Communications of the Association for Information Systems

Demarginalizing Interdisciplinarity in IS Research: Interdisciplinary Research in Marginalization

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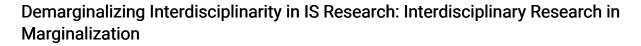*University of Oxford*

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Abstract:

This paper reports on the second Workshop of a World University Network (WUN) Research Development Funded project on "The trans-nationalization of Indigenous movements: The role of digital technologies" at the University of Southampton, UK. The workshop explored interdisciplinarity and how interdisciplinary collaboration can help scholars study complex social phenomenon, such as the ways in which marginalized Indigenous communities use and shape digital technologies (such as social media) to enhance their cause. The workshop brought together scholars from diverse disciplines to engage in a critical debate. In addition to scholars from information systems, scholars from history, political science, geography, literature, arts, and anthropology came together to discuss how marginalized Indigenous communities can use digital media. The workshop highlighted the need for more interdisciplinary research and called for more critical approaches to bring such marginalized topics to the forefront of research in information systems. We consider three broad areas of inquiry in this paper: demarginalizing methodology for interdisciplinary research, interdisciplinary perspectives for demarginalization, and interdisciplinary contexts for demarginalization.

Keywords: Interdisciplinarity, Indigenous peoples, Demarginalization, Decolonization.

1 Introduction

In the information systems (IS) discipline, we study how people engage with various forms of information and communication technologies (ICT) in diverse contexts with rich, complex, and diverse histories. However, this very diversity can at times present methodological and theoretical challenges. Davison and Martinsons (2011) suggest that IS research will make a more significant scholarly and organizational contribution "when it incorporates different methods from a diversity of epistemological perspectives" (Davison & Martinsons, 2011, p. 290). We agree. In fact, we go further and suggest that IS researchers should not only encourage diversity in the discipline (Davison & Martinsons, 2016; Galliers, 2011; Tarafdar & Davison, 2018) but also more proactively forge cross-disciplinary alliances with scholars in disciplines that intersect with our own. To this end, we believe that interdisciplinarity presents a powerful means to advance the IS discipline (Klein, 2010).

At the moment, however, very few IS scholars engage in research projects that involve any degree of interdisciplinary collaboration (Palmer, 2010). In recently reviewing the IS literature, Tarafdar and Davison (2018) found only five papers that included interdisciplinarity to some degree. In this already limited sample, the authors further noted that researchers conducted most such research in the context of business use—they did not consider critical social issues at all (p. 539).

Following our first workshop (Ortiz et al., 2019), this second workshop highlighted the value of interdisciplinary research in IS, particularly as it relates to marginalized Indigenous communities' using digital technologies. Researchers from a broad range of disciplines (history, literature, arts, sociology, geography, anthropology, political science, management, and IS) came together to explore the issues surrounding these marginalized Indigenous groups. By exploring the topic from various disciplinary perspectives, we hope to show how such research can add value to the IS research community.

This paper proceeds as follows: in Section 2, we discuss the theoretical background and the key terms that pertain to the workshop. In Section 3, we provide the details of the workshop. In Section 4, we provide the participants' viewpoints. Finally, in Section 5, we offer suggested directions for future research and conclude the paper.

2 Background

2.1 Demarginalization

Demarginalization and interdisciplinarity are two interrelated concepts that have deep roots in contemporary critical theory and, in particular, in debates surrounding postcoloniality (Bhabha, 1994; Spivak, 1999). As a branch of critical theory, postcolonial theory calls attention to power asymmetries embedded in social contexts as a vestige of—or, more accurately, evidence of the ongoing nature of—colonial power relations (Myers & Klein, 2011). In light of their social, theoretical, and methodological predispositions, we find the work of postcolonial critical theorists Gayatri Spivak and Homi Bhabha particularly relevant to any discussion about demarginalizing interdisciplinarity in IS research.

From this perspective, developing a truly diverse interdisciplinary terrain of IS research requires critiquing the discipline's most fundamental underlying assumptions; that is, a methodological *de*colonization. Such a decolonization approach forces one to question many of the most taken-for-granted notions developed in contexts that are foreign to the contemporary social situation [1]. Researchers have called for interdisciplinary contributions (Tarafdar & Davison, 2018), but it remains to be seen how the discipline can develop such research if it continues to work with orthodoxies, theories, and methods tethered to a colonial past. Such a lack of interdisciplinary research is particularly problematic in the context of studying information systems used by/for/against socially marginalized or vulnerable populations (e.g., see Bonilla & Rosa, 2015; Ghobadi & Clegg, 2015; Thomas & Narayan, 2016; Young, 2018).

2.2 Interdisciplinarity

Interdisciplinary research refers to a specific form of inquiry that happens at the intersection of various disciplines (Tarafdar & Davison, 2018). From the perspective of those working in demarginalization, this

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[1] A familiar related term is the postcolonial perspective, which aims to depart from the dependency on conventional theories and method to explore social situations (Bhabha, 1994). Another unfamiliar but important term is anti-colonialism, which strongly rejects any approach that is developed in the light of colonialism.

emphasis on intersections does not concern finding the meeting points of disciplines (i.e., their points of agreement and convergence) so much as it concerns engaging with spaces that emerge in the border regions where the disciplines meet (Smith, 2012, p. 202). These spaces comprise the fields of resistance (Spivak, 1999) where researchers can examine the intersection of ideas; namely, how the contemporary challenges the prevailing orthodoxy.

Demarginalization researchers typically deal with issues surrounding a "social group (individual, society) in an unfavorable situation (e.g., spatial, economic, social) and to observe whether their situation improves (demarginalization) or worsens (marginalization)" (Pelc, 2018, p. 5). For example, IS researchers have used Bhabha's (1994) work to explain power relations in an organizational context (e.g., Ravishankar, Pan, & Myers, 2013) and Spivak's (1999) critiques to understand problematic legacy policies in the context of ICT4D projects (e.g., Lin, Kuo, & Myers, 2015). These examples highlight the potential for including demarginalization into IS researchers' broader methodological and critical toolkit.

