

# Mobile Participation



# Mobile Participation:

## *Access, Interaction and Practices*

Edited by

Caroline Wamala-Larsson,  
Christelle Scharff  
and Johan Hellström

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Mobile Participation: Access, Interaction and Practices

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The chapters that appear in this book were presented at the 2014 conference and through different sectors such as livelihood, education, health as well as governance, lift up the concept of mobile participation highlighting the extent to which mobile technologies include the opinions and voices of the intended beneficiaries. We would like to thank the authors of this book for revising their contributions of M4D 2014 conference and expanding on their original work to produce deeper reflections and grounded research in mobile participation. We also extend gratitude to the initial reviewers of the papers submitted to the M4D 2014 conference.

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Caroline, Christelle and Johan





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# CHAPTER ONE

## MOBILE PARTICIPATION: AN INTRODUCTION

CAROLINE WAMALA-LARSSON,<sup>1</sup>  
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AND CHRISTELLE SCHARFF<sup>3</sup>

### **Mobiles In and For Development**

Mobile technologies, especially basic mobile phones, have changed how people interact and communicate in a very short period of time. Mobile cellular subscriptions have increased exponentially in developing regions, which account for 78 per cent of the world's population (ITU, 2014) in the last ten years. Individuals, governments, aid agencies, companies, start-ups, and NGOs hail the potential of these technologies, especially with regards to development as they facilitate innovative uses in a wide range of information, communication, and transactional processes, and there have been unprecedented results in sectors including health, education, governance, agriculture and finance. Mobile technologies and services are said to strengthen democratic processes, expose corruption, improve the transferring of money to remote areas, enhance education practices, improve health service delivery and aid in communicating natural disasters, thus, they have been recognised as having an overwhelming impact on human development (UNDP, 2012; Donner, 2008; Katz, 2008; Ling and Donner, 2009).

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The use of mobile technologies for development purposes has also garnered significant academic attention. Theoretical readings of the area contribute to the development of what is fast becoming a recognised research stream within the wider Information and Communications Technologies for Development (ICT4D) field and have streamlined “e” services to acquiring the “m” preface (Heeks, 2009). Mobile communications for development (M4D) is interdisciplinary where social sciences and technical disciplines cohabitate, which is made possible through the use of mobile devices, services and applications, and has, through its mobile character, helped address a number of infrastructural challenges in some of the remotest areas in the global south. The mobile phone has been noted as meeting the needs of individuals, precisely, wherever they are, geographically, economically, culturally and socially. It has, more than any other new technology, gained currency as a technology that can contribute to addressing inequalities and enabling transformative change (Niang et al., 2014; Kumar and Svensson, 2012). This pervasiveness is what makes mobile phones and other mobile technologies appealing to development.

The goal of M4D research is to understand the use of mobile technologies and related services, and how they directly or indirectly address socioeconomic challenges. As an area of study, interest in what the technologies subsumed under the mobile category can contribute to social progression and transformation has grown exponentially. In the last decade, research specifically dedicated to the development potential of mobile technologies has garnered significant attention (Niang et al., 2014; Petterson, 2008; Kumar and Svensson, 2012; Svensson and Wicander, 2010).

There is a growing number of conference series and open access papers devoted to M4D research, including the M4D conference series initiated by Karlstad University in Sweden in collaboration with development partners and education institutions. The HumanIT Research Centre at Karlstad University is the driving force behind the M4D biennial conference series. The M4D conference has taken place four times: in Karlstad, Sweden in 2008; Kampala, Uganda in 2010; New Delhi, India in 2012; and Dakar, Senegal in 2014. The conference series not only identified a need for academics in the area to meet and confer, but also for practitioners to engage in dialogues across the academic-practitioner divide. Hence contributions to the M4D conference were from the beginning multi-perspective and interdisciplinary.

