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Matt Levy
US Department of Defense, matthew.levy@spawar.navy.mil

Arto Lanamäki
University of Oulu, arto.lanamaki@univaasa.fi

Rudy Hirschheim
Louisiana State University, rudy@lsu.edu

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Robust Action Strategies in a Connected but Unequal World: Revisiting American Pragmatism for Social Justice-focused Research in Information Systems

Matt Levy
U.S. Department of Defense
matthew.levy@spawar.navy.mil
USA

Arto Lanamäki
Interact Research Unit
University of Oulu
Finland

Rudy Hirschheim
Entrepreneurship and Information Systems
Louisiana State University
USA

Abstract:

In this paper, we elucidate robust action as a research framework for the information systems (IS) field. We contend robust action provides a suitable frame to conduct pragmatist research in IS and can be useful in researching the multi-faceted terrain of social justice. The robust action frame has its roots in pragmatism, and, moreover, given the history of American pragmatism as rooted in social justice, robust action can provide a suitable frame to confront broad-scale issues on a societal scale—a topic that little IS research has examined. We define robust action's components, illustrate its philosophical rooting in the pragmatist tradition, and show how one can use it.

Keywords: Robust Action, Pragmatism, Social Justice, Grand Challenges.

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1 Introduction

In a world ubiquitously interconnected and simultaneously globalized with wealth concentrated to a disproportionate few (Elmes, Mendoza-Abarca, & Hersh, 2015; El Khoury, 2015), new struggles emerge in the search for fair and just relations between citizens and society (Tyler, Boeckmann, Smith, & Huo, 1997; Rawls, 1971). These struggles can be experienced by those daring to be free, and how they experience impediments to freedom by a multitude of factors that can undermine equality (Nitzan & Bichler, 2009; West, 1989). We can see many examples in contemporary times: while globalization has brought people out of poverty, it has also spread inequality, impeded the fair and just distribution of resources, and impeded individuals' general ability to lead a healthy life (Claeys, 2012; Andrews, 2008). While deregulation can streamline previously burdensome governmental policy, it can also legalize previously unjust principles (Roberts & Parks, 2006). Furthermore, while increasing online access can serve to inform, it can also provide an avenue to spread misinformation that can obstruct a society's ability to participate in civil discourse (O'Neil, 2016; Van der Linden, Leiserowitz, Rosenthal, & Maibach, 2017). Moreover, we contend that information, systems, and technology play an inseparable role in these contemporary issues and, thus, devote this paper to proposing the robust action framework (Ferraro, Etzion, & Gehman, 2015) to engender IS research on a societal scale.

Others have previously promoted such a direction. In his keynote address at AMCIS 2004, C. West Churchman chastised the IS research community for not doing more to address societal and global issues. Enid Mumford sought to move organization-centered IS research to problem solving perspectives and a "rational reconstruction" of IS to focus on topics such as community-oriented policing, drug epidemics, and cybercrime (Mumford, 1999, p. 103). Richard Watson called for a broader conception of IS research to show how IS can improve an entity's ability to attain its goals, improve entities' ability to cooperate on shared goals, and transform entities in intended and unintended ways (Watson, 2014). And Winter and Butler (2011) contended that "IS research is undervalued, at least in part, because as a community we fail to engage the full range and scale of problems to which our work and knowledge is relevant" in calling for "bigger" problems the IS field could address (Winter & Butler, 2011, p. 99). Lastly, several others have called for IS research on grand challenges (Sahay, Sein, & Urquhart, 2017; Gholami, Watson, Molla, Hasan, & Bjørn-Andersen, 2016; vom Brocke, Stein, Hofmann, & Tumbas, 2015; King, 2013; Beath, Berente, Gallivan, & Lyytinen, 2013). To summarize, the IS research community has echoed from the beginning the need to address societal-scale issues, but, in Winter and Butler's (2011) words: "as a community we fail to engage the full range and scale of problems to which our work and knowledge is relevant" (p. 99).

We developed the robust action framework to engender thinking about complex (due to the large and heterogeneous number of actors involved and the manner in which they associate and interact), uncertain (in that actors cannot enumerate possible future states), and evaluative (in that different actors have different views about what the problem actually is and, therefore, what constitutes an acceptable solution) research topics. The robust action framework focuses on the idea of multivocality: the actions that leading actors take that enable them to artfully keep future action lines open in strategic contexts where opponents try to narrow them (Padgett & Powell, 2012, p. 24). Leifer (1983, 1991) first explicated the term multivocality in behavioral research to describe the strategies that chess players employ. More recently, researchers have conceptualized multivocality under the auspices of robust action and rooted it in philosophical pragmatism as a way to understand how actors and ecosystems can address societal grand challenges (Gehman, Ferraro, & Etzion, 2018; Etzion, Gehman, Ferraro, & Avidan, 2016; Ferraro et al., 2015).

We contend robust action can be useful for IS research to engage with complex, uncertain, evaluative research topics at a societal scale. In this paper, we focus on one such issue, social justice (Tyler et al., 1997; Rawls, 1971), and show how one can use the robust action framework to engage in research on a social justice issue.

2 The Robust Action Framework

The robust action framework contains three "strategies" to confront societal-scale problems: multivocal inscriptions, distributed experimentation, and participatory architecture (Ferraro et al., 2015, p. 373). The point of these strategies is to use them as a collective frame to analyze how actors engender discursive and material activities through a process of gradual learning to sustainably engage different audiences with different interpretations. Liefer (1991) first used the term to explain strategic actions in chess games

to explain how “ex ante framework[s] are useless, as evaluations and strategies are in continuous flux” (Liefer, 1991, p. 46). More recently, researchers have used the term to explain patron-client relationships in warlord politics as a state-building activity (Nung, 2008), to explain the network-bridging strategies that Deng Xiaoping employed in the 1980s to guide post-Mao China to economic development (Padgett & Powell, 2012), and, relevant to this paper, as a framework for research on grand challenges (Ferraro et al., 2015). In this more recent work, Ferraro et al. called on researchers to consider the aforementioned strategies jointly to investigate these societal-scale issues. In Sections 2.1 to 2.3, we detail the three strategies and how one can jointly leverage them.

2.1 Multivocal Inscriptions

The term “multivocal inscriptions” represents the scripts, routines, processes, norms, guidelines, and other inscriptive forms that guide action. Researchers have theorized actors to develop them from an opportunistic position in order to create 1) flexible opportunism vis-à-vis narratives that sustain different interpretations among various audiences with different evaluative criteria and 2) increased levels of coordination without requiring consensus by accommodating perspectives from different and sometimes incommensurate vantage points and audiences (Ferraro et al., 2015; Furnari, 2014; Padgett & Ansell, 2012, 1993; Nung, 2008). Actors develop multivocal inscriptions through a two-way flow of multivocal discursive formation where, in one direction, they make equivocal statements that purposely take an ambiguous position among incommensurate and potentially competing interests, which allow heterogeneous groups to generate diverse interpretations. In return, actors gather bits and pieces of these interpretations to reconstruct statements that appeal to multiple sides (Nung, 2008). This two-directional flow highlights multivocality’s instrumental and constitutive nature and how, through an interaction ecology, actors can structure inscriptions as text, artifacts, and even public persona (Ansell, 2011; Bohman, 1999).