Table 1 briefly defines the key terms related to the workshop.

Table 1. Key Terms and Definitions

Key terms	Definition
Interdisciplinarity	Interdisciplinary research focuses on producing useful "knowledge at the intersection of different disciplines" (Tarafdar & Davison, 2018, p. 528). An interdisciplinary approach differs from *intra*disciplinarity, which refers to creating knowledge using various concepts from in a particular discipline. Two related but different terms include cross-disciplinarity and multi-disciplinarity. The former refers to contributing knowledge to more disciplines than one, whereas the latter concerns invoking concepts from different disciplines in order to create knowledge in a single discipline.
Demarginalization	A critical practice comprising conscious and astute actions towards engagement with the surrounding world that focuses on liberation from oppression and repression in order to improve the situation (O'Brien, 2013). In the context of digital media and information systems, demarginalization refers to "an individual's sense of the legitimation of a dimension of identity formerly felt to be socially marginalized, as among some participants in supportive online communities of like-minded people" (Chandler & Munday, 2011, p. 95).
Decolonization	Based on works by critical theorists Homi Bhabha and Gayatri Spivak, decolonial thinking is a response to postcolonial issues, "a way out of colonialism" (Smith, 2012, p. 204), and a way to enact demarginalization in theory and practice (Sandoval, 2000). "Decolonization is a process which engages with imperialism and colonialism at multiple levels. For researchers, one of those levels is concerned with having a more critical understanding of the underlying assumptions, motivations and values which inform research practices" (Smith, 2012, p. 21). "Decolonization, however, does not mean and has not meant a total rejection of all theory or research or Western knowledge. Rather, it is about centering our concerns and world views and then coming to know and understand theory and research from our own perspectives and for our own purposes" (Smith, 2012, p. 41).

3   Description of the Workshop

The University of Southampton Business School in the UK hosted this workshop in November, 2018. The workshop formed part of a larger project that involved several member institutions of the Worldwide Universities Network (WUN) and other research universities[2]. Building on an earlier workshop (see Ortiz et al., 2019), the workshop focused on bringing together scholars and doctoral students from the collaborating institutions to explore themes related to Indigenous peoples' using digital technologies in the context of ongoing social movements, particularly as it relates to their ability to mobilize, disseminate collective aims, and reconfigure actor networks through connective media.

The two-day workshop brought together scholars with diverse perspectives. Participants came from various disciplines but shared a common focus on social movements, digital activism, and issues surrounding contemporary Indigenous peoples. Eight faculty members across five universities and five

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[2] For details, see the WUN website (https://wun.ac.uk/wun/research/view/the-trans-nationalisation-of-indigenous-movements-the-role-of-digital-technologies).

doctoral students from three universities participated in the workshop and presented work based on ongoing studies of Indigenous peoples in South Asia, North America, and Australasia (see Table 2).

Table 2. List of Participants

Faculty	Discipline	Institution	Country
Amber G. Young	Information systems	University of Arkansas	USA
Michael Myers	Information systems	University of Auckland	NZ
Hameed Chughtai	Information systems	University of Southampton	UK
Chris Prior	History	University of Southampton	UK
Valentina Cardo	Political communication and journalism	University of Southampton	UK
Stephen Morton	English literature	University of Southampton	UK
Suay M. Özkula	Sociology	University of Sheffield	UK
Alpa Shah	Anthropology	London School of Economics	UK
PhD students	**Discipline**	**Institution**	**Country**
Eugene Young	Education	Missouri Baptist University	USA
Tomas Borsa	Anthropology and data science	University of Oxford	UK
Joanna Wilkin	Geography and environmental science	University of Southampton	UK
Cat Morgan	Web sciences	University of Southampton	UK
Özlem Demirkol	Media and communication	University of Southampton	UK

4 The Presentations

In this section, each presenter summarizes their presentation in their own voice. We classify the presentations into three sections based on their focus: 1) demarginalizing methods for interdisciplinary research, 2) interdisciplinary perspectives for demarginalization, and 3) interdisciplinary contexts of demarginalization

4.1 Demarginalizing Methodology for Interdisciplinary Research

4.1.1 Interdisciplinarity and Demarginalization in Information Systems Research (Michael Myers)

This presentation summarized the entire WUN research project, which focuses on how certain marginalized Indigenous groups use digital technologies and social media, including how they use these technologies for global collaboration. Socially marginalized people include individuals who are excluded from economic, social, and political life (Walsh, 2006). Marginalized groups frequently face exclusion from decision-making bodies (Sunstein, 2002).

However, new digital technologies give socially marginalized people around the world a means through which they can make their voices heard. Through digital technologies such as the Internet, many social movements have become possible and given previously excluded people an opportunity to express their voice and coordinate their campaigns to spur change. Increasingly, Indigenous peoples around the world no longer work in isolation; they collaborate across social media and attract international attention.

We believe that IS researchers cannot study ICT use in such a rich and complex context by themselves. Rather, the topic requires interdisciplinary collaboration. We need to hear the views of scholars from disciplines such as history, political science, and sociology. Hence, this workshop explored such interdisciplinary collaboration, which concurs with previous calls for such collaboration to take place (Kauffman, 2005; Tarafdar & Davison, 2018). Obtaining diverse views on such a complex and sometimes fraught topic from various disciplines can be a challenge, but all the participants willingly took it.

