Indigenous HCI

Workshop at OzCHI 2019, Perth

Chris Lawrence,
Tuck Wah Leong
University of Technology Sydney
Christopher.Lawrence@uts.edu.au
TuckWah.Leong@uts.edu.au

Margot Brereton,
Jennyfer Lawrence Taylor
Qld University of Technology
m.brereton@qut.edu.au
jennyfer.taylor@hdr.qut.edu.au

Greg Wadley
University of Melbourne
greg.wadley@unimelb.edu.au

ABSTRACT

The *Workshop on Indigenous HCI* aims to bring together researchers and practitioners (Indigenous and otherwise) who work with Indigenous people and communities on technology projects and human-computer interaction (HCI) research.

The workshop is oriented to establishing connections and supporting discussion; to enabling participants to network and to share ideas and experiences in a diverse environment. As such, we invite academic and industry participants as well as community representatives. We also recognize the importance of all aspects of the technology ecosystem including teaching, research, design, development and implementation. We invite those who are interested to do technology work with Indigenous communities but are unsure of how to begin.

Our long-term aims are to establish Indigenous HCI as an ongoing theme in Australian HCI. and at OzCHI. and to shape a set of guidelines for doing this work.

CCS CONCEPTS

• Human-centered computing~Human computer interaction (HCI)

KEYWORDS

Indigenous HCI; Closing the Gap;

1 Motivation

The workshop is concerned with how the human-computer interaction (HCI) discipline can promote Indigenous engagement with technology research, design, development, implementation and education in Australia. The workshop aims to contribute to a global discussion in HCI about how best to engage with Indigenous communities in technology research and design. We ask: How should HCI engage with Indigenous Australians? What should the goals of this engagement be? How should the engagement be conducted? We build on the workshop "Digital Land Rights and Reconnecting Indigenous Communities" at OzCHI 2017.

Colonial practices have contributed to the disconnection of many Indigenous people from their traditional homelands, culture and practices (Lawrence, 2015). Yet many Indigenous Australians experience a renewed sense of identity and resilience and a renewed relationship with their cultures and communities through the use of technology (Ormond-Parker et al., 2010). Research suggests that technologies can improve literacy, numeracy, and wellbeing for Indigenous Australians (Edmonds et al., 2012, 2014). In Australia, nearly all remote communities have mobile access. Indigenous peoples are adopting technologies, often in attempts to exploit their benefits while resisting negative impacts (Carlson 2013). Indigenous-designed apps such as *Welcome to Country* (http://www.welcometocountry.mobi/) promote Indigenous knowledge and cultures, while the *IndigenousX* project (https://twitter.com/indigenousxltd) promotes connection and an Indigenous voice through social media.

A review of ICT4D projects conducted in Indigenous Australian communities showed that cultural misunderstandings often prevent projects from reaching their full potential (Shaw et al., 2014). Sinanan (2008) found in a Victorian study that while Indigenous youths had high rates of phone ownership, their engagement with government services was low. Likewise, Edmonds et al. (2012, 2014) found little interest in education and employment-oriented phone apps. Thus, Indigenous communities are most likely to embrace technologies when they influence design, and when technologies are able to be accessed on local terms and for

local purposes (Irani et al., 2010). This demonstrates the importance of placing Indigenous Australians at the centre of designing, implementing and evaluating new technologies.

This workshop aims to support the ongoing discussion about how the HCI discipline can best support genuine involvement by Indigenous people. This includes reflection on work to co-design technologies for deployment in Indigenous communities in Australia (e.g. Brereton et al. 2014; Taylor et al. 2017; Peters et al., 2018) and internationally (e.g. Bidwell 2016). We welcome submissions that employ postcolonial (Irani et al. 2010) and participatory (Iversen et al. 2012) approaches to designing, deploying and evaluating technologies for Indigenous wellbeing. Other areas of interest include cultural protocols, impact sourcing, positive computing, knowledge sharing, and emerging technologies. A further aim is to create pathways to support Indigenous communities, developers, entrepreneurs and start-ups to develop and operate Indigenous-owned technology.

A guiding principle of the workshop will be to caution against the temptation to over-generalize from findings arising from work with particular communities. There is a tendency to speak of "Indigenous Australia" as though this represents one homogeneous group with a single set of characteristics, circumstances and requirements. In fact, Australia's Indigenous communities represent many nations, cultures, languages and geographical and political contexts.

We invite participants who are working or planning to work in Indigenous HCI or who are interested in learning more about this work, as well as those who are educating students in technology design and development. We hope to attract academics, developers and industry partners wanting to make a real difference for Indigenous Australians.

2   Participants

Our aim is to develop a network of researchers and practitioners (Indigenous and otherwise) who will meet to share ideas and experiences. Participants who submit position papers will be invited to present their work. All attendees can expect to meet potential collaborators and to share experiences with people interested in "closing the gap" in Australia via technology projects.

While the focus is on work involving Australian Indigenous communities, we encourage people with experiences working with other Indigenous communities to attend and share their wisdom and experiences.

This workshop is inclusive, for two main reasons:

- There are relatively few people involved in Indigenous technology work and they are scattered across multiple academic disciplines, government and industry sectors;
- Indigenous HCI involves work across all aspects of the computing ecosystem including education, research, design, development and implementation.

We invite participants including:

- People who have engaged in technology design and/or research involving Indigenous communities;
- People who plan to engage in such work in the future, or are interested in becoming involved in Indigenous HCI projects;
- Representatives of Indigenous communities who have been involved in technology projects, plan to be involved, or are interested in starting technology projects.