The idea for this book stems from the contributions on mobile technologies for development from the fourth M4D conference that took

place in Senegal in 2014 where eighty papers from thirty-eight different countries were submitted. Two keynotes, twenty-eight papers, three panels, three workshops and eleven posters were accepted, presented and included in the proceedings (Niang et al., 2014). The contributions included the use of mobile phones by HIV patients and illiterate people in Ghana and Senegal, respectively, the reasons for mobile users to engage in governance initiatives in water management in Uganda, the importance of data privacy in M4D research and practice, the barriers to the use of mobile money in Kenya, the disconnect between mobile application production and local social interests in Argentina, and extending computer programming on mobile devices in South Africa.

The growth in use of mobile technologies has also given rise to a range of assumptions in development. Some of these are techno-deterministic in that mobile technologies are discussed as the answer to development (See, for example, Said Sife, Kiondo and Lyimo-Macha, 2010). Mobile technologies are also being linked to increased social participation in matters of improved health service delivery and livelihoods. The participatory character of mobile technologies in development has not received as much scholarly attention as participation has in mainstream development. In main stream development, participation has been dissected and scrutinised by a number of scholars who seek to understand its meaning and contribution to development. Before we delve into the discussion of participation through mobile technologies, we need to look at what it is about mobile technologies that makes them potential tools for development.

## **Mobiles, Participation and Development**

Participation is part of the development jargon suggesting that those at the receiving end of development have the possibility to partake in the processes that will benefit them. Mobile technology is being hailed as enhancing participation in development but what participation means, the form it takes and the purpose it fulfils has eluded clarification over time. Participation is often taken for granted in the M4D literature and used in its broadest sense. Practitioners and academics tend to draw hasty conclusions and equate mobile subscriptions and penetration data with real access, use, interaction and participation. A high number of distributed SIM-cards do not mean that more people are participating in political and non-political processes, issues that affect them and development at large. A deeper analysis and understanding of the concept of participation through mobile technology is needed.

What is it exactly about mobile technologies that allows for participation and development? Jon Agar's (2003; 2013) *Constant Touch: A Global History of the Mobile Phone* directs us to the specifics of this question. Agar states that the ability to be connected and in touch with social networks is enabled and encouraged by the mobile phone's status as a communication tool. Transmitting voice and visual and written data through the mobile phone alludes to this constant touch phenomenon. Recent developments have brought about a variety of additional services to mobile telephony, such as multimedia messaging, email, text messaging, video conferencing, paying a bill, taking a photograph, listening to the radio, watching television/movies and playing games, which have enhanced the mobile phone's capabilities. Referred to as smart phones, these Internet-enabled devices allow people to be in constant touch because they can be carried around and used wherever they go.

The appeal of mobile technologies for development processes is based on their capability to produce media content and the fact that they are portable. Hence the mobile aspect of mobile technologies refers not only to their physical portability but also to their status as mediums that carry, transfer, receive and store information. A specific example may help put this into perspective. A farmer in Uganda acquired knowledge of a specific brand of chickens being farmed in Zambia through her husband. He communicated to his wife through the mobile phone that it may be beneficial to try the said breed of chickens. The farmer acquired the same poultry, implemented the same farming methods and saw a surge in income, which led to progress in other areas of the farmer's life such as improved access to health services and better schools for their children (Wamala, 2010). This micro example can be expanded to a social group or region. The collective use of mobile technology towards solving social problems and closing gaps can lead to development because information can be accessed, shared, stored and applied to make informed decisions. This very opportunity – of sharing, storing, accessing and applying information acquired through mobile technologies – is also the goal of participation in development. To partake in processes that will transform people's lives requires access to information and being able to communicate introspections and miscomprehensions. Mobile technologies can enable this dialogue.

Mobile infrastructures, such as mobile base stations, electricity and transmission networks, are crucial for the proper functioning of mobile devices. In a number of developing regions, the instability of these supportive technologies, or the fact that they are still being developed or



built, does threaten the prospect of always being connected, of being in constant touch with the world.

In this book we want to discuss and elaborate on the concept of participation through mobile technologies further. The core question that this book attempts to answer is: In what ways do mobile technologies enable, enhance, and perhaps even effect civic participation in everyday life? The aim of this book is to explore the notion of participation enabled through mobile technologies as it is a concept that is employed freely in M4D with little critical reflection. We selected contributions from the fourth M4D conference from different disciplines to show the richness of the perspective. Before exploring the notion of participation through mobile technologies, we labour on the advent of participation in development practice and discourse. We then steer the discussion towards the technology-based form of participation, a process this book labels as mobile participation.