4.1.2   Decolonizing Information Systems Methodologies (Hameed Chughtai)

This presentation centered on the idea that Western, White, or Euro-centric worldviews primarily influence studies on human practices in the IS literature. The theoretical and methodological toolkits available to researchers force them to put forward insights that further reinforce what hooks (1992) refers to as the "white gaze". That is, by looking at vulnerable researched populations (such as Indigenous people) through an oppressor's eyes, one tends to use methodologies that favor Western views. This position not only paints a partial picture of the world but also gives the impression that qualitative methodologies are neutral and lack any political agenda—a naive view that can have negative consequences. For qualitative researchers involved with participants (such as ethnographers and fieldworkers), looking at vulnerable people in this way effectively amounts to wielding power over them by methodically ignoring their views and further marginalizing them. As Butler (1993, p. 136) says, "the ethnographic conceit of a neutral gaze will always be a white gaze, an unmarked white gaze, one which passes its own perspective off as the omniscient, one which presumes upon and enacts its own perspective as if it were no perspective at all".

While IS researchers often borrow theories and concepts from sociology and anthropology, they tend to overlook the fact that researchers in those disciplines continue to debate methodology decolonization (Sandoval, 2000). For example, scholars have discussed anthropology as the "daughter" of the "era of violence" that the "Western world" enacted (Lévi-Strauss, 1966, p. 126) and "the handmaiden of colonialism" (Asad, 1973, p. 16). For Lévi-Strauss, classical anthropology had a crucial problem: it treated its vulnerable subjects (Indigenous cultures) as *mere things* of intellectual curiosity and denied them the right to represent themselves. This approach to indigenous cultures created a lacuna in understanding *the other* in that researchers refused to use decolonized approaches (such as Indigenous methods and ways of knowing to make sense of Indigenous cultures). In sociology, researchers have suggested interdisciplinary approaches for a long time to address oppressed and marginalized groups' needs and problems (Klein, 2010).

In the IS discipline, little research has critically discussed the predominance of *Western*ized theories. Researchers often use qualitative methodologies in ways that offer little engagement with participants' worldviews. Therefore, a decolonial approach would benefit research on Indigenous peoples because "researchers often appear to assume that a given theory that they are adopting is universally applicable" (Davison & Martinsons, 2016, p. 242). In science and technology studies, researchers have started to argue that applying methodology in a way that does not consider the context of who they research can further marginalize the vulnerable and their practices (Jasanoff, 2010, p. 196).

Many subtle but powerful traces of colonial past remain in the oppressed's practices that researchers need to carefully disentangle. Similarly, methodologies that arose from colonial violence continue to exert their power as researchers build new theoretical frameworks using the same methods. I suggest that IS researchers need to decolonize research methodologies to meaningfully engage with real-world issues related to the oppressed and the marginalized.

4.1.3   The Importance of Maps for Indigenous Communities (Joanna Wilkin)

This presentation focused on the role that maps can have in helping Indigenous communities record and share their knowledge of their local area. Researchers have inextricably linked the production of traditional maps to colonialism (Harley, 1988) where cadastral-type maps became essential to demarcate territory, record local natural resources, and note points of interest. These Western-based cartographic representations of space have continued into today's digital world with existing mapping applications shown to exclude many Indigenous communities' land rights. For example, despite launching in 2005, Google Maps only recently added spatial information on the Indigenous lands in Canada (Rush, 2017) and Brazil (Seamester, 2017) after Indigenous communities and organizations, such as the Fundação Nacional do Índio in Brazil, conducted long campaigns. Excluding such information on these maps reiterates and reworks power asymmetries. As Indigenous communities and organizations use maps to control and grant access to land and to understand resource allocation, without spatially explicit boundaries to "defend", Indigenous communities are vulnerable to exploitation from investment plans for infrastructure and mining to land appropriation in the guise of "conservation". Furthermore, because maps help to record places of historic, cultural, and religious significance including local or Indigenous names, remote or data-scarce regions that lack clearly defined or demarcated Indigenous territories, one lacks spatially explicit information about the importance of areas to Indigenous communities (Ramirez-Gomez, Brown, Verweij, & Boot, 2016). This means "authoritative" official maps may overwrite these areas.

As such, Indigenous communities need maps to help them cope with the increasing demands for resources. Under-represented social groups such as Indigenous communities want greater influence in the decisions that affect their lives and livelihoods, and… [also] recognition that the use and integration of non-expert, place-based knowledge and experience can help address complex land use problems to become valued, legitimized and sanctioned" (Brown & Kyttä, 2018, p. 1). Participatory mapping (PM) constitutes a potential approach to create these maps. PM encourages individuals, groups, and communities to create maps that record and document their own and their community's values and concerns. In fact, individuals from various Indigenous communities have already used PM to avoid eviction in Botogá's eastern hills (Allen, Lambert, Apsan Frediani, & Ome, 2015), to encourage land tenure security in eastern Panama (Vergara-Asenjo, Mateo-Vega, Alvarado, & Potvin, 2017), to evaluate ecosystem services in Southern Suriname (Ramirez-Gomez et al., 2016), and to help manage water and land resources in tribal groups in Northern Australia (Robinson, Maclean, Hill, Bock, & Rist, 2016). While one can create maps for a wide range of human-environment applications, they predominantly help individuals in marginalized communities to share knowledge and they empower such communities in wider society.

Introducing PM to Indigenous communities does have certain challenges, such as conceptually "folding" Indigenous knowledge into a geographical space. Politically negotiating the rendering of customary traditional land use with "Western", "scientific", or "state" documents can be difficult (see Bryan, 2011). Another challenge involves the technical or administrative aspects of collecting, managing (updating), and sharing data appropriately (see Olson, Hackett, & DeRoy, 2016). The presentation also briefly discussed the recent growth in digital mapping and geographic information systems (GIS) in conjunction with these participatory mapping techniques (e.g., qualitative story maps, Missing Map Project). Participatory approaches to mapping may encourage and facilitate the self-mapping of vulnerable and isolated communities. Ultimately, PM can enable communities to map their lands and resource use and bolster the legitimacy of their customary claims to resources by appropriating states' presentation techniques (Fox, Suryanata, Hershock, & Pramono, 2016).

