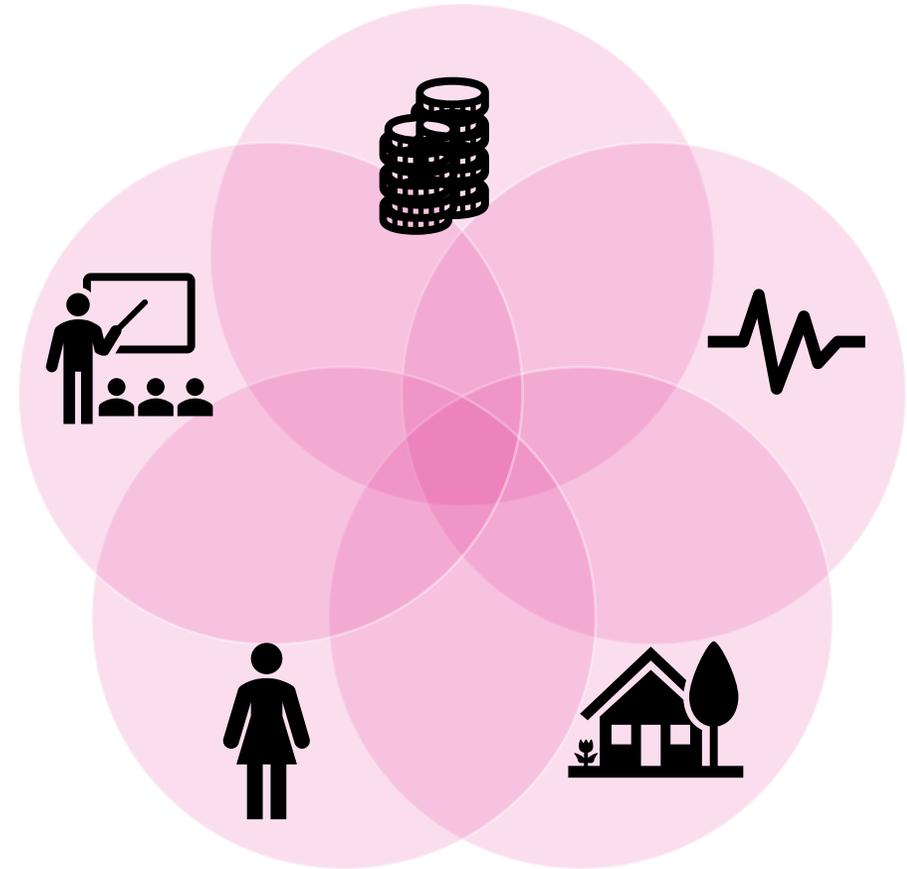
*ICT4D: Using technology
in pursuit of the SDGs*