Accordingly, multivocal inscriptions compel researchers who focus on uncovering their structures to think deeply about how inscriptions have engaged heterogeneous groups who sometimes directly compete with one another and how these groups have developed these inscriptions to facilitate cross-collaboration. Several key studies—particularly studies that have examined how society can reduce behavioral health problems—exemplify work that has taken such an approach (Haggerty et al., 2017; Uehara et al., 2013). Both Haggerty et al. and Uehara et al. focused on identifying the multivocal inscriptions that sought to 1) reduce the incidence and prevalence of behavioral health problems among children, adolescents, and young adults by 20 percent and 2) reduce the incidence of racial and socioeconomic disparities in behavioral health problems by 20 percent in a decade (Haggerty et al., 2017; Uehara et al., 2013). These authors investigated many incommensurate interests in order to understand the complexity of achieving the aforementioned two challenges. In doing so, they uncovered the many diverse meanings attached to this challenge from business owners, elected officials, religious leaders, philanthropists, and other public systems officials who 1) controlled resources for advocacy efforts at federal and state levels and 2) participated in increasing public awareness and support for evidence-based programs, advocacy for parents, federal reimbursement, and engendering community awareness. They highlighted how various stakeholders developed a key multivocal inscription: the “communities in action” (CinA) program that focuses on reducing behavioral health problems across socioeconomic strata by helping families move toward safer environments and empowering and connecting families to tools that increase options for self-determination, financial independence, and healthy choices. CinA, as a multivocal inscription, brought together multiple stakeholders to create numerous resources for both job readiness support and education on financial independence.

The above research highlights the need for further investigation into the role of intersubjective meaning in a project with broad social justice-focused implications (Haggerty et al., 2017, p. 145). Some may perceive such an investigation as a stakeholder analysis (Goodpaster, 1991), but, where a stakeholder analysis investigates stakeholders and the interests that place competing demands on a firm to arrive at an obligation, a multivocal inscription analysis focuses on leading actors’ activities and how they accommodate heterogeneous groups’ varied interests and inculcated language to arrive at inscriptive forms. With respect to IS, one can easily envisage how multivocality and multivocal inscriptions emerge through IS and IS artifacts.

2.2 Distributed Experimentation

To perform distributed experimentation, one conducts multiple experiments from a problem-driven perspective where one does not always know meaning prior to taking action (Ansell, 2011). At distributed experimentation's core rests the pragmatist logic of abductive thinking where one begins with an observation and then seeks to find the simplest and most likely explanation (Peirce, 1932). Charles Peirce referred to pragmatism itself as the "logic of abduction" (Peirce, 1998, p. 239) in providing the pragmatic maxim as a logical rule: "Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object" (Peirce, 1878). One conducts distributed experimentation to pin disputes about knowledge, principles, and values to experiential particulars, focus attention on action and consequences, and subject action and consequences to continuous revision (Ansell, 2011, p. 11). The idea of distributed experimentation also bears an inextricable relationship to multivocality and the constitutive nature of actors who facilitate it. Peirce (1998) himself noted pragmatism's direct relationship to speculative grammar, its conditions for meaningfulness, and a logical critique of arguments in their various modes as part of interplay between various modes of inquiry. Through a process of conducting local experiments, learning from them, and changing as a result, distributed experimentation can help researchers in capturing the evolutionary-learning process by understanding how received knowledge, principles, and values undergo constant revision that engender "small wins" (Weick, 1984) while allowing unsuccessful efforts to be abandoned (Ferraro et al., 2015).

For researchers, distributed experimentation acts as a frame to uncover leading actors' and other role players' "architecture of attempts". Several studies highlight how one can use distributed experimentation. For instance, in their study on socially responsible investing (SRI) in mainland China, Yan, and Ferraro (2012) uncovered how actors used distributed experiments to foster SRI amid competing interests in the free market. Specifically, they employed temporal bracketing (Langley, 1999) to illustrate two major experimentation stages: the first stage where foreign institutional entrepreneurs attempted to introduce SRI into China, which had little success in mainland China but initial success in the Hong Kong markets; and the second stage where state-mediated fund management firms advertised SRI derivatives as investing in "sustainable development", a distributed experimentation tactic consistent with current efforts to reduce greenhouse gas emissions in the United States (Ansell, 2011), which had waning success in Hong Kong but sustained success in mainland China. In another example, Etzion et al. (2017) described local experiments that helped the Global Reporting Initiative (GRI) develop transnational principles of global sustainability reporting. Specifically, groups from different countries learned about sustainability reporting by doing the reports, and, when users grappled with what these reports should encompass, they developed matrices that they then circulated among GRI participants. Over time, however, these artifacts began to lose their relevance, and, thus, the GRI conducted further experiments. These efforts eventually led to consistent accounting standards for sustainability initiatives and the International Integrated Reporting Council's (IIRC) formation. Etzion et al. described this distributed-experimentation process as leading to additional precision and, in particular, as a way to advocate a much tighter link between financial and sustainability materiality than ever before (Etzion et al., 2017). We discuss these examples to show that local, distributed experiments on broad societal-scale issues can drive evolutionary learning (Ansell, 2011). Furthermore, they show that lower-cost, lower-energy, and/or less controversial solutions can potentially chip away at societal-scale challenges. Distributed experimentation highlights the ability of agents and their networks in situ to identify and improve on the reciprocal strength between knowledge and problem-solving capacity over time through "continuous inquiry, reflection, deliberation, and experimentation" (Ansell, 2011, p. 5; Padgett & Ansell, 1993).

2.3 Participatory Architecture

The participatory architecture strategy comprises the structured and reflexive engagement rules that allow diverse and heterogeneous actors to interact constructively over prolonged timespans. Rules are goal oriented and foster constructive interaction in working towards solutions, or more problematics, to overarching issues. Engagement over time is perhaps the most difficult task for robust action (Fligstein, 2001; Liefer, 1991), and participatory architecture is the robust action strategy focused on overcoming it. Multivocal inscriptions act as symbolic facilitators that bring together heterogeneous groups, and distributed experimentation can establish a foundation for participatory architecture. Moreover, these structures contain processes that facilitate reflexivity that, in the pragmatist tradition, call for critical and self-conscious reflection through learning when people can scrutinize their own common sense (Ansell,

2011; Miettinen, 2000). While reflexivity does not guarantee participatory architecture, researchers have theorized it to facilitate engagement and give participants a chance to appreciate the choices they make from experimenting that can shape their competency as they pursue a common goal, which creates a means to shape consequent ends to sustain engagement for future experiments (Ansell, 2011).