4.2   Interdisciplinary Perspectives for Demarginalization

4.2.1   Social Media Blur Identity Boundaries and Complicate Identity Management for Native American Nations (Amber Young)

This presentation discussed the role that social media has in shaping Native American identity. The United States has seen much conflict about who constitutes a Native American and who should be eligible for citizenship in Native American Nations (i.e., sovereign governments that operate as hybrid organizations with political, cultural, and corporate interests). Federally recognized tribes have a special relationship with the US and state governments. Sovereignty allows nations to create and enforce laws, receive federal assistance, avoid taxation, and so on. However, non-citizens undermine sovereignty when they claim they have a right to citizen resources. These claims may be illegitimate, fueled by jealousy, or have merit as is the case for Five Tribes freedmen, descendants of African people that the Five Tribes enslaved.

The US outlawed slavery in the 1860s. In the late 1800s and early 1900s, the Five Tribes entered treaties with the country to establish each tribe's national sovereignty. Some nations enrolled freedmen as citizens, while others rejected the freedmen and denied them the rights associated with citizenship (e.g., voting rights and access to medical care). In the 1980s, those freedmen who had been enrolled as citizens and their descendants were disenrolled from their tribes and told they were no longer Native American. In response to freedmen's claims of citizenship rights, the Five Tribes have asserted that pressure to enroll freedmen poses a challenge to tribal leaders' sovereign authority to decide who and who does not constitute a citizen. In 2017, one of the Five Tribes, the Cherokee Nation, opened citizenship to freedmen descendants.

Other nations beyond the Five Tribes face identity challenges. New technologies afford identity contests through which diverse stakeholders challenge the boundaries of Native American identity. Open ancestry communities, DNA tests, and heightened visibility of information about how to enroll in Native American Nations have all led to surges in applications for citizenship. While many nations have enrolled new citizens, they have also commonly disenrolled families who have been citizens for generations. For instance, the Nooksack Tribe disenrolled 15 percent of its citizens in 2016.

Identity boundaries represent cognitive limits that define and constrain a group's identity. Identity boundary changes and challenges that Native American nations face have left many asking: what does it mean to be Native American? Some Native American leaders assert that anyone who is not a *citizen* cannot refer to themselves as Native American. No term to describe someone who has some Native American ancestors but is not a citizen of a federally recognized tribe exists. By most popular definitions, someone whose ancestors are all Native American may not be Native American. Alternatively, someone could have no Native American ancestors and be Native American. Such cases are outliers, but these special cases make defining Native American identity challenging. While identity contests have played out for many years in some circles, social media has intensified these contests and brought Native American identity to the fore of public discourse (Young, 2018).

Examining digital identity artifacts of members of the Five Tribes and Five Tribes freedmen of Oklahoma has revealed that social media constrain identity boundary definition, afford identity boundary expansion, and afford identity boundary permeability. Social media constrain identity boundary definition by giving voice to people with conflicting identity narratives. For instance, some freedmen refer to themselves as freedmen, others Indian. One woman explains: "I hate the term freedmen. I say Cherokee citizen, 'cause that's who we are-Cherokee citizens" (Herrera, 2016). Social media afford identity expansion. For example, the Choctaw used social media to stand with Standing Rock and promote Indigenous Peoples Day and, thus, expanded their identity narrative to identify with Indigenous peoples across the world. Social media afford identity permeability as well. When the Cherokee Nation reenrolled freedmen in 2017, the nation changed its website in real time to reflect its new, inclusive identity.

My research highlights identity boundaries as one aspect of identity that is particularly vulnerable to contestation through social media. One can theoretically apply the boundary concept to explain the role that social media play in shaping the boundaries of Native American identity. My research outlines three social media affordances/constraints for identity boundary management. Without boundaries, identity will dissolve into a globalized identity, and local groups will lose what makes them unique. When unaddressed, legitimate boundary challenges will weaken identity definitions and undermine sovereignty. However, we can address these challenges with social media since it affords identity expansion and permeability. One should weigh the benefits that identity expansion and permeability bring against the risks associated with losing a clearly defined identity. These risks need to be carefully managed. My research exemplifies how research can address a marginalization context in a way that benefits a marginalized group. I have tailored my research's implications for a Native American and freedmen audience rather than dominant society.

4.2.2   Not only do Simple Narratives Not Tell the Whole Story, they Reify Oppression (Eugene Young)

This presentation discussed Native American freedmen's (i.e., descendants to Africans that the five "civilized" tribes enslaved) efforts to have their citizenship rights recognized. In the US, when slavery ended, freedmen in Indian Territory were left in limbo regarding tribal citizenship. In 1866, treaties between the U.S. Government and the "civilized" tribes allowed citizenship for some freedmen and revoked citizenship for others. Disenrollment waves hit in the 1980s as tribes purged Black citizens from their rolls. Recent lawsuits have resulted in some freedmen being reenrolled as citizens. Others continue to fight for their rights.

As lawsuits for freedmen rights have continued, the way the Chickasaw portray the history of slavery on their website has changed as well (Young & Miranda, 2014). Recently, the Chickasaw Nation website suggested that people were not enslaved but willingly fled to the Chickasaw for refuge and a better life. To combat this frame, Eugene discussed how he has drawn on two first-hand accounts from women who survived. These women recount terror, murders, and mutilating beatings at the hands of those who bought and sold them and separated them from their families (Baker & Baker, 1996). Few firsthand accounts of slavery in Indian Territory exist because so many people did not survive or could not read and write. The few accounts that exist describe physical and sexual abuse (Krauthamer, 2013). Denial of rights continues as freedmen, many still residing in Oklahoma, cannot vote in tribal elections or receive benefits such as college tuition waivers. Local schools cannot receive the federal funding they deserve because the tribes do not count freedmen as citizens.