## **Epistemologies of Participation in Development**

During the 1980s, participation was indoctrinated into development discourse and practice to remedy the ills facing the development industry, and, more importantly, the global south. Well into the 1990s, participation had been mainstreamed into development processes, and a number of source books on the doctrine of participation were in circulation (for example, the *World Bank Participation Source Book*, 1996). The World Bank defines participation as “a process through which stakeholders influence and share control over development initiatives and the decisions and resources that affect them” (Pateman, 2012). The process of participation is a political move, one that encourages power sharing between stakeholders and development initiators. It is this interaction and, in particular, the uneven distribution of power that has turned the concept of participatory development into a hollow orthodoxy.

In 1969, Shelly Arnstein, an urban development specialist, used the metaphor of a ladder to illustrate citizen decision making and participation. The eight-step ladder gives a detailed typology of participation (See figure 1) and went on to become an important benchmark against which the level of engagement of citizenry in political processes was measured. It also aided a disaggregated analysis of the causal links between different degrees of participation and their outcome. The same ladder also informs policy and development practice and discourse, and aids in critiquing the design, implementation and practices of participation (Collins and Ison, 2009: 361).

The ladder's appeal is the simplicity with which it illustrates power and its movement within and among the rungs. The same ladder metaphor also yields a graded upward movement towards a citizenry acquiring power. Arnstein noted that "participation is a categorical term for power" (1969:216) and the idea behind this figuration is that the degree of engagement improves with each upward rung, challenging power and its institutions on its journey.

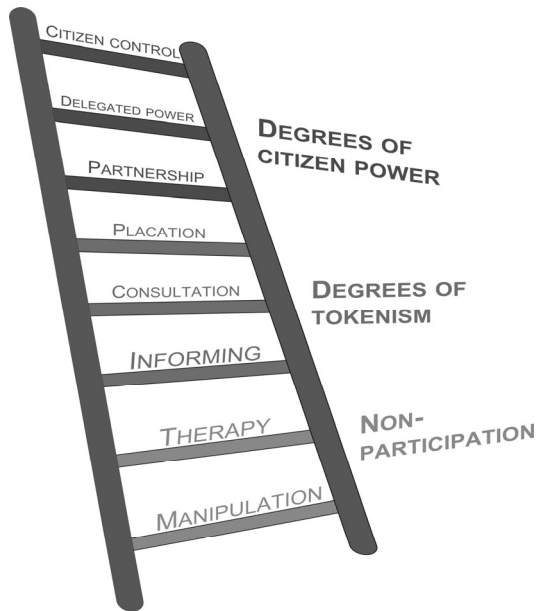


Figure 1: Eight rungs on a ladder of citizen participation (see Arnstein, 1969).

However, this figuration soon reveals its shortcomings when it is applied to the messiness of reality. Participation and its legacy are framed in terms of power (Collins and Ison, 2006), yet the "social power dimensions of participatory processes [can] potentially frustrate attempts to promote genuinely inclusive decision making processes" (Few et al., 2007:50). The ladder metaphor conceptualises participation as a power struggle between citizens, or the governed, and their duty bearers, or those in leadership positions. Yet one might ask whether citizen control is the ultimate and successful application of participation (Hayward et al., 2004). One might also ask if the linear relationship between non-participation and citizen control, as depicted by the ladder, requires a similar approach by

policy addressing this imbalance. Criticisms abound, but the general tenet is that participation framed within the notion of power is limited particularly as the rungs in their orderly acclivity fail to encompass the evolving and diverse levels of commitment on the part of the citizenry. The ladder requires contextual and situational applications because wherever its typology is placed, it will confront and be confronted by different sets of standards. Power is, as Arnstein rightly notes, at the heart of participation, but reassigning power does not qualify the practice of participation.

