

Strengthening Information Society Research Capacity Alliance (SIRCA) III

CALL FOR PROPOSALS – BOOK CHAPTERS ON OPEN DEVELOPMENT

SIRCA III is a theory and capacity building research programme run by the SiRC (Singapore Internet Research Centre) that began in April 2015 and will run until May 2017. SIRCA III has funded six projects led by teams of two senior researchers and/or practitioners to develop cross-cutting open development theoretical frameworks. Another five projects have been funded to test these theoretical frameworks. This call seeks proposals for book chapters on cross-cutting open development themes, critiques and responses to our existing theoretical frameworks, and any related critical or empirical research on open development.

The purpose of the SIRCA III programme is to deepen our understanding as to whether, how, for whom, and in what circumstances **the free, networked, public sharing of digital (information and communication) resources contribute towards (or not) a process of positive social transformation.**

SIRCA III is producing the first volume of a two-part book series titled: ***“Critical perspectives on open development: Empirical investigation of theory construction”*** to be published in 2017 by a major university press.

SIRCA has pursued an open and rigorous process to select projects for open development theory building and empirical interrogation, but there were many qualified and important perspectives that we were unable to fund due to our resource capacity. This opportunity is open to anyone that has a critical, cross-cutting, or empirically-tested perspective that will add insight to our main research question.

Key Dates (Approximate)

- Abstract submission deadline: July 15, 2016
- Abstract feedback: September 1, 2016
- Draft chapter due: December 1, 2016
- Decision on inclusion within the book volume: January 31, 2017
- 2nd draft of chapter due: March 31, 2017
- Submission of final book chapter: May 15, 2017

Submission Requirements

Please submit your **maximum one page chapter abstract** to sirca@ntu.edu.sg by July 15, 2016. Include within your submission **a title for the chapter, your name(s) and institution(s)**. Please ensure that you explain within your abstract how and why your proposed chapter is positioned within this book volume. **Authors are encouraged to engage directly with our emerging frameworks** (see Appendix 1).

Appendix 1 - Preliminary Book Outline

Several factors are coming together that put pressure on the international development community: the economic crises, shifting geographies of poverty and marginalisation, and increasing recognition that ICTs are a pervasive source of inequality. Innovative forms of public sharing and organising via digital information and communication resources have disrupted the status quo in many important ways, offering a new avenue to influence policies and procedures. These new forms are inter-connected by openness, with a common heritage towards inclusion and decentralised collaboration. Yet very little is known regarding the circumstances that the free, networked, public sharing of digital information and communication resources contributes towards a process of positive social transformation, particularly in the case of poor and marginalised populations. *Critical Perspectives on Open Development: Empirical Interrogation of Theory Construction* explores cross-cutting open development themes and critiques the legitimacy and overall purpose of open development.

The book pushes past a theoretical level of engagement with open development and puts the authors' theories and assumptions to the test. Cross-cutting themes were empirically tested in Asia and sub-Saharan Africa and the authors subsequently reflect on how and why to improve their theoretical frames. *Critical Perspectives on Open Development* therefore combines theoretical views with their practical application and critically reflects on such an approach, yielding a valuable source of reference for this emerging area of research. The book also proposes a new model of research within the area of ICT for development as a means to reduce the growing disparities between the potential and realities for ICT to have a positive impact on development.

Introduction: Arul Chib and Caitlin Bentley, Nanyang Technological University

Part 1: Theory

1. [Resources, Learning and Inclusion in Open Development](#)

Marion Walton, University of Cape Town, Andy Dearden, Sheffield Hallam University, and Melissa Densmore, University of Cape Town

Engaging with open development (OD) necessitates learning in which people appropriate and adopt new technologies and socio-technical practices. This typically involves informal learning (i.e. outside of formal education), and will differ between reading relationships (as a user of OD resources) and writing relationships (for full ownership or authorship of OD). If potential participants are unable to connect with existing learning networks, OD initiatives will have limited impact. Communities that aim to be 'open' may exclude people by virtue of race, language, literacies, gender, sexuality, phone/computer ownership, access to Internet or other aspects of identity. This chapter will explore the situated material conditions and informal learning practices that surround processes of inclusion in (and exclusion from) OD initiatives. It will foreground the ways that global inequities of infrastructure, default identities and the cultural practices often associated with openness can "format" participation in subtle but significant ways.