Traditional media ignore freedman. There is a myth that Black Indians do not exist. The Chickasaw Nation has a broad and impactful digital presence from which they can spread misinformation about Black Indians. Fighting for human rights is challenging in cases of nested marginalization. Researchers are

hesitant to engage with the freedmen's cause or even study their social movement for fear others will see them as "anti-Indian". Freedmen are hesitant to engage in digital activism because anti-Indian groups can hijack their words and use them in ways that harm the tribes freedmen want to join.

Recently, IS scholars have expressed interest in learning from marginalized peoples whose unique knowledge, perspectives, and skills lack representation in research (Davison & Díaz Andrade, 2018). Too often, scholars drop in and out of marginalized communities, pass off hasty judgements as fact, and gloss over any intra-group conflicts that challenge their neatly packaged "insights". While researchers may be removed from the context and consequences of their research, marginalized individuals are not. Thus, research needs to hear the voices of marginalized groups that research affects. Further, research needs to hear *multiple, diverse* voices from any group as no community exists in complete unity. By paternalistically simplifying research narratives to protect marginalized peoples, researchers create a taboo of critical engagement with marginalized peoples and reify the oppression of those experiencing nested marginalization.

4.2.3 Transnational Activism among the Ruins of Empires: African Solidarity Movements (c.1955-65) (Chris Prior)

This presentation focused on the role of national elites in the emergent postcolonial African states of the 1950s and 1960s, and whether the transnational activism of African leaders in African solidarity movements can be considered a success. Therefore, it provided some historical context to the workshop by exploring some of the ways that transnational solidarity manifested itself in a pre-digital age.

Not merely content with rallying their own citizens behind national emancipatory or reconstructive projects, African leaders sought to rally people around the idea that their own endeavors were part of broader "pan-African" efforts to solidify horizontal connections across national borders. Their messages in print and radio media emphasized a common shared experience of imperial rule and a continued sense that the West's post-imperial relationship with Africa was principally a "neo-colonial" effort to maintain control in a different form underpinned. This underpinned leaders' efforts to build pre-digital bonds of transnational sentiment. Indeed, Africans focused on the unfinished business of liberation in southern Africa, the fight against apartheid, the Portuguese empire, and White racist minority rule in Southern Rhodesia. Pan-African meetings into the 1960s typically centered on expressions of solidarity with those in the south. Suspicion of larger multilateral bodies such as the United Nations and how willing they were to speak on behalf of the emergent nations further led Africans to focus on action at a continent-wide level. Thus, plenty of pressing reasons drove pre-digital Africans to articulate their solidarity.

However, while these African leaders were united in promoting Pan-African solidarity against colonialism, they had much less consensus over how intensely interconnected a future Africa would look. Some, particularly Kwame Nkrumah of Ghana, had a utopian vision for a United States of Africa. Others, such as many Nigerian leaders, wanted to maintain a nebulous African solidarity to encourage internal cooperation in economic development and technical expertise. At the same time, many national leaders became increasingly anxious about their own positions of authority. Indeed, the possibility of secessionist action helps explain the African leaders' attachment to established national borders. Hence, in 1963, the newly formed Organization of African Unity voted to respect national borders defined during the colonial era despite member states' common acknowledgement that such borders were wholly artificial and paid no heed to pre-colonial realities. Instead, as the 1960s progressed, talk focused more on African cultural underpinnings rather than transnational political solidarity, and the amount of financial support given to other African independence movements fell. In an era when leaders' thoughts were focused on the needs of their own citizens, pre-digital transnational solidarity had its limits.

But how should we judge the success of the African solidarity movements in a pre-digital era? What constitutes successful activism? Many papers at this workshop discussed the difficulties in defining this topic. When it comes to the case of postcolonial Africa, to criticize African political leaders for failing means to criticize them for not living up to the demands of the most prominent and insistent political activists (such as Nkrumah) rather than recognizing that there were lots of different opinions on how much transnational solidarity there should be. However, these postcolonial conversations promoting African solidarity still continue to this day—discussions about the establishment of some form of East African federation, for example, recently resurfaced as they have done intermittently since the 1960s. Hence, we can conclude by saying that a broader, cultural reinvocation of a pan-African identity nowadays does not seriously threaten national borders but performs a mostly symbolic and identity-forming function. Therefore, the ideas developed in a pre-digital age have, in one sense, endured.

4.2.4   Zombies in the Tar Sands (Stephen Morton)

Along with other aspects, opposition to the controversial extraction of fossil oil in the Tar Sands of Alberta and the construction of the XL Keystone Pipeline linking Alberta and the Gulf of Mexico via Native American lands in North Dakota has defined the Idle No More movement for Indigenous recognition and struggle in Canada. A small group of Indigenous women initiated Idle No More in 2012. They "connected specific concerns in their community to a broader critique of the then Harper government's omnibus Bill C45, which weakened a slate of environmental regulations" (Stoddart, Smith, & Graham. 2018, p. 450). This social movement sought to rethink the relationship between Indigenous thought, land, and sovereignty. Against the fetishism of settler colonial law, which frames first nations culture and sovereignty as primitive, artists such as Nadia Myre and Brian Jungen; writers such as George Blondin, Lee Maracle, Jeannette Armstrong, Tomson Highway, and Richard Van Camp; and legal and political thinkers such as Zoe Todd, John Borrows, and Greg Coulthard have developed powerful cultural narratives that challenge the colonial logic of capitalist modernity. Such anticolonial narratives have mobilized the resources of Indigenous thought to rethink the relationship between society and the land.

Morton considers one example of the transmission of an Indigenous form of knowledge in the story "On the Wings of This Prayer" (Van Camp, 2013). This story frames the ecological devastation that the fracking in the Tar Sands of Alberta's Athabasca river basin caused in terms of the dystopian codes of a zombie apocalypse. And yet the dystopian figure of the zombie—like the figure of the Weetigo in Cree cosmology—also implies its dialectical opposite: the possibility of an alternative to a capitalist economy fuelled by cheap fossil energy.