This volume provides empirical evidence and further analyses towards the limitations of participation in development. When mobile technologies are employed in the business of doing participation, the ladder metaphor becomes useful in not only exposing the restrictions but also categorising the degrees of participation. The middle rungs of the ladder, collectively labelled as token participation, point to limited participation. Well-known examples such as the use of text messaging to inform farmer groups about some agricultural activity are extremely popular. While informing target groups or beneficiaries can help address a special need, the following questions arise: Does informing citizenry constitute participation, or does collecting opinions from key groups in communities serve as a participatory approach, even when the end decision lies with those implementing development (Arnstein, 1969; Pateman, 1970)? Bishop and Davis maintain that “those contending understandings of participation make participation a political label rather than a settled practice” (2002:14). This means that as long as farmers are getting information on current crop and animal diseases, or an impending climate catastrophe, they have been informed and this is participation. Never mind that the information supplied fails to be proactive in its instructions on how to deal with or handle these occurrences. Reference to settled practice suggests that this is an on-going process rather than a one-off activity. In other words, participation is or should be enduring and must be mutable to events as they happen.

Andrea Cornwall (2006) similarly suggests the situational approach to participation. She refers to participation as spatial, contextual and open to renewal. For example, the upper rungs in the ladder point towards partnership between the target groups and the planners as a move or practice towards delegated power. But is this ever the case? One sector through which mobile technologies is increasingly accommodated is the governance space. As suggested by the ladder metaphor, encouraging citizen participation through partnerships and delegated power can lead to more transparent and accountable leaders. For example, mobile

technologies have been used towards more transparency and accountability in elections.

However, Hellström and Karefelt (2012) provide empirical evidence to the contrary, drawing on the Uganda general elections of 2011 where a number of technical platforms such as SMS were used by citizens to report on and monitor the elections.

Hellström and Karefelt found that the use of SMS was challenged by a number of structures. Cost was a major obstacle. Paying for sending text messages did not appeal to most users, especially as most partakers wondered if their participation would lead to any action. Another obstacle was fear. Many users harboured suspicions of being watched should they report any voting irregularities. In this sense, a number of organisations, government institutions included, established a partnership with voting citizens to report on any abnormalities with the view of ensuring that the elections would be *free and fair* (a popular slogan) and transparent. They believed that by delegating the power to hold the entire system to account to the voters themselves, voter participation would be realised.

Some of the primary reasons this initiative did not achieve the desired outcome are in line with Cornwall's analysis that, even though spaces can be created to effect participation, the same spaces can also be permeated by counter-participatory methods, essentially politicising and reducing participation to a mere buzzword (Cornwall, 2006; Cornwall and Brock, 2006). If citizens are afraid to partake in democracy, even when the opportunity has been offered to them, or structural hindrances such as communication costs interfere with the doing of mobile participation, then the ultimate rung of citizen control on Arnstein's ladder remains elusive. To that end, degrees of citizen power are made more visible because even if power is given away, someone has to have it to give, which still points towards an uneven distribution of power.

The former example illustrating token participation, and the election example extrapolating political participation through mobile technologies, can both be relegated to the bottom of the ladder. The two rungs at the bottom of the ladder are classified as non-participation. Earlier we stated that supportive technologies must be in place if mobiles for development are to have a transformative effect. Electricity, transmission and other signals for the most part segregate societies. Areas that have a constant supply of these technical services ensure Agar's constant touch phenomenon (2003); areas that lack or have limited access to the same services are easy to manipulate when it comes to participation. On paper, institutions can argue that groups of people have been informed and provide evidence to support these claims, even though the recipients of the

information are not in a position to engage in dialogue. Recipients may not have the call credit required, or they may be unable to charge their mobile device for several days because a storm destroyed the power lines and repairs are yet to be made. As suggested by Cornwall and Brock (2005), conceptualising participation as time and space-bound allows the application of this approach to be tailored to specific situations, inviting dynamic and meaningful commitment.

