

Algorithms & Empathy: Leveraging technology while maintaining human connection in anti-poverty programming

Summary

Economic inclusion and graduation programmes combine material support, skills, financial services and coaching to help people living in extreme poverty build sustainable livelihoods. As these programmes expand, digital technologies and artificial intelligence (AI) offer important opportunities to improve consistency, reach and cost-effectiveness. At the same time, coaching and the relationship between frontline workers and participants often provide the trust, confidence and motivation that enable programme components to work together effectively (Arévalo-Sánchez et al., 2024; Sumanthiran and Roelen, 2023).

The central policy question is therefore not whether to use technology, but where it adds value and where human interaction remains essential. Technology should support, rather than replace, the relational elements of anti-poverty programming. This policy brief sets out six practical considerations for policymakers, funders and implementers seeking to find a purposeful balance between “touch” and technology: define what technology is for; understand coaching before digitising it; let participant preferences shape delivery; build digital agency rather than access alone; manage technological risks and institutional constraints; and ensure that digitisation does not flatten the complexity of people’s lives.

Why human connection matters in economic inclusion

Multi-component anti-poverty interventions are now widespread across low- and middle-income countries. Often described as economic inclusion or graduation programmes, they typically combine consumption support, productive assets, savings or credit, skills training, market links and coaching to create a pathway out of poverty (Arévalo-Sánchez et al., 2024).

One factor consistently shaping the success of these programmes is the relationship between frontline workers and the people they support, often through their coaching component (BRAC Ultra-Poor Graduation Initiative, 2026). Coaching refers to regular touchpoints between programme participants and frontline workers during which participants receive advice, support and feedback to offer accompaniment, consolidate training messages, and build confidence (Sumanthiran and Roelen, 2023). Trust, empathy, and human connection often determine whether interventions truly change lives, with coaching having been dubbed the ‘X-factor’ (Roelen and Devereux, 2019). Yet, building and maintaining these relationships is resource-intensive and difficult to expand to large groups of participants.



Meanwhile, rapid advances in mobile technology and AI are opening new possibilities to offer cost-effective support at scale. Digital tools can deliver tailored advice, reach more people, and reduce costs (Rincón-Pérez, 2026). Yet they raise important questions: What might be lost when human interaction is replaced or reduced? And when is face-to-face engagement essential?

This brief draws on a panel conversation, Algorithms & Empathy, held as a side event during the 2026 Skoll World Forum in Oxford. Hosted by the Centre for the Study of Global Development (CSGD) at The Open University, the panel brought together Keetie Roelen (CSGD, The Open University), Stephanie Brockerhoff (BRAC Ultra-Poor Graduation Initiative), Janet Heisey (Partnership for Economic Inclusion, World Bank) and Wendy Chamberlin (Trickle Up), alongside 25 participants from international NGOs, global policy and research institutions, and consulting and design organisations. The discussion combined evidence with practical experience of implementing economic inclusion and graduation programmes across low- and middle-income countries.

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The power of human connection and technology

First, there is widespread acknowledgement that technology should support, not replace, human interaction – also referred to as ‘touch’. Hence, the core challenge is not *algorithms versus empathy*, but how to design systems in which algorithms serve empathy, and where technology strengthens rather than undermines human connection. Economic inclusion and graduation programmes are not purely technical interventions; indeed, their effectiveness often hinges on relationships between participants and frontline workers.

Second, technology is attractive for its promise of scale, consistency, and cost efficiency, particularly in government-led programmes. It also offers opportunity for programme participants, and closing the digital divide. When well-designed and combined with human support, technology can be empowering. It can help participants build confidence as they learn new digital skill and feel included in a world that is becoming increasingly digital (Rincón-Pérez, 2026).

“The aim should be to use technology to free up human time for the moments where listening, judgement, trust and encouragement matter most.”



Striking the “touch and technology” balance

At the same time, there is concern that scaling through digital systems risks stripping out the very elements of human connection – listening, trust-building, motivation – that make economic programmes effective.

Considerations of pros and cons extend to the use of technology in other components of economic inclusion and graduation programming. Some of the most crucial uses might be hidden from view, such as digital tools in support of Management Information Systems (MIS), interoperability across programmes, and offline data capture. Concerns may relate less to loss of human connection, but pertain more to issues of data quality and privacy. These need to be weighed up against programme efficiency gains that result from the adoption of new technologies, which can be substantial (Leite et al, 2025).

In sum, economic inclusion and graduation programmes are at a critical juncture: decisions made now about digital tools, data, and scale will shape whether these programmes remain genuinely human-centred as they expand. The search for scale and enthusiasm for new technology that facilitate implementation at scale can risk tipping the balance in favour of technology without due consideration of might be lost. “Fancy” technology such as AI or chatbots can bring great value, but only if grounded in programme realities like limited connectivity, device access, and workforce capacity. Technology-for-technology’s-sake carries risk; instead, ‘technology-for-purpose’ reduces friction, supports learning and adaptation, and frees up human time for more relational and complex cases.

