

ICT for Sustainability – Current and future research directions

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Abstract

This workshop brings together researchers from the entire iSchools community to propose, share and discuss their current research and future research agendas and foster collaborations on ICT for Sustainability. ICT plays a major role in sustainability. It threatens sustainability as ICT devices cause carbon emissions, produce e-waste, but it can also be an enabler of sustainability, in form of systems that support the protection of natural resources, and that foster social sustainability, in the form of systems that foster communities and participation. These supporting systems come from many intellectual traditions within and beyond the information field and design. The iSchools community provides an excellent place to discuss this crucial topic at the intersection of information, society, and technology.

Keywords: ICT4D (information and communication technology for development), sustainable computing

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1 Purpose and Intended Audience

This workshop brings together researchers from the entire iSchools community to propose, share and discuss their current research and future research agendas and foster collaborations on ICT for Sustainability. Sustainability as a research focus has inspired the creation of a number of workshops and conferences, including the International Conference on ICT for Sustainability (<http://www.ict4s.org>).

ICT plays a major role in sustainability. It threatens sustainability as ICT devices cause carbon emissions, produce e-waste, but it can also be an enabler of sustainability [4], in form of systems that support the protection of natural resources, and that foster social sustainability, in the form of systems that foster communities and participation [8, 5]. These supporting systems come from many intellectual traditions within and beyond the information field (e.g., requirements engineering [9], software quality [10], life cycle analysis [6]) and design (e.g., sustainable HCI [1, 11]). As information scholars, we have a responsibility to work to ensure the survival of life on this planet, including humans as well as other rational agents, namely animals [2]. Sustainability is thus a critical value for ICT researchers to embrace and strive toward [3, 7, 12]. The iSchools community provides an excellent place to discuss this crucial topic at the intersection of information, society, and technology.

This workshop will bring together scholars from across the information field studying ICT for sustainability, to foster new interdisciplinary and multidisciplinary collaborations.

2 Proposed Format

The workshop is planned as a full day workshop. We will solicit abstracts, papers, and/or position statements, and will set up easychair for managing submissions. Participant registration will be managed through the conference registration site. We will start the morning with a series of short presentations by the authors, each of them followed by a brief discussion. The audience will be engaged by guiding questions from the moderators to spark discussion. We will wrap up the morning session by summarizing the talks and connecting them to identify common topic areas and future research needs. For the afternoon sessions, we envision a series of breakout sessions that discuss selected common topic areas and future research needs. These breakout sessions shall facilitate the design of a future research agenda as well as the development of new research collaborations between the participants. The results from the breakout sessions will be reported back in a plenary wrap up session that outlines possible next

steps for the forming research community. To ensure that the breakout groups do not get stuck, the moderators will employ a variety of creativity techniques to facilitate creative and thoughtful discussion.

3 Goals or Outcomes

The goal of the workshop is to form and strengthen an ICT4Sustainability research community within the iSchools and to facilitate new collaborations. We plan to prepare a report and workshop proceedings to disseminate the results. These proceedings will also be linked to from the workshop website.

4 Relevance to the iConference

The iSchool community has a number of researchers working on the topics related to ICT4Sustainability who have not had the chance yet to connect on this level. The format of the workshop is intended to be open to participation from a broad audience and to facilitate interaction between new and established researchers. We think the iConference is a perfect place for this discussion to begin.

The format of the workshop with short presentations and interactive sessions with breakout groups has proven successful in the past at the International Workshop Series on Requirements Engineering for Sustainable Systems (<http://www.ics.uci.edu/~bpenzens/2014re4susy/>).

5 Expected/Preferred Number of Participants

The expected number of attendees is 25; the preferred maximum number of attendees is 35.

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