Participation is the panacea for proper development and, as already mentioned, mobile technology is one means of implementing this properness. Yet there is “little regard for implementation realities” (Michener, 1998; 2105). Michener (1998) further suggests that participation and its complexities need to be understood from either “planner-centred” and/or “people-centred” typologies. Michener looks at the opposing views regarding participation from these two camps and finds contradictions. There tends to be a “paternalistic tone” emanating from the planners, even when they seek the opinions of the people. Pateman mentions that “it is precisely because participation serves many masters that it remains an essentially contested concept” (Pateman, 2010). That the mobile device is being hailed as enhancing participation in development is an aspect that this book problematises. With mobiles being added to the mix of participatory approaches to development, the resultant complexities need to be analysed and understood in terms of their contribution to development goals. Are mobile technologies the panacea to participatory development?

## **Structure of the Book**

Within mainstream development, participation, as an approach, carries different meanings. A closer look at the activities aimed at realising participation reveal these disparities. With mobile technologies informing development practices, participation has acquired a technological mobility and the main aim of this volume is to begin a discussion of this aspect.

The contributions on participation selected in this book range from livelihood, health, commerce and governance. We have also chosen to include a critical overview of the M4D conference contributions that will serve as a background. Each chapter will look at the concept of participation through the lens of the sector under investigation, with the ultimate goal of elucidating a concept that we believe will allow for the development of theoretical discussions that are much needed for M4D and its growth.

**Chapter Two:** The volume's first contribution provides an overview of the M4D area, drawing on the longest-running conference series solely dedicated to M4D (2008–2014). The overview is situated within participatory theories – giving illustration to the sociotechnical, sociocultural, sociopolitical and socioeconomic structures that add to the complexity of participation aided by mobile technologies. Emphasis is put on the cultural embeddedness of mobile technologies and how this structural landscape precipitates participation. This chapter traces the advances in mobile technologies since the commencement of the conference series in 2008, suggesting that the variances in these technologies engender their own social divides, and the type of mobile technology being used can limit or increase participation. The authors draw on participatory theorists such as Waisbod, (2003) who understand development as participation, and communication as the mechanism that enables participation. Recurring sectors that have benefitted from the application of mobile technologies in development are identified as mHealth, mLivelihood, mGovernance and mLearning. The chapter analyses the specific activities to which mobile technologies contribute some form of progressiveness, and works towards conceptualising the notion of mobile participation, its features, its demands and its shortcomings as well as its flexibility.

**Chapter Three:** In this chapter, the expansive growth of mobile telephony in Africa and its contribution to development initiatives are scrutinised, with a focus on mobile phone features and their participatory nature. Particular emphasis is given to low-literate segments of people in Senegal, the country under study. The authors identify degrees of low-literacy within the group that also inform the varying usage patterns of the same mobile phone features. The aim of this chapter is to expose the limitations of user interfaces that, often, place inhibitive requirements, such as being able to read and write, on users. Illiterate users still want to partake in social activities through their mobile phones. The authors suggest that designing interfaces that accommodate low-literate groups of people are needed if socioeconomic development is to be achieved.

**Chapter Four:** Health, as a sector, is benefitting from the employment of mobile technologies. This chapter looks at the use of mobile telephony in facilitating HIV and AIDS counselling and treatment in Ghana. Using ethnographic methods, this chapter looks at the specific ways the use of mobile phones simplifies the lives of HIV counsellors and their patients. Yet, despite the contributions identified, participation of HIV-positive

community members in health information services through the mobile phone is inhibited by a number of social aspects. For example, sharing phones compromises the privacy of the patients. Even though the number of mobile phone subscriptions in Ghana has surpassed the country's population, there are still groups of people who do not own mobile phones and only gain access to them through their relatives and friends. Mobile phone sharing has been hailed as increasing access; however, it raises privacy issues and may inhibit participation. This is important to consider, especially in regions that still stigmatise individuals living with HIV. This chapter calls for greater scrutiny of mHealth initiatives and their promise to enhance participation.

**Chapter Five:** In this chapter, the participation of indigenous communities in mobile media services in Argentina is analysed. It illustrates the drive of Argentinian app developers to compete globally and shows how they focus on the global market rather than on the local one. The isolation of indigenous communities in the production of media content is discussed in the context of “standardised distribution platforms [Google Play, Apple App Store] that do not favour local markets and are positioned within a wider social structure that invisibilises and discriminates against indigenous peoples.” This chapter draws the conclusion that creating space for groups that are marginalised in the production of mobile services is imperative for the progression of M4D.