Digital technologies
seen as an accelerator
of development

BUT

...vulnerable groups are
often the least likely to
benefit from ICT4D



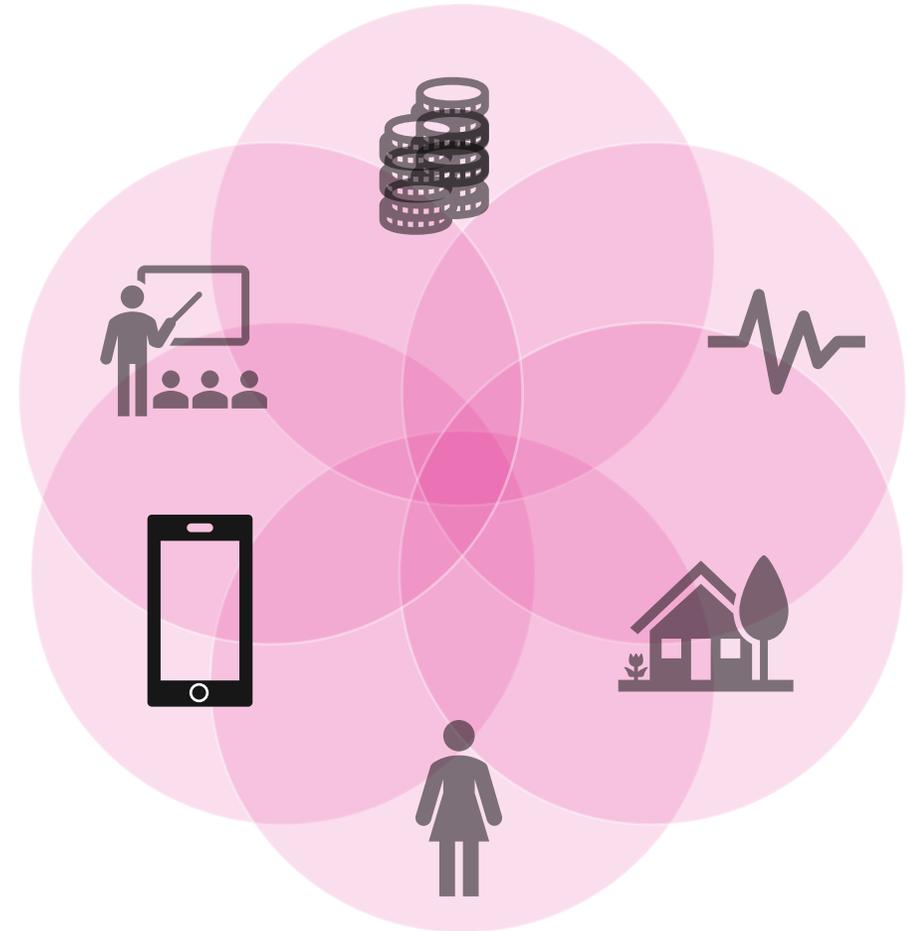
LEAVE NO-ONE BEHIND IN DIGITAL DEVELOPMENT

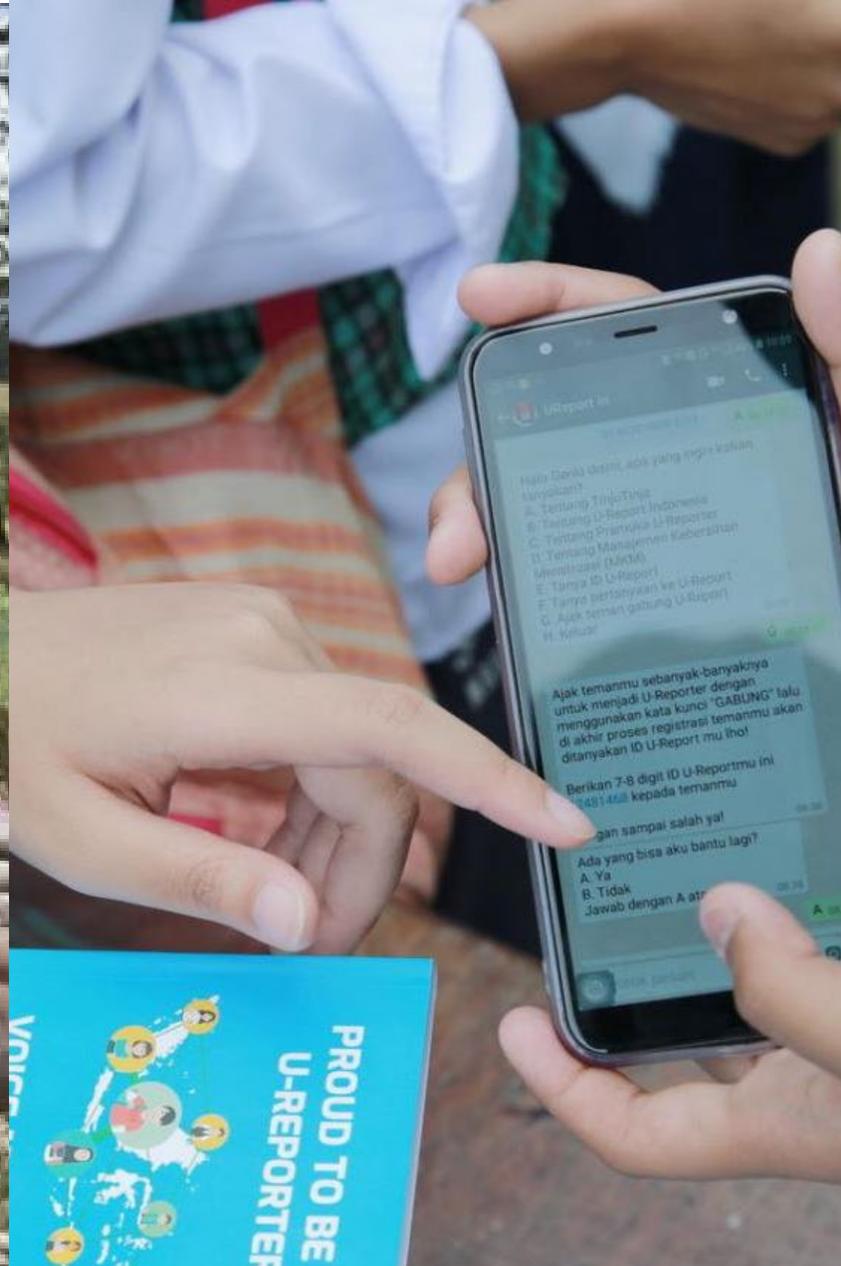
*ICT4D: Using technology
in pursuit of the SDGs*