4.3   Interdisciplinary Contexts for Demarginalization

4.3.1   Totems and Tablets: Haida Hybridity in the Age of the Digital (Tomas Borsa)

This presentation focused on Borsa's ongoing doctoral research into the Internet's social implications and collective imaginaries on Haida Gwaii. He began by highlighting the different ways to conceptualize the "digital divide" and argued that one must see the Internet as a social-technical assemblage that power relations guide and constrain (Parks & Starosielski, 2015). From here, he described the considerable gaps in Internet access and affordability that continue to plague Indigenous peoples in rural and remote regions of Canada. He noted that, that, while the roots of such "digital divides" (Van Dijk, 2005) have their basis in far broader structures of dispossession and exclusion, Indigenous peoples' digital self-development continues to accelerate. One can see as much in Skidegate, a village in Haida Gwaii, where the imminent completion of a comprehensive fiber-to-home network will soon mean people there will no longer have to bear with some of the most expensive, unreliable, and bandwidth-limited connectivity in the Northern hemisphere. Younger, more technically literate community members in particular seem to view the new network as a largely positive development—the "imagined affordances" (Nagy & Neff, 2015) of which include greater opportunities for self-expression, personal development, and professional growth. However, others, particularly the more elderly or less affluent community members, see the sudden availability of high-speed Internet as something of a Faustian dilemma (Ginsburg, 1991) in that the very tool provided in response to calls for equal opportunity has an equal, if not greater, capacity for disempowerment. What will become of the social regulation of traditional knowledge if made to abide by the all-encompassing paradigm that "information wants to be free"? What will become of individuals whose knowledge does not readily conform to the roles, rules, and relay points of the networked tomorrow? In short, for all that it may positively impact on the lives of *some* community members, how might the arrival of ubiquitous connectivity reinscribe, or even exacerbate, existing inequalities among others?

In setting out to examine such questions, Borsa's research calls for one to closely read the variable scales at which the "digital divide" may persist long after the establishment of basic network integration and highlights that networked flows of information are germane to the broader project of self-determination only insofar as control remains in the hands of Indigenous peoples and communities. As Borsa's research continues to develop, we may count it as among a small but growing number of works (e.g., Duarte, 2017; Lewis, 2016; TallBear, 2016) that explicitly focuses on fostering cross-disciplinary dialogue between Indigenous studies and information science and that has already done much to carve out a space for Indigenous lived realities in the intellectual history of information technologies. By highlighting the agency of small-scale, locally hewn network solutions, Borsa's research will also contribute to reframing "digital

divides" from one of needs to one of strengths and can help develop new policy indicators more attuned to local knowledge and lived experience.

4.3.2 Reproductive Politics Online: Political Women, Gender and Social Media at Election Time (Valentina Cardo)

In this presentation, Cardo discussed her paper in which she investigates how women political leaders have used digital technologies in their political campaigns to discuss gender specific issues and concerns. She focused on three leaders: Theresa May (who became U.K. Prime Minister in July, 2016), Jacinda Ardern (who became N.Z. Prime Minister in September, 2017) and Hillary Clinton (who ran against and lost to Donald Trump in the November, 2016, election in the US). In the paper, she asks whether these leaders could overcome the barriers for women in politics, sidestep gatekeepers, and speak on behalf of other women and represent them via using social media.

Despite being treated as a minority with broadly underrepresented concerns, women actually constitute only a perceived, not an actual, minority. As such, national legislatures often underrepresent and insufficiently cater for women's issues (in other words, issues that have a direct effect on women's lives, such as abortion and childcare), whereas they perceive typically "masculine" issues (such as the economy and foreign policy) as more important for the "majority". The way the media across the world cover politics and the women in it reflects this power imbalance between the important (and masculine) and trivial (and feminine) (Ross, 2017).

She then asks whether women political leaders can redress this gap between what society values as politically meaningful and what it treats as "feminine" and trivial by changing the narrative with online media. She investigates whether social media provides a space for political women to become a critical mass, to change masculine norms of political debate, and redefine what counts as political concern. Ultimately, she focuses on determining whether social media provided a platform for the leaders considered in this paper to feminize political debate (Lovenduski, 2005). If so, can we say that digital technologies give a voice to traditionally underrepresented groups and, therefore, have the power to make a difference in women's lives?

The thought that Internet technology and social media in particular would revolutionize politics and empower previously marginalized groups has been popular among digital optimists (Rheingold, 2000; Shirky, 2008; Trippi, 2004) who have hailed digital media as able to make a difference in the lives of those traditionally underrepresented. The reality has been somewhat different: online like offline politics remains the preserve of a narrow elite of mostly white, heterosexual, young men, whereas women are still less likely to discuss (and do) politics online (Davis, 2005; Stromer-Galley & Wichowski, 2011). The literature on e-campaigning reflects this imbalance by showing (mainly American) men's success: we know about McCain (Chadwick, 2006), Obama's (Hendricks & Denton, 2010) and Trump's (Iosifidis & Wheeler, 2018) online campaigns, but we know very little about, for instance, Clinton's (Enli, 2017) and Palin's. In her paper, Cardo focuses on redressing this gap in the literature.

4.3.3 Feminist Twitter: A Sense of Solidarity (Cat Morgan)

This presentation, grounded in the research on feminist politics that the Web has afforded, explored the reasons why feminists use Twitter as a site of political action. The networks of Web 2.0 are inherently social and participatory (Fotopoulou, 2016), which makes it easier for users to connect with others. Twitter, a highly social network, provides a space for individuals to converse with others, create connections, and form communities based on mutual interests (Murthy, 2012). For feminism, the Web has been transformative and allowed individuals to create alternative publics that function as spaces to speak out and be heard by others.