Some studies highlight the role of participatory architecture in bringing together diverse groups. Callon, Lascoumes, and Barthe (2009) write about a controversy in France about disposing radioactive waste. They elucidate how hybrid forums, which involved various local and departmental councilors, mayors, experts from the French Atomic Energy Commission, and citizens who lived near potential waste sites, served to help assuage government suspicion on the part of citizens through using controversy as a mode of evolutionary learning and exploration. Callon et al. found that controversies were seen as a way to explore the identities and motives of actors, foster a deep exploration of problematics, and understand the universe of conceivable options and solutions (Callon et al., 2009, p. 35). Thus, controversy resulted in exchanges between experts and citizens where a discovery of mutual developing, and malleable identities led to them to take each other into account and transforming themselves in the process. The point of this case and why researchers have used it as an exemplar in robust action research (see Garud & Gehman, 2016; Ferraro et al., 2015) is that it embraced an antithesis of commensuration in its use of controversy to foster reflexivity and engage a diversity of experts, politicians, and engaged citizens over prolonged periods of time (Bucchi & Neresini, 2008).

3 Pragmatism, Robust Action, Social Justice, and IS Research

3.1 The Pragmatist Link to Robust Action

Contemporary research on robust action uses pragmatism as its philosophical base (Gehman et al., 2018; Etzion et al., 2016; Ferraro et al., 2015). The rationale is that pragmatism, as a theory of action (Whitford, 2002), recognizes that means and ends are not always clearly determined prior to action with respect to the inherent complexities, uncertainties, and evaluativities that exemplify societal-scale challenges (Ferraro et al., p. 369) and that and both means and ends must be accounted for over time. While it is important to know if there has been any progress made on the ends, the means represent selections from among a range of possibilities, which in itself is a result that must be accounted for.

Indeed, numerous contemporary pragmatist works have given primacy to 1) multivocality's nature as interwoven with contingency and plurality and its notion of "truth-as-created (not discovered)" as important for human interpretation (McDavid, 2002, p. 303), 2) pragmatism's nature as a theory of active experimentation where, "rather than being driven by a predetermined set of preferences and beliefs, they hypothesize chains of means and ends to choose a course of action, and later adjust their actions as they observe the outcomes they generated" (Ferraro et al., 2015; Whitford, 2002), and 3) participatory architecture's nature as imperative to an evolutionary-learning process where individuals and communities can "improve their knowledge and problem-solving capacity over time through continuous inquiry, reflection, deliberation and experimentation" (Ansell, 2011, p. 5).

3.2 Pragmatism and Social Justice

Pragmatism also finds its roots in social justice. Rooted in Ralph Waldo Emerson and originally articulated by Charles Peirce, William James, and their heir, John Dewey, pragmatism as a philosophical concept arose from the social injustices felt in America at the turn of the 20th century when rising American imperialism (Malachuk, 2000), American exceptionalism (Albrecht, 2012), and a nascent industrial order had begun to change the American way of life as the country rapidly shifted from agrarian centric to urban industrial and from entrepreneurial capitalist to monopoly capitalist (West, 1989). During this time, people experienced social justice issues such as racism, classism, and wealth distribution as increasingly consolidated sources of wealth and power came to prominence, which inextricably drove a wedge between the rich and poor and an even larger wedge between white and non-white individuals. For example, even though real wages increased for a majority of Americans during this period, depressions, drastic economic swings, and panic also occurred as, even though national wealth greatly increased, 13 percent of Americans still lived in poverty (Westbrook, 1992; Coughlan, 1975).

As such, pragmatism became a project to develop a philosophy that reflected America's social injustices. It was Charles Peirce, William James, Oliver Wendell Holmes, and others[1] who conceived the concept and John Dewey who matured it. Dewey witnessed many social injustices during his lifetime, which led him to become a social justice activist. For example, he devised a plan to sell "critical intelligence" via radical journalism, became associated with humanitarian efforts to assimilate and acculturate immigrants into the American mainstream, and exercised leadership over the expanding American pedagogical profession through practical examples and writings (Martin, 2003). To Dewey, "there is no need to beat about the bush in saying that democracy is not in reality what it is in name until it is industrial, as well as civil and political" (Dewey, 1969). Dewey's social justice-focused intent pervaded through the work of mid-century pragmatists as philosophers such as Reinhold Niebuhr used pragmatism to search for a form of social justice that promoted civil disobedience as a strategy (Dibble, 1977), particularly to expose the plight of African Americans as "they could never free themselves by simply depending on the "love and goodness" of the white man's heart" (Niebuhr, 1957, p. 19; Niebuhr, 2013). Moreover, the link between social justice and pragmatism extended to contemporary work as pragmatist philosophers such as Richard Rorty discussed pragmatism as a moral and political weapon (Rorty, 1999, p. 139; West, 1989) where ideas, words, and language represented tools to cope with a world as opposed to mirrors that copy the real (Rorty, 1979), knowledge represented nothing more than relations to propositions rather than privileged relations to the objects certain propositions concern, and a wholesale rejection of the mind as a sphere of inquiry (West, 1989). Rorty believed that pragmatism represented one of the only philosophical frames with enough teeth to deal with social justice issues as he spoke extensively about its rhetorical power to confront human suffering and increase equality (Rorty, 1999).

Without question, our contention that social justice is the proverbial weft through the tapestry of the pragmatist tradition is certainly subject to conflicting interpretation amongst a complex history of the origins of an extremely wide-ranging philosophy by a diverse group of historically prominent individuals. However, we further this contention in looking at many of pragmatism's contemporary conceptions. It can be seen in the pragmatist-feminism discource that uses pragmatism as a base to critique feminist perspectives on diversity, democracy, social action, and education (Whipps, 2004; Seigfried, 2002; Rorty, 1993; Fraser, 1995, 1989). It can be seen through Cornel West's "Prophetic Pragmatism" in articulating a specific expression of pragmatism that embodies the Afro-American experience (West, 1999; West, 1989, p. 211; Dantley, 2005; Denzin, 2012; Wood, 2000). And, even more recently, it can be seen in the work of Christopher Ansell (Ansell, 2011) who uses pragmatism to elucidate the viewpoint of democratic governance through evolutionary learning as a matter of public importance. Given this, we theorize that robust action, a framework based on a philosophy that is rooted in social justice, is suitable to investigate societal scale issues, such as social justice, that emerge through IS and IS artifacts.