Digital technologies
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BUT

...vulnerable groups are
often the least likely to
benefit from ICT4D





The most vulnerable groups are least likely to benefit from digital development



**OUR
GOAL:**

**Exploring the core drivers of digital exclusion in ICT4D
through the lens of design-reality gaps**



OUR GOAL:

**Exploring the core drivers of digital exclusion in ICT4D
through the lens of design-reality gaps**



What assumptions, perceptions, and priorities shape how digital development projects are conceived and designed?



41 semi-structured **expert interviews with digital development professionals (DDPs)**

Representing **UN** organizations (UN)
Non-profit entities (NP)
Public sector bodies (PuS)
and **private sector** organizations (PrS).

From Africa, Asia, Europe, and North America

Crossing organizational levels from CEO to field-staff

5 CORE DRIVERS OF EXCLUSION



**INCLUSION AS AN
AFTERTHOUGHT**



**TECH-FIRST
APPROACHES**



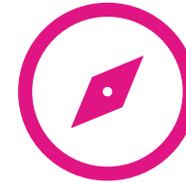
**PRIORITIZATION
OF NOVELTY**



**A FOCUS ON
SCALE**



**THEMATIC
SILOES**

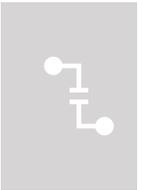


**NEED FOR
GUIDANCE AND
STRUCTURAL
APPROACHES**



“A NICE-TO-HAVE FEATURE” *INCLUSION AS AN AFTERTHOUGHT*

- Inclusion acknowledged but rarely prioritized



Inclusion probably hasn't been built in from the beginning. I don't know. I'm only starting to think about it now because you asked me.

(PrS[6])



“A NICE-TO-HAVE FEATURE” *INCLUSION AS AN AFTERTHOUGHT*

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- Inclusion acknowledged but rarely prioritized

“

If you're building opportunities in a way that women are not going to have access, we're going to widen gender inequalities in the physical world.

(UN[4])



“A NICE-TO-HAVE FEATURE” *INCLUSION AS AN AFTERTHOUGHT*

- Inclusion acknowledged but rarely prioritized
- Often treated as a secondary or optional design element



“

It is all about getting your services online, about channel shift. There was always a recognition that there were people out there where online services aren't going to work.