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Considerations for the future

1. Be clear about the type and purpose of technology use

The use of technology in economic inclusion and graduation programmes takes many forms and serves an array of purposes across the programme cycle. Some of the most effective uses of technology happen ‘in the background’, including management and harmonisation of participants’ data. The direct implications of these forms of technology for the ‘touch and technology’ balance may be limited.



By contrast, the introduction of WhatsApp or chatbots to share messages or offer advice to programme participants explicitly seek to alter the role of human interaction in programme implementation. Meaningful considerations about how to balance human interaction with technology require clear stipulation the type of technology, and its purpose within the programme.

2. Gain a shared and more granular understanding of coaching

Coaching is central to the operationalisation of human connection in economic inclusion and graduation programme, and also referred to as the ‘X-factor’ or ‘secret sauce’ of such programmes. Yet, there is a lack of shared understanding of what coaching actually consists of. Coaches are sometimes described as mentors or role models, others as trusted community members, accountability partners, or conduits to services. While evidence shows that coaching works, it remains something of a ‘black box’: trust, regularity, belief, behavioural nudges, and accompaniment all appear to matter, but there is no consensus on how they matter and for whom.

Without a shared understanding of what coaching is and should do, attempts to automate or streamline coaching can risk eroding the intangible mechanisms that make it so powerful. Leveraging the power and benefits of technology requires replacing those elements of coaching that may be less contingent on face-to-face contact. This makes a shared mental model of coaching, its function, and its constituents vital when trying to standardise, digitise, or scale coaching.

3. Let participant preferences be a driving factor

There is wide agreement that participant voice in decisions about technology is vital. However, meaningful consultation of communities and prospective participants before digital tools or AI systems are introduced appears limited. In addition, one can question whether ‘consent’ is truly informed when programme participation is contingent on digital compliance. In an ideal situation, choice – between digital and in-person options – should rest with the participant, and they should be allowed to revert to in-person support if a technology-driven approach does not work for them.

Technology is empowering when it strengthens agency and self-perception, but disempowering when it feels extractive, surveillant, or imposed. Democratisation of data can play a role in tipping the scale on this by ensuring that information generated through programmes is not only collected for accountability or optimisation, but shared back with participants in ways that empower them and build their understanding of their own progress and position.



4. Support digital agency, not just digital access

While access to devices and connectivity remains an issue, we need to move from digital access to digital agency (Hendricks, 2025). This includes who controls technology, how it is used, and whether it empowers or constrains participants. Gender norms, household dynamics, collective decision-making, and safety concerns are among the factors that shape technology use in practice.

For example, women's phone use may be monitored by family members, pastoralists may distrust government apps, coaches might be unable to carry digital devices due to security concerns, or communities may prefer paper-based tools for inclusivity reasons. Digital tools must align with how people actually navigate their everyday lives, rather than assuming individualised, efficiency-oriented behaviours.

5. Be aware of the challenges and risks that technology can bring

Bringing programmes to scale is both essential and difficult. For instance, governments often lack the resources, incentives, or skilled workforce to deliver high-quality coaching at scale, adding to the appeal of technology. However, there are risks related to proprietary platforms, vendor lock-in, and systems that do not align with government digital infrastructure. Open-source digital public goods can be a promising but challenging pathway; they are slow to develop, costly to fix if wrong, and require significant capacity building. Digital solutions must start from where clients already are, rather than imposing idealised systems that are unlikely to be adopted or sustained.

6. Avoid technology flattening complexity

Digitisation and use of technology risks flattening complexity when seeking to monitor, evaluate and learn from programme implementation. While technology can improve consistency, reporting, and organisational learning, it can also crowd out qualitative insights and the “messiness” of real lives. Structured data often reflects what programmes find easy to measure, not what participants value most—such as dignity, confidence, social cohesion, or wellbeing. Technology should help programmes listen better, not extract data more efficiently. Caution is warranted against algorithmic systems that reinforce external assumptions rather than learning from indigenous knowledge and local realities.

Technology creates new opportunities to capture, share, and reflect on these broader outcomes – if intentionally designed to do so. Future innovations should make visible the complexity of economic inclusion pathways, and the relational and social mechanisms that make programmes endure after external support ends.



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Credits

This brief was written by Keetie Roelen and Caro Holland-Szyp, Centre for the Study of Global Development (CSGD), The Open University with input from Janet Heisey (Partnership for Economic Inclusion, World Bank) and Tatiana Rincón-Pérez (Fundación Capital). It is based on the Algorithms & Empathy panel conversation held during the 2026 Skoll World Forum in Oxford and reflects the collective expertise and experience shared by panellists and participants.

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