3.3 Pragmatism and Information Systems Research

We are certainly not the first to envisage pragmatism in IS research. IS has often looked to pragmatism for philosophical guidance (Goles & Hirschheim, 2000). For example, researchers have depicted pragmatism as the basis for action research (Baskerville & Myers, 2004), as a root motivation for design science research (Hevner, 2007; Iivari, 2007; Hevner, March, Park, & Ram, 2004), as a philosophical base to accompany interpretivist research (Goldkuhl, 2012), in addressing the gap between theory and practice (Ågerfalk, 2010; Ågerfalk, Goldkuhl, Fitzgerald, & Bannon, 2006), and in fostering a discourse about the choices researchers make about the long-term impact that their research has beyond a single site and topic area (Constanides, Chiasson, & Introna, 2012). Pragmatism has been an important part of IS discourse, and we contribute to that discourse in explicating the robust action framework as a useful tool to enact pragmatism in the IS field.

Moreover, whereas an orthodox research perspective may steer researchers towards a single problem with a solution that comprises a nucleus of dependent variables, a robust action approach fosters diverse perspectives, engenders a "small-wins" experimental approach, and engenders reflexivity to allow for actors to learn and change by scrutinizing their own habits and actions (Weick, 1984). In the spirit of Dépelteau (2015, p. 48), pragmatism helps one in "discovering 'social laws', revealing the 'pure forms' of the social, [and] finding 'infrastructures' or 'mechanisms' behind or beyond 'conjectural' events", which, under other paradigms, is "simply impossible and out of place".

[1] We elaborate on the social justice roots of American pragmatism in Appendix B.

4 Getting off the Fence: A New Act for IS Research

We consider it a given that researchers conduct large swaths of contemporary discourse through IS and IS artifacts. As a result, both social injustices and advances in social justice issues occur over these mediums. In this paper, we describe robust action as a framework that researchers can use to investigate issues that are inextricably complex, evaluative, and uncertain. Rooted in pragmatism and designed for research on such issues, the robust action framework drives the pragmatist ideal of a tight coupling between meaning and action through observations of reflexive processes. Moreover, in a sidestepping of commensuration—the idea that one can compare different entities using a common metric (Espeland & Stevens, 1998)—we offer a new perspective about what it means to engage in a "research stream" (Myers & Klein, 2011; Hughes & Sharrock, 1997)—in particular, a perspective where common metrics are eschewed and multiple orders of worth are valued.

To be clear, studies exist in IS and related fields that measure perceptions of social justice, but it does so mainly in the context of individual and group perceptions of justice in business organizations (Bernardi, Constantinides, & Nandhakumar, 2017; Myyry, Siponen, Pahnila, Vartiainen, & Vance, 2009; Peristas & Tarabanis, 2009; Joshi, 1989; Hirschheim & Klein, 1994). In contrast, little research has chronicled advancements in social justice (Karasti, 2010; Agarwal, Animesh, & Prasad, 2009; Chatterjee, Sarker, & Fuller, 2009) or confronted social justice issues directly (Stahl, 2007; Reimers, 1996). Indeed, IS research remains fledgling in its efforts to move beyond the sociotechnical approach, which helps one examine the many issues of technological work in organizations but struggles to help one conceptualize trans-organizational work arrangements (Winter, Berente, Howison, & Butler, 2014). However, there are indications the IS field is beginning to engage in researching these issues. Accordingly, we advance a framework to engage in such issues in this paper. IS researchers have voiced an interest in researching policy (Majchrzak & Markus, 2013; King & Kraemer, 2019), IT in a global context (Walsham, 2001), the role of gender (Trauth, 2013; Reid, Allen, Armstrong, & Riemenschneider, 2010), and an increasing awareness of social justice vis-à-vis the "digital divide" from healthcare (Agarwal et al., 2009; Norris, 2001), regional (Rooksby, Weckert, & Lucas, 2007), philosophical (Stahl, 2007), and global justice perspectives (Hongladarom, 2007).

4.1 Putting Robust Action to Work in Information Systems Research

In Sections 1 through 4, we articulate robust action and its roots. In this section, we provide an example of social justice research that uses robust action. The research forms part of a project that investigates how a new technological development played a role confronting the social justice issue of "food justice" (Adams & Bell, 2016; Elmes et al., 2015; Pimbert, 2009). We discuss the research in more detail below.

4.1.1 Research Description

In speaking with a local restaurateur, the first author learned that the restaurateur also participated in social entrepreneurship (Leadbeater, 1997) or, more specifically, in creating a cryptocurrency that would encourage local food production and consumption and, thus, promote a food economy that relied less on overseas imports and more on domestic production. The restaurateur had a particular interest in creating this cryptocurrency because:

1) The restauranteur lived on a Pacific island that imported 90 percent of its food.
2) The island imported heavily processed food, and, although such food generally costs less than non-processed food (Krystallis & Chryssohoidis, 2005), numerous government reports have correlated processed foods to obesity (Inoue, Qin, Poti, Sokol, & Gordon-Larsen, 2018).
3) A government report revealed that, if a disaster happened to a country that the island depended on for its food supply, it would experience a food shortage after roughly only two weeks.

In response to these concerns, the restaurateur created a new business. In speaking with the restaurateur, the first author expressed that he had thought of two alternatives for designing the company. The first alternative was to create a non-profit that would bring in regional leaders as board members and focus on developing statistical indicators that would describe the problem. The restaurateur envisaged that creating a non-profit would lead to a state commission on food sovereignty that could pass legislation. The second alternative was to leverage IT and massively available amounts of computing power and open source libraries to create a specialized form of cryptocurrency (Antonopoulos, 2014), a mobile application,

and Web platform to incentivize consumers and local businesses to take part in an economy that, from a bottom-up perspective, would stimulate an increase in domestic food production and consumption and disrupt the island's globalized food economy and foreign reliance. The restaurateur chose the second option. He named the effort "Healthies" and, in piloting the technology, focused on stimulating consumers, farmers, grocers, and employee-benefits providers to participate in it by:

- Encouraging farmers to cultivate crops that a recent state government report deemed essential to support a sovereign food supply on the island.
- Encouraging grocers to stock the aforementioned crops.
- Encouraging grocers to accept the Healthies cryptocurrency.
- Encouraging consumers to use Healthies through a pre-tax employee benefits program.

The restaurateur also wanted to collect data about islanders' nutrition habits and how they used Healthies and to use such data to inform public agencies. To encourage consumers to use Healthies, the restaurateur gamified the mobile app (Thiebes, Lins, & Basten, 2014). In the app, users could accumulate points that they could use as a credit toward real-world purchases. Further, when they made approved purchases, they could see a live feed that showed how many points other (de-identified) users had earned and the "Healthies-approved" products they purchased. The restaurateur pre-selected the Healthies-approved products. They typically comprised products concomitant with the state's government report and crops the restauranteur thought to benefit the local food economy and the local population's health. To further the game idea, when purchasing an approved product, users would earn a discount on future purchases; however, they would only accumulate further points if they bought Healthies-approved products. Some Healthies-approved products included locally grown leaf greens such as kale, collards, chard, and lettuce and locally produced (or caught) protein sources such as tofu/tempeh, fish caught or farmed in local waters, and poultry from local farms. Before the pilot, the restaurateur had established links with local grocers, local farmers, and a local high school system where he could access employee benefits administrators and a pilot group of consumers. His effort proved critical to his ability to employ the pilot since he could gather over 100 employees to participate in it.