(PuS[5])



“A NICE-TO-HAVE FEATURE” *INCLUSION AS AN AFTERTHOUGHT*

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- 
- Inclusion acknowledged but rarely prioritized
 - Often treated as a secondary or optional design element
 - Tight timelines and donor pressure reduce attention to equity

“

We try to think about it whenever we can. You have tight deadlines, you have donors jumping on your back. But when you have time to do a decent design, you generally try to do this.

(NP[8])

“A NICE-TO-HAVE FEATURE” *INCLUSION AS AN AFTERTHOUGHT*

- Inclusion acknowledged but rarely prioritized
- Often treated as a secondary or optional design element
- Tight timelines and donor pressure reduce attention to equity
- Digital exclusion often seen as a technical issue

“

It's really up to the digital teams in general to keep it front and centre.

(PuS[3])

Within big organisations, ICT4D teams often sit in the IT department, so we are not directly involved in programming.

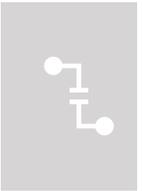
(NP[5])



“WE CONTINUE TO LEAD WITH THE TECHNOLOGY”

TECH-FIRST APPROACHES IN ICT4D

- Projects often start from a technology choice instead of user realities



It’s all about harnessing the power of technology.

(UN[4])

Sometimes our field teams get carried away with those things when planning interventions.

(NP[8])



“WE CONTINUE TO LEAD WITH THE TECHNOLOGY”

TECH-FIRST APPROACHES IN ICT4D



- Projects often start from a technology choice instead of user realities



- Tech-focused logic side-lines diverse beneficiary needs



In a lot of the actions, the beneficiaries are not taken into account as a specific component. It's very technology-focused.

(UN[3])



“WE CONTINUE TO LEAD WITH THE TECHNOLOGY”

TECH-FIRST APPROACHES IN ICT4D



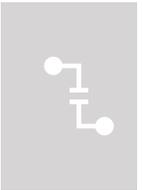
- Projects often start from a technology choice instead of user realities



- Tech-focused logic side-lines diverse beneficiary needs



- Disconnect between designers (often urban, male, elite) and marginalized communities, even where we have ‘representation’



We design a solution here in the capital. And we make assumptions about how it's going to be used in a rural community. And then you're go into the field and you realise – Oops!

(NP[11])



“WE CONTINUE TO LEAD WITH THE TECHNOLOGY”

TECH-FIRST APPROACHES IN ICT4D

- Projects often start from a technology choice instead of user realities
- Tech-focused logic side-lines diverse beneficiary needs
- Disconnect between designers (often urban, male, elite) and marginalized communities, even where we have ‘representation’
- Human-centred design frequently a ‘checkbox’



Often, these proposals would promise a human-centred design approach but, at the same time already announce that they will develop 10 apps. That defeats the purpose of a human-centred approach, of course!

(UN[6]).



“STOP USING FANCY SOLUTIONS AND GO BACK TO THE BASICS”

A ‘FETISH’ FOR NEW TECHNOLOGIES

- Strong enthusiasm for “new tech” drives design choices



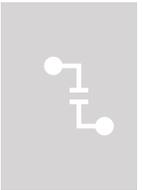
You see people getting really excited about new technology and wanting to use that technology to improve people's lives.



“STOP USING FANCY SOLUTIONS AND GO BACK TO THE BASICS”

A ‘FETISH’ FOR NEW TECHNOLOGIES

- Strong enthusiasm for “new tech” drives design choices
- Novelty often overrides suitability, access, and inclusion



This obsession with the latest technologies is very unhealthy and, in most cases, the people that are already being left behind are going to be left behind even further.