2. [Public Engagement in Open Development: A Knowledge Stewardship Approach](#)

Katherine Reilly and Juan Pablo Alperin, Simon Fraser University

Early open development work assumed that the Internet and openness decentralized power and enabled public engagement by disintermediating knowledge production and dissemination. However, over time, new intermediaries have become involved in the delivery of open information and in the stewardship of open knowledge. We have identified five models of intermediation in open development work: decentralised, arterial, ecosystem, bridging and communities of practice. The goal of this chapter is to explore trends in intermediation across three areas of openness work: open government, open education and open science. How do intermediaries add value, for whom, and where is this value accruing? Does intermediation serve to maintain openness and facilitate public engagement, or does it create new power structures? To answer such questions, it is productive to identify common trends or tendencies in how different types of intermediaries take on the stewardship of open information across the different domains of open development work.

3. [Elements of Trust in an Open Model: Exploring the Role and Place of Trust in Open Education and Urban Services in the Global South](#)

Rich Ling, Nanyang Technological University, John Traxler, University of Wolverhampton and Anuradha Rao, Nanyang Technological University

It is clear that open development can potentially lower the threshold to access IT-based applications for a variety of positive purposes. The chapter investigates the various ways that trust – its absence, presence, or loss and recovery – could potentially impact the effectiveness and operations of an open system. We examine the cultivation, evaluation and maintenance of trust in various open systems by different stakeholders, including users, developers, consumers, as well as the external people and institutions that are connected to or interact with the system. In what ways is trustworthiness incorporated into the development and routine functioning of an open system? How do users develop a sense of trust in the relationships and material on the open systems? Is “gaming” the information on open systems a problem for users and/or developers, and how is this dealt with? These questions are important when considering the efficacy of open development, particularly in the Global South, where empirical studies have not kept pace with the explosion of open initiatives in urban and peri-urban areas.

4. [Open and/or Apolitical? A Critical Re-Examination of Open Information Systems](#)

Janaki Srinivasan and Bidisha Chaudhuri, International Institute of Information Technology Bangalore

This project proposes a theoretical framework to analyse the phenomenon of learning among users of open information systems (OIS) in which learning is taken to be indicative of positive social transformation. In order to understand how learning takes place in the context of OIS use through the interaction of structures and agency, we draw on practice-based situated theories of learning and critical information studies. Such theories prompt us to adopt a broader processual view of learning as an everyday practice that shapes

individual identity which can be then leveraged to negotiate varied life situations beyond the immediate learning of how to use an OIS. Based on this understanding of learning, we develop a framework that will critically examine different levels of learning occurring within a matrix of communities of practice (CoPs) specifically in the context of OIS use. The broader objective of this framework is to unravel the different opportunities of learning (as development) that OIS provide which were hitherto unavailable to its users.

5. [Open development – A Focus on Organisational Norms and Power Redistribution](#)

Anita Gurumurthy and Parminder Jeet Singh, IT for Change

Open development is the employment of ICT-enabled 'openness' towards an improved distribution of power across the intended community of impact. Typically, ICT-based affordances rapidly transform the organisational context of development practice, enhancing organisational outcomes. But affordances cannot be mistaken for norms; the interplay between affordances and norms, and crystallisation of new norms, is critical for moving towards appropriate organisational outcomes. Further, improved distribution of power must occur not merely in the proximity of the '(networked) organising space' but across the intended community of impact. The continuum between the organising and community spaces in 'open initiatives' must be examined critically, especially with regard to governance and distribution of power.

6. [A Critical Capability Approach to Open Development](#)

Yingqin Zheng, Royal Holloway University of London and Bernd Carsten Stahl, De Montfort University

Drawing upon the critical theory of technology/information systems and Sen's capability approach, the Critical Capability Approach (CCA) serves as a conceptual basis for a research framework that could be applied to assess the design, implementation and evaluation of open development projects. Instead of measuring the achievement of technological or political goals, we propose sets of research questions that seek to explicate the ideological and political foundations of openness, and the extent to which openness enhances users' well-being and agency freedom. The research framework aims to equip researchers with some conceptual guidance and methodological suggestions to carry out independent evaluation of open development initiatives, and in this process start a dialogue with policy makers, donors and designers, to engage with all key stakeholders and to protect the interests of the marginalised and disadvantaged. The CCA Research Framework is not sector specific and can be applied to any open development project.