**Chapter Six:** In this chapter, the discussion focuses on the water sector and how its governance or monitoring service delivery is benefitting from the use of mobile technologies. It underpins the prospects and the restrictions within which mobile technologies function as governing tools in the water sector. Three M4D water projects form the empirical basis for the evaluation, which concludes that through mobile technologies, service delivery is improved, water consumers' participation is strengthened and, from the implementers' perspective, costs associated with attending to service delivery challenges are reduced. On the flipside are the limitations within which mobile technologies function as monitoring tools in water service delivery. Developing or underdeveloped communication infrastructures and the cost of using mobile technologies challenge mobile water governance. Related to this is the “lack of responsiveness and lack of incentives to use the systems” that have been developed, some which can be blamed on the limited marketing of their availability. The conclusion to the chapter places the responsibility of creating transparency

and accountability in the water governance sector on the users and the institutions providing the service.

**Chapter Seven:** The final chapter of this volume points to a growing concern in technology-aided communication – that of privacy and the security of mobile technology users. Mobile technologies have proliferated in just about every social sector, and their use in promoting the delivery of essential services, while lauded, has opened up discourse on the accumulation of personal data. This chapter adapts the rights-based approach to development, placing the respect for privacy of the end users as a high priority in M4D initiatives. It illustrates privacy by considering the “standards and guidelines around privacy and development initiatives involving mobile telephony.” Using the example of mobile banking, this chapter exposes the “weaknesses in existing frameworks for protecting privacy” and suggests reinforcing the frameworks and creating new standards that place respect for privacy at the core of M4D.

Common to all the chapters is the discussion on participation that draws on Carole Pateman’s (1970; 2012) analysis of the concept. The chapters draw from mainstream development where participation has undergone vigorous analyses and theorising (Pateman, 2012). Participation was already complex, defying methodological and theoretical lock-down, and then the integration of mobile technologies in the doing of participation in development transferred some of its characteristics, such as its ambiguity. At the same time, affixing *mobile* to participation opens up new avenues of research to the application of this approach in development. The chapters point to variations in the practice of participation and suggest that, even though participation is happening, its form and character need to be investigated in part to understand its contribution to social transformation.

## **M4D and Participation: Future Discourse and Practice**

The chapters of this book initiate evocative conversations on how mobile technologies can contribute to expanding mobile participation practices. They provide a foundation for mobile participation, a term that is broadly used but not well understood in the interdisciplinary area of M4D. They present recent work and different perspectives on mobile participation in areas ranging from literacy, health, media production and digital inclusion to water management and privacy. The interdisciplinary nature of M4D is well illustrated in this book through the diversity of the backgrounds of the



contributing authors in social sciences and the computing field. Mobile participation needs both a theoretical foundation and practical applications. Through the contributions we see how the field is evolving, but we also witness a number of constraints that are still limiting its impact.

As Donner (2010) suggests, M4D is an area with a dual heritage – in a sense it is straining to converse across disciplines, much like the wider ICT4D field from which M4D emerged. This dual heritage has to do with users exercising the freedom to use their technologies any way they choose to (see also Kleine, 2013) and, at the same time, the potential to use these mobile technologies to address social gaps pushes for “technology-led interventions [which] are embedded in recursive, context specific relationships with user communities” (Donner, 2010:1). In a sense the chapters in this book, through the analysis of participation, illustrate this tension, which is reminiscent of the M4D research area.

The M4D community is pushing for deeper introspection in both practice and academic inquiry (See Heeks, 2008; Donner, 2010). For more robust knowledge claims to be generated, multifaceted analysis is needed to broaden and develop the area. Future inquiry should focus on dialogue across disciplines to contribute to shaping the scientific view of M4D as well as its application towards social transformation.

In conclusion, this book resonates with other studies that find that mobile technologies are evolving but it is not always the latest or the most sophisticated device that is most appropriate for participatory development. What the contributing chapters show is that simpler devices such as basic phones offer higher degrees of participation. This volume has begun the discussion around mobile participation in development but much work remains to be done in developing our understanding, methods and theories informing the concept.