(NP[1])



“STOP USING FANCY SOLUTIONS AND GO BACK TO THE BASICS”

A ‘FETISH’ FOR NEW TECHNOLOGIES

- Strong enthusiasm for “new tech” drives design choices
- Novelty often overrides suitability, access, and inclusion
- Lack of awareness that simpler tools are frequently more inclusive and effective



Especially in a place like rural Uganda, the solutions that are working are those that are not cool. It's easier to mobilise people by using a drum than a phone.

(NP[11])



“STOP USING FANCY SOLUTIONS AND GO BACK TO THE BASICS”

A ‘FETISH’ FOR NEW TECHNOLOGIES

- Strong enthusiasm for “new tech” drives design choices
- Novelty often overrides suitability, access, and inclusion
- Lack of awareness that simpler tools are frequently more inclusive and effective
- Donor incentives favour technologically flashy projects



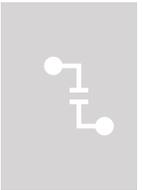
We want to continue working with SMS. But try and get funding for an SMS project. People say: that's old. Can't you use WhatsApp or Telegram? Organisations need the money and they know that they're leaving people behind, but it's the only thing that they can do.”
(UN[8])



“WE TEND TO ASK HOW MANY PEOPLE
BENEFIT, NOT WHO BENEFITS”

A PROBLEMATIC FOCUS ON SCALE

- Success measured by scale, rather than equity



“

**First and foremost we want
help as many people as
possible!**

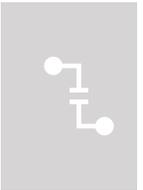
(NP[1])



“WE TEND TO ASK HOW MANY PEOPLE BENEFIT, NOT WHO BENEFITS”

A PROBLEMATIC FOCUS ON SCALE

- Success measured by scale, rather than equity
- Assumption that broad adoption means ‘inclusivity’



A lot of people actually use smartphones in Zimbabwe and there is, I would say, rather high digital literacy rates in comparison to other countries.

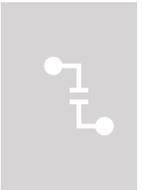
(NP[6])



“WE TEND TO ASK HOW MANY PEOPLE BENEFIT, NOT WHO BENEFITS”

A PROBLEMATIC FOCUS ON SCALE

- Success measured by scale, rather than equity
- Assumption that broad adoption means ‘inclusivity’



If you have 7 in 10 people with mobile phones in our country, the challenge is: How do we design solutions for the 7 in 10. But also, how do we not leave the 3 in 10 behind?

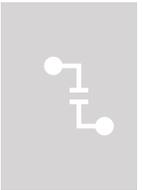
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“WE TEND TO ASK HOW MANY PEOPLE BENEFIT, NOT WHO BENEFITS”

A PROBLEMATIC FOCUS ON SCALE

- Success measured by scale, rather than equity
- Assumption that broad adoption means ‘inclusivity’
- Minority or marginalized groups often invisible in metrics.



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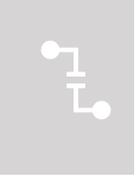
In terms of inclusion, I would think that it would probably follow other demographic trends but I don't know. I should look into that.

(PuS[3])



“WE TEND TO ASK HOW MANY PEOPLE BENEFIT, NOT WHO BENEFITS”

A PROBLEMATIC FOCUS ON SCALE

- 
- 
- 
- 
- Success measured by scale, rather than equity
 - Assumption that broad adoption means ‘inclusivity’
 - Minority or marginalized groups often invisible in metrics.
 - Measuring equity is costly and complex



A small NGO cannot answer these questions for themselves.

(UN[2])

There's no point in trying to do good in the world if we bankrupt ourselves! Because we then can't do any good.