Part 2: Empirical Interrogation of Theory

7. **How do Farmers' Digital Literacy Levels Influence their Ability to Benefit from Open Data?**

By Chiranthi Rajapakse and Piyumi Gamage, LIRNEasia

This research explores the factors and informal learning practices that influence inclusion in, and exclusion from, an open data initiative to engage farmers in the effective use of crop advisory agricultural information in Sri Lanka. Walton, Dearden and Densmore (2016) argue

that the design of gateways will have an effect on the degree of inclusion within open development initiatives. Mobiles are regularly assumed to be accessible vehicles of open development, but in reality there are many informal learning processes, individual attributes and community dynamics that affect uptake. These aspects can also determine the extent and form by which marginalised people contribute as passive or active users. Our project investigates these claims within an open development initiative that provides crop advisory information to farmers. Qualitative research methods will be used to assess the learning processes by which farmers access the information provided through the mobile app, the effect that factors such as digital literacy, socioeconomic status, literacy, gender, and land ownership status has on their interaction with this information, and the extent that they contribute back to their communities and the system.

8. Understanding the Structures and Mechanisms that Foster Stewardship in Open Development

By Jean-Paul Van Belle and Paul Mungai, University of Cape Town

Understanding the structures and mechanisms that foster stewardship in open development (in Kenya). We extend a previous study which helped identify candidate mechanisms that intermediaries use to produce openness in three areas of open development namely open government, open science and open education in Kenya. This study will focus on the arterial intermediaries and ecosystems. The arterial school aims to resolve obstacles (marginalized) people face when accessing open data/information by introducing "info-mediaries." The ecosystems school of thought seeks to ensure quality in data and production of value out of this data through intermediaries, and supporting policies and systems.

9. Can Citizen Science Enhance Trust in City Governance and Advance Urban Informatics?

By Satyarupa Shekhar Swain and David Sadoway, Citizen Consumer and Civic Action Group

This chapter adds to the discourse on the importance of citizen science in enhancing the trustworthiness of the governance of urban services. Our research responds to Ling and Traxler's theoretical framework by assessing the openness – as defined by access, participation and collaboration – of one key urban service, namely the road and pedestrian infrastructure in Chennai, India. We will examine the extent to which the urban infrastructure governance system has been designed to be 'trustworthy'. To assess trustworthiness, we will employ an analytical framework that is based on the principles of transparency, accountability and participation. Second, we will assess the perceptions of trust among stakeholders, and attempt to answer how – rather than whether – open access, participation and collaboration influences citizens' perception of the trustworthiness in government. Third, we will assess the role that an ICT tool may play in improving trust and trustworthiness of the system and stakeholders, including the trust government gives to citizen-generated data.

10. Digitisation as 'Openness'? Mapping Electronic Governance and Shifting Politics of Land in West Bengal, India

By Sumandro Chattapadhyay and Himadri Chatterjee, The Centre for Internet and Society

In West Bengal, India, the BUCHITRA project has operationalised an upgraded version of the land management information system titled BHUMI that has been implemented in other states of India. The fundamental plan of BUCHITRA is to have an integrated database that brings together different land administration functions into a 'single window service' system available and accessible to the public in general. This research empirically evaluates and frames the transformation of the 'organising space' of the BHUCHITRA project, and thus of land governance, in West Bengal. The inquiry focuses on internal transformations in the structure of land governance in West Bengal — including knowledge and skill flows, internal distribution of power, and the making and reconfiguration of the functions of public and private actors — driven by the deployment of the BHUCHITRA project. Simultaneously, the study seeks to follow the 'governed' subject, or the recipient of government 'service,' into the field of land dispute settlements to understand the impact of this shift in the technologies of governance on the 'community space' of the citizens.

11. Using the Critical Capability Approach to Empirically Analyse the Design and Implementation of the Open Government Initiative within the Education Sector in Tanzania

By Goodiel C. Moshi and Deo Shao, University of Dodoma

Governments are promoting openness through publication of open data, believing that it will result in participatory policymaking and enable positive returns to society. This research investigates the critical capability approach to assess the design, implementation and evaluation of the Tanzania's open government partnership (OGP) Action Plan II as a case study. Tanzania adopted the Open Data Initiative (ODI) in 2011. It carried out its OGP Action Plan I in the period 2012-2013, and is currently implementing the OGP Action Plan II in 2014 – 2016. In the current phase, the government of Tanzania is committed to publish its data on prioritised sectors particularly Health, Education and Water on its open data portal (www.opendata.go.tz). This study analyses how the open data initiative has evolved, and how technology and ODI stakeholders shaped each other during the OGP Action Plan II. Additionally, our research critically examines how the evolution of the open data initiative has impacted the well-being of its direct and indirect beneficiaries.

Conclusion: Matthew Smith, International Development Research Centre