## References

- Agar, Jon. *Constant Touch: A Global History of the Mobile Phone*. Icon Books, 2013.
- . *The Government Machine: A Revolutionary History of the Computer*. Cambridge, MA: MIT Press, 2003.
- Arnstein, Sherry R. “A Ladder of Citizen Participation.” *Journal of the American Institute of Planners* 35, no. 4 (1969): 216–224.
- Bishop, Patrick, and Glyn Davis. “Mapping Public Participation in Policy Choices.” *Australian Journal of Public Administration* 61, no. 1 (2002): 14–29.

- Collins, Kevin, and Ray Ison. "Jumping off Arnstein's Ladder: Social Learning as a New Policy Paradigm for Climate Change Adaptation." *Environmental Policy and Governance* 19, no. 6 (2009): 358–373.
- Cornwall, Andrea. "Historical Perspectives on Participation in Development." *Commonwealth and Comparative Politics* 44, no. 1 (2006): 62–83.
- Cornwall, Andrea, and Karen Brock. "What do Buzzwords do for Development Policy? A critical Look at 'Participation', 'Empowerment' and 'Poverty Reduction'." *Third World Quarterly* 26, no. 7 (2005): 1043–1060.
- Donner, Jonathan. "Framing M4D: The Utility of Continuity and the Dual Heritage of 'Mobiles and Development'". *The Electronic Journal of Information Systems in Developing Countries*, (2010): 44.
- Donner, Jonathan. "Research Approaches to Mobile Use in the Developing World: A Review of the Literature." *The Information Society* 24, no. 3 (2008): 140–159.
- Few, Roger, Katrina Brown, and Emma L. Tompkins. "Public Participation and Climate Change Adaptation: Avoiding the Illusion of Inclusion." *Climate Policy* 7, no. 1 (2007): 46–59.
- Hayward, Chris, Lyn Simpson, and Leanne Wood. "Still Left Out in the Cold: Problematising Participatory Research and Development." *Sociologia Ruralis* 44, no. 1 (2004): 95–108.
- Heeks, Richard. "The ICT4D 2.0 Manifesto: Where Next for ICTs and International Development?" University of Manchester. Institute for Development Policy and Management (IDPM). Development Informatics Group, 2009.
- . "ICT4D 2.0: The Next Phase of Applying ICT for International Development." *Computer* 41, no. 6 (2008): 26–33.
- Hellström, Johan, and Karefelt, Anna. "Mobile Participation? Crowdsourcing During the 2011 Uganda General Elections." In *Proceedings of M4D2012*, edited by V. Kumar and J. Svensson, 3. Karlstad: Karlstad University Studies, 2012.
- ITU Statistics 2014. <http://www.itu.int/ict/statistics>
- Katz, James E. *Handbook of Mobile Communication Studies*. The MIT Press, 2008.
- Kleine, Dorothea. *Technologies of Choice?: ICTs, Development, and the Capabilities Approach*. MIT Press, 2013.
- Kumar, Vikas, and Svensson, Jakob (eds.). "Proceedings of M4D 2012 28–29 February 2012 New Delhi, India." *Proceedings of M4D* 28, no. 29, 2012.