We cannot underplay the hashtag's relevance; feminists have used it as an essential tool to drive their agenda. Morgan discussed prominent examples of these campaigns, such as #BringBackOurGirls, #MeToo, and #WhyIStayed. These campaigns all center on the marginalization of women and girls and have an element of violence associated with them.

Individuals frequently use online abuse (e.g., negativity, hostility, and trolling) to diminish and silence women (Mendes, Ringrose, & Keller, 2019). Standing up to users who target women represents a key behavior that defines feminist Twitter members. Rather than "feeding" trolls by responding to their verbal attack or meme onslaught, feminists directly address the targeted individual by expressing sympathy and solidarity as a way to connect with and support them.

Performing this research from an interdisciplinary perspective has been essential to consider Twitter's design and features and how the feminist Twitter community interprets these things to manage how they use the platform. Designing a qualitative study that uses digital ethnography allows researchers to investigate the nuances of an online community and the practices that influence feminist collaboration and communication.

4.3.4   Wordplays, Screenshots, and Analogies: Researching Dissent on Twitter When It Doesn't Want to be Found (Özlem Demirkol)

This presentation focused on the methodological shortcomings of the current trends in Twitter research when investigating the dissident political talk on Twitter in repressive settings. This presentation built on the methodological challenges Demirkol faced during her ongoing doctoral research into the ways dissidents communicate and mobilize on Turkish Twitter amidst pressures by the state and strict media censorship. She argued that, in repressive settings where dissidents need to employ self-censorship in order to avoid prosecution, researchers need to look beyond the explicitly political content when analyzing the ways dissidents use Twitter and/or other social media.

Research into citizens' political communication and mobilization on Twitter have so far overwhelmingly focused on the political hashtags and political keywords as markers of political talk (see Jungherr, 2016; Larsson & Moe, 2012; Ogan & Varol, 2017; Tumasjan, Sprenger, Sandner, & Welpe, 2011; Vaccari et al., 2015; Wright, Graham, & Jackson, 2015). By providing access to a considerable amount of political talk centered on specific issues, hashtags and keywords allow one to gain detailed insights into the ways users mobilize and make meaning around political concerns. This overdependence on the convenience that such datasets provides, however, has received criticism for dismissing the less explicit forms of political engagement that happen between ordinary citizens (Bruns, Moon, Paul, & Münch, 2016; Wright et al., 2015). This limitation becomes increasingly problematic when it comes to countries that leverage dissident tweets as criminal offense. In these settings, finding relevant keywords and hashtags that a meaningful proportion of the Twitter users use represents a growing issue due to self-censorship (Tanash, Chen, Wallach, & Marschall, 2017).

Especially after the failed coup attempt in July, 2016, Turkey has become notorious for imprisoning thousands of social media users over alleged links to terrorist organizations (Associated Press, 2016) and more recently for criticizing the government over military operations in Afrin, Syria (BBC, 2018). Recent research shows not only a major increase in how often ordinary users censored themselves but also a significant decrease in how often they used hashtags after the failed coup attempt (Tanash et al., 2017). Consequently, social media users have begun to lean towards more indirect commentaries; rather than using identifiable keywords, they communicate dissent through subtext and political satire. As Papacharissi (2012) notes, "individuals confronted with a restricted stage for self-presentation seek to overcome expressive restrictions through imaginative strategies that include play" (p. 10). Similarly, Özlem's analysis shows that dissidents express grievances through more indirect and playful commentaries often in ways that have meaning to individuals who are familiar with the vernacular Twitter culture. These expressions that one can classify as "tactical frivolity" (Kingsmith, 2016) include wordplays with politicians' names and appropriating otherwise non-political events and viral phenomena to comment on politics. Rather than mobilizing through hashtags, they disseminate the tweets that challenge politicians' statements and the tweets that contain calls for action through retweet networks. These less explicit forms of political engagement that exist in repressive contexts show the need for more nuanced studies that go beyond the "one-size-fits-all" approach when researching Twitter. Future Twitter research needs to consider these communities' linguistic, cultural, and political differences and the effect they have on the ways citizens interact with the communication technologies (Cuevas, Gonzalez, Cuevas, & Guerrero, 2014).

4.3.5   Endogenous Bottom-up Social Change & Opening Participatory Structures in Civil Society Organizations (Suay Özkula)

This presentation discussed how participatory structures in civil society organizations (CSO) create new engagement opportunities for marginalized groups and, thus, help them achieve demarginalization. In recent decades, the digital space has changed the landscape of socio-political engagement by offering new political opportunity structures through new spaces and structures; new and comparatively more flexible, decentralized, and horizontally organized social movements; and social movements that include new combinations between horizontal and hierarchical structures, collective, and connective actions

(Bennett & Segerberg, 2012). Even so, barriers to participation remain, such as digital divides; an unequal distribution of technological capital, state interventions, regulations, and censorship (region-dependent); and differing platforms affordances and restrictions. As a result, these barriers hinder meaningful participation (see Jenkins, 2006; Selwyn, 2003, 2004, 2006; Selwyn & Facer, 2010) in that 1) access does not equal use, 2) use does not equal *political* use, 3) a larger range of voice means that certain voices get diluted, and 4) interaction does not necessarily mean participation. Thus, although digital technologies have opened up global access, that access is neither necessarily global, unconditional, nor politically significant by default.

Addressing these issues in participatory culture, this presentation offered findings and insights on an enquiry into how recent organizational changes at Amnesty International affected participatory potential in digitally enabled activism. It drew on digital ethnographic fieldwork in the organization's Digital Communications Program at the International Secretariat (London) from 2013 to 2014. The fieldwork showed an organization that was adapting to social media culture and, through that, opening up its structures through endogenous bottom-up social change. In theory, doing so should allow demarginalized Indigenous communities to become more involved in social change and, via global organization that integrates these initiatives, more transnational. Therefore, through adapting a more flexible and decentralized model (mirroring structures more commonly found in digital space), the organization shed some of the traditional barriers to participation.