The first author played an active role in assisting the restaurateur design the pilot. First, he helped the restaurateur structure the pilot according to the aforementioned groups: consumers, farmers, grocers, and employee-benefits providers. Second, he helped limit the pilot to a three-week timespan. Given that the average consumer visited the grocery store roughly 1.6 times per week, over a three-week span, each employee would have roughly 13 interactions with the app and the ability to purchase Healthies-approved goods at a grocery store. Third, he determined that, to stimulate individuals to use app, US$50 of Healthies credit could serve as sufficient starter credit. Collectively, we refer to the first author, the restaurenteur, and two of the first author's students as the "research team". We depict the number of participants in each group in Table 1.

Table 1. Groups and Number of Participants

Groups	Number of participants
Consumers	109
Farmers/farming organizations	6
Grocers/grocery store organizations	4
Employee-benefits providers	1

The pilot began in October, 2016. Before the pilot, the restaurateur and his employees developed a beta version of the app and put it through an initial round of functional testing. Also, before the pilot, the restaurateur and researcher worked with several local grocery stores chains and other local producers, such as farmer's markets, to establish the terms of the Healthies pilot, the discounts that it would offer, and the technology that would capture the discounts. Given that local grocery stores could not easily change their point-of-sale (PoS) systems, the restaurateur worked with them to add a unique key to capture the checkout event as a Healthies purchase by scanning a QR code. The QR code labeled Healthies purchases so that, every night during the pilot, research team members could add credits to the participants' accounts. While this approach allowed the restaurateur to get food producers involved in the pilot, it did have one detractor: the restaurateur could not provide an immediate discount for subsequent purchases. Instead, participants received a Visa gift card after the pilot concluded.

Before the pilot, members of the research team distributed a link to download a beta version of the app where they would register and receive the initial US$50 worth of credits on their account. Instructions were sent along with the link. Instructions included information about participating stores and to shop for groceries at their normal frequency but to consider the Healthies-approved products listed on their phones. Behind the scenes, the researcher worked each day to get the data from each store/vendor and sort through transactions to assign credits to user accounts. For the pilot, the research team collectively determined that, for every US$1.00 a user spent on a Healthies-approved product, participants would get 50 points that would result in a US$0.50 credit that they could use as regular currency at the grocery stores (a 1:0.50 ratio). However, as we mentioned above, participants would continue to accumulate points only if they continued to purchase Healthies-approved products. Research team members decided the ratio based on what food vendors would typically accept, but it also fell in the range of what constitutes a healthy sales promotion (Blattberg & Neslin, 1990). Members of the research team updated participants' accounts nightly, and data feeds on the app's cover page continuously crawled the data and updated dynamically. When the experiment concluded, members of the research team gathered any remaining data from food vendors and distributed gift cards that represented any remaining points to consumers through their employee-benefits providers. Also, the research team conducted four hybrid forums to bring the different participant groups together. Then, after the forum series concluded, the conversations shifted to online forums that remained active in debating topics relating to the Healthies application and the state of food sovereignty on the island several months after the experiment.

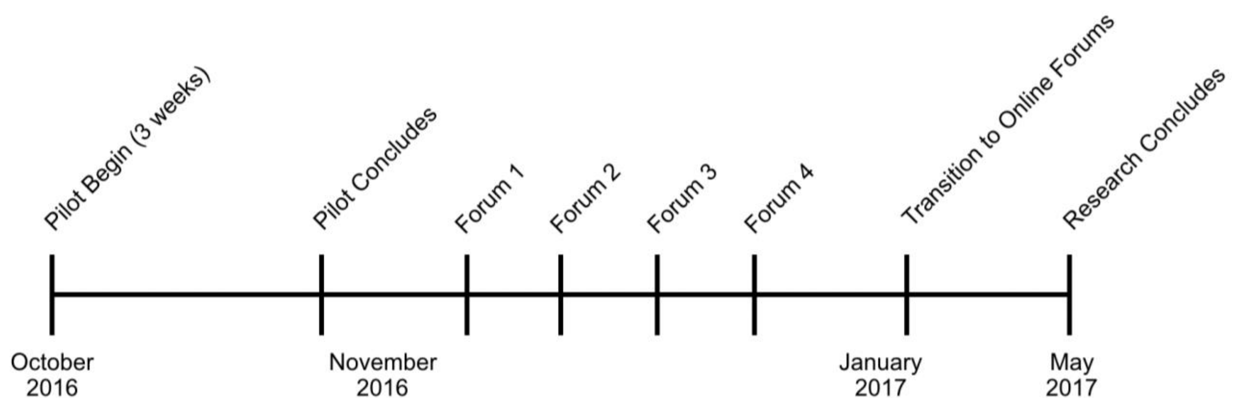

Figure 1. Research Timeline

We used the robust action framework to analyze the experimental data collected during the pilot and after the pilot concluded. Specifically, we used the robust action framework to understand how the IS accommodated heterogeneous groups' interests, the experiments conducted during the pilot, how feedback informed and alter experimental plans, and how these experiments crafted the mechanisms to sustain participation over time. Accordingly, the following questions guided our analysis:

1) **Multivocal inscriptions**: how did the restaurateur architect the Healthies technology to accommodate grocers', farmers', consumers', and employee-benefits providers' diverse motivations to stimulate choices concomitant with a locally sustainable food supply?
2) **Distributed experimentation**: what experiments could one undertake to engender participation in the Healthies economy to reveal how people use the Healthies system, multiple heterogeneous groups' goals, and how the system may need to change as a result?
3) **Participatory architecture:** what mechanisms did the restaurateur use to engender heterogeneous groups to provide feedback and continuously participate in the Healthies system over time?

In Sections 4.1.2 to 4.1.5, we demonstrate how the three robust action framework strategies (i.e., multivocal inscriptions, distributed experimentation, and participatory architecture) helped explain how Healthies could advance the state of a social justice matter. By analyzing the pilot, we detail how the restaurateur and his new company gained small wins to engender food sovereignty. Specifically, we delineate how a mobile app with embedded currency and a gamified interface affected a community's dietary and economic choices and how employee-benefits administration could play a role. In using the robust action framework in our research, we eschewed the desire to inquire about whether or not the

restaurateur obtained success but instead focused on understanding the utility of a multivocal inscription in context, the distributed experiments that stimulated changes, and the participatory architecture that could sustain heterogeneous groups and change a local economy. Moreover, we focused on understanding these strategies not as separate but complementary and theorized on the potential scaling effects the IS could have (Etzion et al., 2016).