People interested in attending the workshop should submit either:

- a *position* paper, max 2 pages (for people already working on relevant projects), or
- a *social* paper, max 1 page (informal CV for people interested in starting work or meeting people in this area)

Both *position* and *social* papers should use the standard OzCHI paper format and be submitted to our Easychair site (URL to be announced).

Papers may precis an author's prior published work.

3   Schedule

9:00 AM	Assemble at venue for Welcome to Country
9:30 AM	Introductions – 2 minutes per attendee
10:00 AM	Invited talk by representative of Noongar mob
10:30 AM	Morning tea
11:00 AM	Presentation of position papers (3 x 30 minutes each including discussion)
12:30 PM	Lunch
1:30 PM	Chris and Tuck present the UTS 'Coding for Culture' project
2:00 PM	Presentation of position papers (3 x 30 minutes each including discussion)
3:30 PM	Afternoon tea
4:00 PM	Discussion of issues arising and future plans
5:00 PM	End of formal proceedings, adjourn for dinner or drinks

4   Organizers

A/Prof Chris Lawrence leads the Centre for Indigenous Technology Research and Development at UTS. He is a Noongar person originally from Perth and leads a team of researchers and students to create new pathways to help Indigenous developers, entrepreneurs and start-ups.

A/Prof Tuck Leong is a Human-Computer Interaction (HCI) and Interaction Design Researcher who specialises in human-centred approaches of inquiry and technology design. He has published widely in topics that contribute to Experience-

Centred Design, Participatory Design, and Interaction Design. He is also the Director of the Interaction Design and Human Practice Lab at UTS.

Prof Margot Brereton researches the participatory interaction design of ubiquitous computing technologies and their interfaces. She develops innovative designs, methods, and theoretical understandings by designing to support real user communities in selected challenging contexts. Her approach is highly iterative and often involves growing user communities as the design evolves, by understanding and responding to socio-cultural factors.

Jennyfer Taylor's PhD research focuses on participatory design of novel technology for teaching and learning Aboriginal and Torres Strait Islander languages, working with remote communities in Queensland and the Northern Territory. She has hands-on experience in facilitating respectful and sensitive community-based co-design, in ways that privilege community agendas and are underpinned by reciprocity and engagement

Dr Greg Wadley is a Senior Lecturer in the School of Computing and Information Systems at the University of Melbourne. His work with Indigenous communities includes participation in the #thismymob project at UTS, as well as projects at Melbourne involving family safety, digitization of art, collaboration across language barriers, and engagement in schools.

REFERENCES

Bidwell, N. J. (2016). Decolonising HCI and interaction design discourse: some considerations in planning AfriCHI. XRDS: Crossroads, The ACM Magazine for Students 22(4): 22-27.

Brereton, M., P. Roe, R. Schroeter and A. Lee Hong (2014). Beyond ethnography: engagement and reciprocity as foundations for design research out here. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, ACM.

Carlson, B. (2013). "The 'new frontier': Emergent Indigenous identities and social media.

Edmonds, F., Rachinger, C., Waycott, J., Morrissey, P., & Kelada, O. (2012) 'Keeping Intouchable': A Community Report on the Use of Mobile Phones and Social Networking by Young Aboriginal People in Victoria. Institute for a Broadband Enabled Society (IBES) University of Melbourne, Melbourne. (2012), 1–32

Edmonds, F., Rachinger, C., Singh, G., Chenhall, R., Arnold, M., de Souza, P., & Lowish, S (2014). What's ya Story: The making of a digital storytelling mobile app with Aboriginal young people, 2014, pp. i – 65.

Irani, L. Vertesi, J. Dourish, P. Kavita, P. & Rebecca E. (2010) Grinter3 Postcolonial Computing: A Lens on Design and Development, Proceedings of the SIGCHI conference on Human Factors in Computing Systems: HCI For All. ACM.

Iversen, O. S., Halskov, K., & Leong, T. W. (2012). Values-led participatory design. CoDesign, 8(2-3), 87-103.

Lawrence, C. (2015) Influences on food and lifestyle choices for Aboriginal and Torres Strait Islander Australians: an Aboriginal perspective. (PhD thesis) available at http://www.healthinfonet.ecu.edu.au/key-resources/bibliography/?lid=28895

Ormond Parker, L. Corn, A. Fforde, C. Obata, K. O'Sullivan S. Indigenous technology and Indigenous communities. Presented at the 2009 AIATSIS National Indigenous Studies Conference and the 2010 symposium Information Technologies and Indigenous Communities, http://aiatsis.gov.au/sites/default/files/products/monograph/information-technology-indigenous-communities-ebook.pdf

Peters, D., Hansen, S., McMullan, J., Ardler, T., Mooney, J., & Calvo, R. A. (2018). Participation is not enough: towards indigenous-led co-design. In Proceedings of the 30th Australian Conference on Computer-Human Interaction (pp. 97-101). ACM.

Shaw, G., Brereton, M., & Roe, P. (2014) Mobile phone use in Australian indigenous communities: future pathways for HCI4D. Proceedings of the 26th Australian Computer-Human Interaction Conference on Designing Futures: the Future of Design (pp. 480-483). ACM.

Sinanan, J. (2008) Social tools and social capital: reading mobile phone usage in rural indigenous communities. Proceedings of the 20th Australasian conference on computer-human interaction: designing for habitus and habitat. ACM

Taylor, J. L., Soro, A., Roe, P., Lee Hong, A., & Brereton, M. (2017). Situational when: designing for time across cultures. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (pp. 6461-6474). ACM.