(PrS[2])



“WE TEND TO ASK HOW MANY PEOPLE BENEFIT, NOT WHO BENEFITS”

A PROBLEMATIC FOCUS ON SCALE

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- 
- 
- 
- Success measured by scale, rather than equity
 - Assumption that broad adoption means ‘inclusivity’
 - Minority or marginalized groups often invisible in metrics.
 - Measuring equity is costly and complex
 - Targets tend to push mass adoption, rather than differentiated inclusion strategies

“

The aim is to increase the percentage of the population in Uganda using digital financing. Did we discuss about inclusion? The target was to have more and more people registered to mobile money.

(UN[2])



“MY AWARENESS IS PROBABLY SELECTIVE”

THINKING IN SILOES

- Practitioners’ awareness shaped by their thematic niche



“

I never really thought about digital poverty. I'd always thought about digital exclusion in terms of: Could people see the screen? Could they hear?

(PrS[6])



“MY AWARENESS IS PROBABLY SELECTIVE”

THINKING IN SILOES

- Practitioners’ awareness shaped by their thematic niche
- Even ‘inclusion experts’ often lack cross-topic awareness



Solutions that are conceived by men will not fit the needs of women.

I’m not even speaking about people with disabilities because – honestly – it’s very hard to conceive something that will take this into account.

(NP[14])



“MY AWARENESS IS PROBABLY SELECTIVE”

THINKING IN SILOES

- Practitioners’ awareness shaped by their thematic niche
- Even ‘inclusion experts’ often lack cross-topic awareness
- Intersectionality routinely overlooked



When we developed a health app for girls, we've done that with a real gender lens, but we forgot the disability lens! It happens. It's just so intersectional.

We spent so much time making a gender-inclusive product that we forgot about girls with disabilities.

(UN[5])



**INCLUSION AS AN
AFTERTHOUGHT**



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**THEMATIC
SILOES**

5 CORE DRIVERS OF EXCLUSION



**With every new
technology, we repeat the
old mistakes. The ‘haves’
profit and the ‘have-nots’
are being left behind.**

(NP[3])



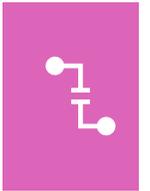
**NEED FOR
GUIDANCE
AND
STRUCTURAL
APPROACHES**



We need some framework that ensures that the relevant questions are asked, the relevant things are taken into account.

(NP[4])

- Strong demand for coherent frameworks beyond



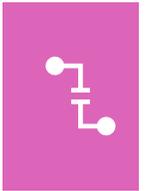
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[The Principles of Digital Development] are quite vague: Design with the user. Anyone working in this space will say: **Duh, of course!**

(NP[3])

- Strong demand for coherent frameworks beyond
- Existing principles (e.g. PDDs) too vague, superficial, or unknown.



**NEED FOR
GUIDANCE
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If I had not taken the initiative, maybe someone else would have, but maybe not.

(PrS[7])

- Strong demand for coherent frameworks beyond
- Existing principles (e.g. PDDs) too vague, superficial, or unknown.
- Implementation often depends on personal initiative.



**NEED FOR
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Our strategy was primarily based on what our regional officers observed when they went around to visit under-resourced communities.

(PuS[4])

- Strong demand for coherent frameworks beyond
- Existing principles (e.g. PDDs) too vague, superficial, or unknown.
- Implementation often depends personal initiative.
- Reliance on anecdotal insights instead of systematic assessment.

CONCLUSIONS

- A focus on design-reality gaps shows that exclusion is **not merely rooted in the digital capital and capabilities of citizens** or in the technology itself
- It is shaped by **choices, assumptions, and priorities of those who design and implement** digital projects
- In addition to addressing inequalities on the user-side, **we must address the supply-side**
- The core drivers we identified show the **need for a common framework and structural guidance**

CONCLUSIONS

- **Future research should address this need for guidance in order to mainstream ‘leave no-one behind’ in digital development**



↪ **Follow-up research:**

Rothe et al. (2024):

Digital Inequalities & the Post-2030 Development Goals:

‘Leaving No-One Behind’ in the Digital Context of the Next SDGs



THANK YOU!

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