4.1.2 Multivocal Inscriptions

The consumers, farmers, grocers, and employee-benefits providers that participated in the Healthies pilot each had different motivations. Consumers saw participation in the pilot as a way to affect their health. Farmers saw participation as giving them the potential to sell certain crops in grocery stores that consumers would likely buy consistently. Grocers saw participation as having the potential to increase the likelihood that consumers would enter their store and purchase Healthies-approved items. Finally, employee-benefits providers saw the potential to have a healthier workforce that missed fewer days due to illness. However, these incentives had little to do with creating a more food-sovereign island. To accommodate these different propensities and advance his goal, the restaurateur used a message about food sovereignty for the island as a narrative and started holding seminars about the island's reliance on foreign food supplies in two different locations: the consumer group's workplace and United Food and Commercial Workers (UFCW) union meetings. The restaurateur also had a booth at a local farmers market where he distributed information about the dangers of the island's external food reliance. In essence, the narrative about food sovereignty, which he tailored to different audiences, catalyzed an inscriptive force that he used to engender action in his cause's direction. Consequently, his narrative could remain flexible and act when he gauged an interest while allowing different groups' motives to stay as they were.

The Healthies IT app explicitly and implicitly embedded the multivocal inscriptions described above. The application had a link to an "about" section that contained PDF documents about food sovereignty. Perhaps more impactful, the app played host to the Healthies game that incentivized the consumer, grocer, and farmer groups to consume and produce Healthies-approved products and displayed messages relating to food sovereignty such as "Congratulations! You just helped [name removed] become more food independent!". To lower barriers to entering the game, the restaurateur also worked with the employee-benefits provider to have Healthies points loaded into the consumer's account pre-tax. In providing the points pre-tax, it gave employees a 24 to 26 percent discount (Financial Finesse, 2018) to purchase Healthies-approved foods—an attractive discount given that organic produce cost considerable more than processed foods on the island (Consumer Reports, 2015) and constituted consumers' most frequent and most expensive purchases (Smith, Ng, & Popkin, 2013).

The Healthies idea arose from a position of flexible opportunism. The restauranteur was active as a food sovereignty activist, appealing to groups with diverse interests to coordinate around a common cause without them ever having to alter the very vantage points that would potentially engender action to advance the state of a social justice issue. Moreover, the messaging crafted by the restauranteur was effective in creating what we have previously described as a "two-way flow of multivocal discursive formation". In one direction were the statements about food sovereignty that was agnostic to the competing interests of the groups. In the other direction was the information that the employee-benefits providers, farmers, and grocers took up that led these groups to engage in the Healthies pilot.

4.1.3 Distributed Experimentation

The research team conducted distributed experimentation with the different groups using the Healthies mobile app and Web interface. Experiments were "distributed" as each group had a different user experience. Consumers mainly dealt with the "gamified" mobile application where farmers and grocers used the Healthies Web interface to receive data about consumer behavior. The experiments were also reflexive as, in conjunction with the pilot, group members participated in three question-and-answer (Q&A) sessions to provide feedback to the restaurateur. The Q&A sessions centered on user experience, and the feedback helped the team make rapid modifications to the Healthies platform. The Q&A sessions also discussed what it would take to get group members to continue using the platform. For example, did consumers use the platform due to their health or to pay less for food? What data drove the grocery stores to use Healthies and the platform beyond the pilot? What motivated farmers to produce crops that came from the Healthies-approved list? And what key indicators motivated an employer to participate? Figure 2 illustrates the experimentation's timeline.

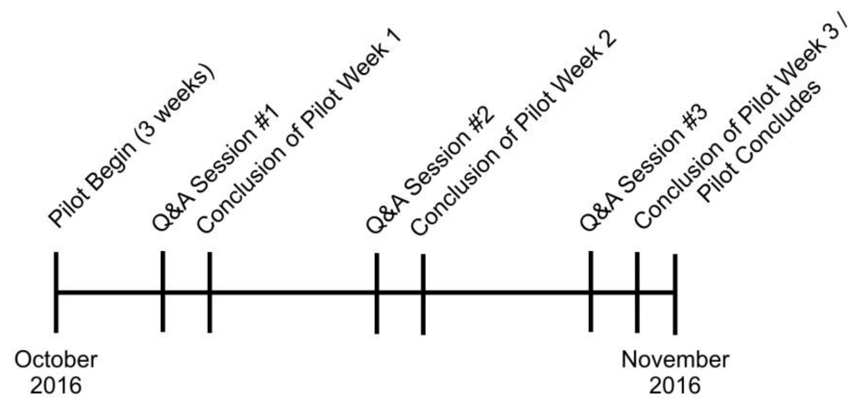

Figure 2. Distributed Experimentation Timeline

Each group participated in the Healthies system for various reasons. The consumer group participated because of finances and health. They wanted to be healthy but expressed financial limitations in their ability to purchase local, organic food. Grocers participated in the system due to data indicating consumer willingness to buy Healthies-approved products—principally perishable goods, such as produce, that typically have low margins and a short shelf life. Farmers participated in the system due to data that reassured them of the sale of Healthies-approved goods that would lead them to produce crops with lower margins but would help increase food sovereignty on the island. Finally, employers participated in the system for productivity reasons in that a healthier workforce would mean fewer sick days.

To bring these needs to the fore, the restauranteur changed the technology in several ways. For the consumer group, the restauranteur discovered that less than 20 percent of participants redeemed Healthies points after making initial purchases using the starter credits on their account. Indeed, the system did not provide a strong enough financial incentive to make Healthies-approved products competitive in price with equivalent non-organic, foreign-supplied products. As a result, the restauranteur increased the dollar-to-point ratio from 1:0.25 to 1:0.50. For the grocers during the pilot, the research team gathered additional data to contrast the average frequency participants purchased perishable goods in the pilot with the average frequency with which consumers purchase perishable goods sales in the US. The restaurateur also added the margins on the Healthies-approved products to a dashboard for farmers so they could compare them to the margins on the typical products they produced.

The distributed experimentation strategy highlights the value of diverse incentives for differing groups and how one can use IT to embody these incentives. Across the experiments—from the pilot to the repeated focus groups that the research team designed to have a direct impact on the technology during the pilot—the different groups had diverse incentives. The restaurateur had a strong drive to conduct experiments that would increase how much the various groups used Healthies. Consumers participated in Healthies to improve their health and pay less on products. Grocers participated to find innovative ways to reduce waste of stocked perishable goods. Farmers participated to produce goods they knew that grocers would consistently buy. Employee-benefits providers participated to improve employees' health so they would be at work more often. The point of this is twofold: 1) diversity was advantageous in increasing the usefulness of the platform and 2) the local, distributed experimentation that occurred served to evolve the technology to meet the groups' needs and create more conversations that would potentially lead to more technology evolution.