The presentation also suggested, however, that certain (if not new) barriers persist as activist communications (though not necessarily how individual users or communities have created initiatives) have largely provoked the changes. Digital space being socio-material, the spaces that activists occupy shape and confine their communications. Because technology embeds culture, the former reflects cultural norms, and digital space, while open to Indigenous communities, has been largely shaped by progressive Western activist movements. For users trying to engage with organizations, that creates a new problem. Although a local issue may receive organizational support and potentially become viral, it will have to adapt to popular digital communications or specific platform culture or "vernaculars" (Gibbs, Meese, Arnold, Nansen, & Carter, 2015)—a digital or social media filter. However, since Western communities create these communications, it remains to be seen whether such filters do not also adapt and, therefore, westernize movements or at least prioritize those that better suit Western audiences.

Thus, going forward, on the one hand, some changes in the civil society sector can open CSOs up to niche voices (i.e., individual users, demarginalized communities, and small local or Indigenous communities). On the other hand, it is difficult to assess whether such communities actually benefit from these developments. Thus, future research would need to question whether these organizational changes, though seemingly integrative, actually convey a false utopian sense of transnationalizing local issues.

5   Conclusions, Suggested Directions, and a Call for Research

The IS discipline includes more than studies on designing, adopting, implementing, and using technology. As this workshop has highlighted, IS researchers must also consider the discipline's broader implications and imaginaries in a way that considers the people, places, cultures, and social histories that can mediate (and, at times, foreclose) the possibilities of our technological encounters. Taking such an approach necessarily involves challenging the orthodoxies of IS research where technology sits firmly at the center.

As the participants in this workshop have illustrated in their own unique ways, a refusal to move beyond such an "instrument-centered" (Marvin, 1990, p. 4) approach inadvertently downplays considerations about critical social issues such that a wide array of user-communities and contexts can become marginalized and reduced to "silenced centers" (Spivak, 1999, p. 269).

What must we do to ensure that we do not mute IS research's social aspects in our investigations? One suggestion involves broadening the point of inquiry. Indeed, more than one focal point can exist. In order to better capture diverse and at times competing perspectives, the participants in this workshop, for one, believed that we need more interdisciplinary approaches. To this end, the IS discipline would also do well to take stock of the paradigms that inform our oft-neglected sister discipline science and technology studies (STS), which focuses less on how technical efficiencies evolve and more on the impacts that such developments have—that is, on "who is inside and outside, who may speak, who may not, and who has authority and may be believed" (Marvin, 1990, p. 4). Likewise, we might find inspiration in the cultural anthropology— a discipline where one cannot escape interdisciplinarity and that prompts one to consider

the ways in which interpersonal, cross-cultural, and historic factors can give rise to technologies "both rooted in and routed through particular places" (Clifford, 2013, p. 52).

For all the idiosyncrasies in their respective research emphases, regions, and case studies, the participants in this workshop shared a broad commitment to many of the notions found throughout contemporary critical social theory. One such notion is that existing methodologies in the IS literature often lack Indigenous grounding —particularly if one applies them to marginalized Indigenous peoples. As for why, scholars developed many extant theories without considering (or at the expense of) worldviews and epistemologies outside colonial sanctioning's myopic gaze. As such, one cannot simply generalize and extrapolate the insights that emerge from such theories as though they can capture the nuances of marginalized peoples' experiences. In this perspective, Spivak (1999, p. 358ff) highlights some examples, such as the theories built on McLuhan's ideas of a global village and Lyotard's framework of legitimation. Although we agree with Spivak's analysis of the contemporary social situations, like her, we have neither the hubris nor desire to upend decades of work by rejecting existing theory outright. Rather, we highlight the impossibility of a "one-size-fits-all" model. Simply put, we need new methodological and theoretical approaches to integrate decolonial perspectives into IS research and, thereby, amplify marginalized people's voice.

To this end, we need to develop more nuanced, critical, and polyvocal narratives. We might start with one of the more common issues in qualitative research, which involves identifying the audience, or asking "for whom do we write?" (Davison, 2019). For demarginalization to occur, we suggest that researchers should focus on identifying and acknowledging for *whom the text speaks*. Following the lead of critical theorists such as Spivak and Bhabha, doing so allow IS researchers— particularly those working in the paradigms of critical and interpretive methods—to recover and deconstruct everyday practices as "from the archives of a colonial system that subjugated its colonial subjects through a pedagogic enterprise" (Morton, 2011, p. 76). In short, an invitation to demarginalizing interdisciplinarity promises to shine light on ways of knowing that researchers have hitherto often brushed aside

Thus far, the Association for Information Systems (AIS) has taken an apolitical stance towards technology both in terms of its functions and use conditions. However, as the AIS has a mission to "serve society", we agree with Fedorowicz, Bjørn-Andersen, Olbrich, Tarafdar, and Te'eni (2019) that its stance needs to change. This workshop showed that the politics around information technologies will only become more complex as IS phenomena proliferate and become further integrated into the minutiae of our everyday life. As we have seen, that includes the uptake, appropriation, and reinvention of digital technologies by Indigenous peoples across the world who have leveraged an array of technical affordances to overcome social exclusion in many different forms. Drawing on our interdisciplinary backgrounds, we unequivocally suggest that the AIS revise its mission to more adequately include the politics of information technologies and systems. We do not mean to suggest that researchers should set out to blur the line between activism and academia. Instead, we hope that the AIS will acknowledge the sensitivities (both internal and external) associated with our phenomena of choice and that it may use its platform to encourage research that not only advances the discipline but also paves the way for real-world impact through knowledge creation that supports and improves the lived realities of marginalized peoples.

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