- Ling, Rich, and Jonathan Donner. *Mobile Communication*. John Wiley and Sons, 2013.
- Michener, Victoria J. "The Participatory Approach: Contradiction and Co-option in Burkina Faso." *World Development* 26, no. 12 (1998): 2105–2118.
- Niang, Ibrahima, Scharff, Christelle, and Wamala, Caroline (eds.). "Proceedings of 4th International Conference on M4D Mobile Communication for Development: M4D 2014, General Tracks." In *International Conference on Mobile Communications for Development-M4D 2014*. Karlstad University Studies, 2014.
- Pateman, Carole. *Participation and Democratic Theory*. Cambridge University Press, 1970.
- . "Participatory Democracy Revisited." *Perspectives on Politics* 10, no. 01 (2012): 7–19.
- Pettersson, John-Sören (ed.) "Proceedings of the 1st International Conference on M4D Mobile Communication Technology for Development (M4D 2008, General Tracks)." 11–12 December 2008, Karlstad University, Sweden. Karlstad University Studies, 2008.
- Said Sife, Alfred, Kiondo, Elizabeth and Lyimo-Macha, Joyce G. "Contribution of Mobile Phones to Rural Livelihoods and Poverty Reduction Inmorogoro Region, Tanzania." *EJISDC* (2010) 42, 3, 1–15
- Svensson, Jakob, and Wicander, Gudrun (eds.). "Proceedings of The 2nd International Conference on M4D Mobile Communication Technology for Development (M4D 2010)." 10–11 November 2010 Kampala, Uganda. Karlstad University Studies, 2010.
- Waisbord, Silvio. "State, Development, and Communication." In *International and Development Communication: a 21st-Century Perspective*, edited by Bella Mody. Sage Publications, (2003): 147–165
- World Bank Source Book, 1996.
- Wamala, Caroline. *Does IT Count? Complexities between Access to and Use of Information Technologies among Uganda's Farmers*. Luleå tekniska universitet, 2010.
- Zambrano, Raúl, and Seward, Ruhiya. Kristine. "Mobile Technologies and Empowerment: Enhancing Human Development through Participation and Innovation." UNDP, 2012



# CHAPTER TWO

## PARTICIPATORY APPROACHES TO DEVELOPMENT THROUGH MOBILE TECHNOLOGIES: A REVIEW OF THE M4D BIENNIAL CONFERENCE PROCEEDINGS

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The unprecedented growth of mobile communication technologies in the global south is being hailed as a remedy for development ills. Mobile technologies are also seen as augmenting participatory approaches to the development industry. In this chapter we evaluate in what ways and in what sectors mobile communication platforms are employed as development tools. In particular we focus on their promise in participation, a term increasingly conflated with development. We draw on the longest-running conference series solely devoted to Mobile Communication Technologies for Development (M4D) in making our inquiry. The sample studied reveals that mobile technologies contribute to greater involvement in sectors such as health, livelihood, governance and education, and they are also said to bridge social divides such as the participation of illiterate people in society. Our approach draws on an understanding of participation as a power-sharing exercise, and analyses the role of mobile technologies in redistributing and reinforcing this structure within development. We note the ambiguity of participation as discussed in

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mainstream development, and construct a discussion of mobile participation, its features, limitations and flexibility.

## **Introduction and Objectives**

The explosive growth of mobile technologies in the global south has had an extraordinary impact on the development industry and discussions on mobile technologies and the contribution to or impact on the practices and discourses that inform development are rife among academics and practitioners. In this chapter we evaluate in what ways and in what sectors mobile communication platforms are employed as development tools. In particular we focus on their promise for participation, a term increasingly conflated with development. In some of our earlier work, we studied the ways mobile technologies have been discussed as vehicles for development (Svensson and Wamala-Larsson, 2015). In this chapter we look at the intersection of mobile technology, participation and development.

For some, development is fundamentally understood as participation, and communication within development projects often refers to the activities that aim to achieve participation (Waisbord 2003:159). If mobile technologies are considered to enhance participatory approaches to “the development enterprise” (Zambrano and Seward, 2012), what form does this participation take, and in what sectors is such participation taking place? To attend to these questions, the chapter draws upon the longest-running conference series solely devoted to Mobile Communication Technologies for Development (M4D), initiated by the HumanIT Research Centre at Karlstad University, Sweden.

The rapid improvement of mobile technology warrants regular reviews on its growing contribution to development. In particular advancing features and new hardware entering the market engender different opportunities as well as challenges. Donner’s (2008) overview, to our knowledge, was the first contribution to a broader understanding of M4D and its role in development. The first aim of this chapter is to provide an updated overview of areas in which mobile technologies are discussed as contributing to development based on M4D conference series contributions. Our second aim is to look at the specific ways mobile technology is enhancing, enabling or perhaps even limiting participatory exercises on the part of the intended beneficiaries. We therefore focus our discussion on the recipients of development measures (beneficiaries) as we seek to understand how mobile technologies encourage participation