4.1.4 Participatory Architecture

While distributed experimentation and participatory architecture were closely intertwined, the Q&A sessions that facilitated technology changes during the pilot to accommodate the users' diverse interests laid the foundation for their ongoing participation in Healthies as both a technology and a corporation that advanced the island's food production capacity. However, the Q&A sessions during the pilot still treated the groups separately with little interaction between them. As such, they scarcely discussed food sovereignty and the island's ability to supply its residents with locally produced, healthy, and more affordable food than what already existed. Accordingly, the first author suggested to the restaurateur that, in conjunction with the researcher, the Healthies pilot continue through various hybrid forums (cf. Callon et al., 2009). When the pilot concluded, the research team conducted four separate forums. Each had a

guiding theme that appealed to each group but included participants from all groups. For the consumer forum, discussion topics centered on consumer choice and the factors to consider when living on an island far away from another country. For the grocer's forum, discussion topics centered on efficient distribution channels to stock local goods and how to drive purchasing consistency for perishable foods. For the farmer's forum, the discussion centered on the conflict between government subsidies to plant certain foods and the foods on the Healthies-approved list.

Although participants engaged in a pilot about an issue affecting their island state, the hybrid nature of the forums was evident given the unique interests of each group. Sessions began with the themes illustrated above but quickly migrated to discussions about Healthies and even the broader social issues the restaurateur was targeting. We listened to impassioned exchanges about the politics of affordability, food sovereignty, what to produce to create a food-sovereign island, and the subsidies that keep farmers growing certain crops and not others. We also found a common dialogical thread across the forums about how Healthies could play a valuable role in advancing the state of food sovereignty despite government influences such as subsidies.

The forums also contained discussions about changes to the Healthies platform. For example, during the pilot grocers were inconvenienced because they could not see information in real-time or view any data on any other form factor other than a desktop or laptop computer. Moreover, the consumer groups also complained that they could not see data from the mobile application on anything but their phones because, for the pilot, the restaurateur had hired someone to develop the interfaces in the quickest way possible as opposed to using libraries that could easily translate between form factors. This developer wrote the mobile application in Objective-C and ported it to Android using the objc2j libraries and developed the Web interface using simple HTML, JavaScript, and CSS. To satisfy users' requests, the restaurateur went back to the developer and requested that he make a single interface for all platforms. The developer then recoded the interfaces using Twitter's open-source Bootstrap libraries. Fortunately, the developer developed the platform's architecture such that one could interface with it as an API using the MEAN stack (MongoDB, ExpressJS, AngularJS, and nodeJS), so the developer only needed to make the same API calls with the new interface. Figure 3 illustrates the Healthies platform stack.

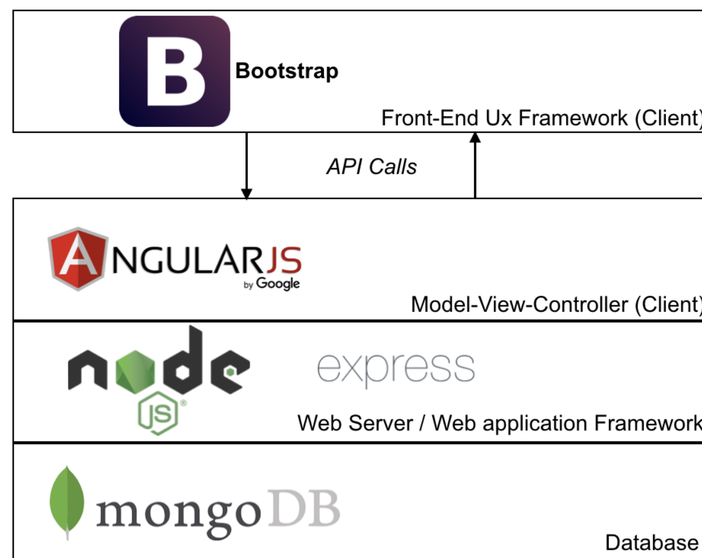

Figure 3. Healthies Platform Stack

After the four forums concluded, the research team promoted the idea of continuing the discussion in both public and private online forums. The private forum took place using the Slack messaging application, while the public forum took place in Facebook groups. The research team considered the private forum important for conversations to continue with people who had already established face-to-face dialog. In contrast, the research team regarded the public forum as critical for including outside opinions. The forums created continuous forms of participation and gave participants the ability to discuss their thoughts about the project. The forums that took place, both in-person and online, also served to increase reflexivity as conversations led to further modifications of the mobile application and Web platform. According to

Ferraro et al. (2015), reflexivity distinguishes pragmatism from mere utilitarianism and consequentialism as actors learn by scrutinizing their habits and actions and changing it in the process. Moreover, the simple fact that what participants said mattered in terms of rapid technological changes sustained engagement---a considerable challenge to implementing robust action (Ferraro et al., 2015, p. 375).

Through the hybrid forums conducted after the pilot phase and the online forums created after the in-person groups, a participatory architecture came clearly into focus to allow diverse and heterogeneous actors to interact constructively over a prolonged period. In our research, hybrid forums began with the structures that the restaurateur initially put in place but then evolved as participants started asking new questions that led the project to bring the different groups together. Hybrid forums allowed for further and ongoing reflexive participation as participants came to understand what the other stakeholder groups experienced. Furthermore, as the researcher and restaurateur analyzed the data to derive thematic representations in each phase, they worked in collaboration to arrive at new discursive and technological structures to advance Healthies and potentially the island's food supply's long-term sovereignty.

4.1.5 Summary

The above case depicts how one can use the robust action framework in IS research. In particular, it shows how researchers can examine the complex, uncertain, and evaluative nature of the seemingly intransigent social justice issues that we see today in a way in which they can measure progress and gain knowledge. On the island where we conducted our research, food dependence represented a social justice issue. Indeed, the islanders also knew about this issue, and it played a part in engendering their participation in our research.

We illustrated the robust action framework—a framework that can accompany traditional research approaches. For example, a study of multivocality by its very nature seeks to sustain multiple narratives and can accompany the underpinning ideal of commensuration that one finds in positivist, interpretivist, and action research (Habu, Fawcett, & Matsunaga, 2008; Espeland & Stevens, 1998; Padgett & Ansell, 1993. A study that uses distributed experimentation can help one sustain multiple narratives and retain a degree of separateness that can accompany the implicit goal of central interpretations (Kim, 2008). In sum, the robust action framework can accompany traditional research approaches by working to sustain multivocality, vis-a-vis distributed experimentation, and participatory architecture by characterizing distributed authority, allowing for multiple justifications for problems, and sustaining heterogeneous local contexts (Stark, 2009; Boltanski & Thevanot, 2006; Espeland & Stevens, 1998; Padgett & Ansell, 1993).

At the same time, one can also see the robust action framework as distinct from traditional research frameworks. Unlike positivist, interpretivist, or action-oriented research, robust action research rejects the idea of commensuration (Ferraro et al., 2015, p. 381) and draws attention to the possibility that incommensurability could even be an asset to cultivate and highlight. Moreover, in the pragmatist tradition, it embraces the concepts of evolutionary learning and reflexivity, which the "spectator" orthodoxy of traditional research lacks (Dewey, 1938). In this sense, social justice does not represent a construct that one can measure or a problem that one can solve. In contrast, it represents a moving target, which means traditional frameworks cannot adequately study societal-scale social justice issues.

5 Conclusion

In this paper, we explicate the robust action framework as a framework to undertake research on societal-scale issues and possibly advance the many calls for IS research to move beyond the "organizational container" (Winter et al., 2014). We contend that robust action differs from traditional research frameworks in that it investigates "small wins" in incommensurate contexts.

We contend that researchers often discuss social justice and other societal-scale issues in contemporary society without considering the marketplace of ideas that constitutes IS research. Thus, we present a framework based on pragmatism that comprises three strategies, which we demonstrate can help one guide a successful IT research program on social justice. Accordingly, we contend that robust action and, in particular, incommensuration and small wins can have a significant impact on future IS research. For example, understanding predictive policing's mechanics would represent a small win in understanding the long-term social pressures that minority groups experience. Understanding state-sponsored Internet trolling's mechanics and how it pollutes online political discourse would represent a small win in understanding how democracies become destabilized. Finally, understanding food insecurity's social and economic propensities would represent a small win in understanding how people perceive food justice.

We contend that IS research—research on the ubiquitous information and systems that exist today—can and should play a critical role in confronting these societal-scale issues.

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Appendix A: Contemporary Meanings of Social Justice

Social justice represents a powerful catchphrase in discussing some of society's most challenging issues. The term came to prominence in America in the late 19th century, when, at the beginning of the industrial age, it saw use in the debate regarding the relationship between the ruling classes and the new urban poor (Barry, 2005). Since then, it has become an evolving and reflexive term that, in a broad sense, reflects the way in which human rights manifest in the everyday lives of people at every level of society (Department of Economic and Social Affairs, 2006). However, it also varies greatly by topic. As an example, on topics such as racism, sexism, or classism (Adams & Bell, 2016), the meaning of social justice can depend on who fosters a discourse, conducts an investigation, or experiments with a solution and, as a consequence, may give primacy economic, social, political, legal, technological, or other concerns. Moreover, social justice perceptions mix with culture as, for example, from a European or North American perspective, social justice bears an inextricable link to legal processes. Indeed, with a blindfold, balanced scales, and sword, Lady Justice personifies the moral and retributive force in judicial systems (Hamilton, 2005). Even further, this perspective involves the seeds of Platonic divinity and Kantian articulations that treat the "unjust" as an opposition to universal laws and justify retribution as "the use of coercion to counteract it [justice], inasmuch as it is the preservation of a hindrance to freedom, is consistent with freedom according to universal laws" (Kant, 1999).

In elucidating a framework for IS research, we became interested in how researchers have come to understand perceptions about social justice. Our interest emanated from a few key viewpoints. It emanated from a social contract perspective where that gives primacy to perceptions of a mutual agreement between two or more parties (Ackerman, 1981), and it emanated from a utilitarian perspective where ideas of justice brought forth implicitly maximize the wellbeing of "sentient entities" (Miller, 1979; Rescher, 1969; Mill, 1863). However, what pervades in our contemporary conceptions (Tyler et al., 1997; Harvey, 2010) is the combination of utilitarian and social contract perspectives that equate justice to fairness (Rawls, 1971). In particular, John Rawls declared social justice the "original position" (Rawls, 1971, p. 11) for social equality and declared the principles of social justice as those that provide a way to assign rights and duties in the basic institutions of society as they define the appropriate distribution of social cooperation's benefits and burdens (Rawls, 1971, p. 4). From Rawls' perspective, social justice represents one of society's root psychological concepts and, moreover, one that sets the basis for "the way in which the major social institutions distribute fundamental rights and duties and determine the division of advantages from social cooperation" (Rawls, 1971, p. 6).

Appendix B: The Social Justice-focused Roots of American Pragmatism

Pragmatism bears what West (1989) refers to as a prehistory rooted in Ralph Waldo Emerson's prose. As the original scholars of American pragmatism, Charles Peirce, Willam James, and John Dewey explicitly referenced Emerson as a principal source of inspiration (Menand, 2001). Emerson devoted his life to evolve a multi-faceted view of himself and to expose the social injustices of 19th century American culture, castigate professionalism in the American academe, and expose philosophy's preoccupation with epistemology (West, 1989; Thayer, 1981). At their core, his ideas concerned notions that relate to pragmatism's action-oriented and holistic nature: 1) activity, flux, movement, and energy in the inseparability between the individual and natural world; and 2) an insatiable confidence in the power of human individualism and human action (Westbrook, 1992; West, 1989; Koopman, 2006; Levin, 1999; Pollock, 1958; Carpenter, 1939). Emerson and eventually Peirce, James, and Dewey engaged in developing pragmatism to contrast European-centric philosophy, which they felt did not adequately represent the American experience. For example, while Marx saw structural modes of domination and structural transformation as occurring through class conflict, Emerson saw courageous self-reliance through creative innovation, non-conformity, and actions inconsistent with structural norms as provocation for change. In his quest to evade orthodox philosophy, Emerson sought to demote philosophy, but not devalue it, in favor of philosophy as a mode of cultural critique as opposed to one in search of certainty, truth, goodness, or beauty (West, 1989; Emerson, 2009). Emerson deeply believed in the power of human creativity, provocation as a rhetorical strategy, and the dignity and worth of human personality (Menand, 2001; West, 1989). Thus, this far-reaching and rather voracious belief in the individual's power, provocation, and personality gives pragmatism its experiential core—a yoking of opposing elements together in a tight coupling between meaning and action (Ansell, 2011).

Emerson's voracious sense of individualism also constituted the rhetorical platform to resist against the social injustices of his time. He gave primacy to individual power in one's ability to construct oneself and, in turn, construct rhetoric to influence societal outcomes. He believed strongly in the links between ideas and institutions, discourse and infrastructure, and intellectual practices and modes of social structuration (West, 1989, p. 35)—in a country that he viewed as "infected with selfishness, fraud, and conspiracy" (Bercovitch, 1975), which manifested from the "ills of market culture" (Field, 2003; Teichgraeber, 1995), and that comprised a system of "distrust, of concealment, not of giving, but of taking advantage" (Gilmore, 1985, p. 65; Emerson, 1960). The social justice components of Emerson's project called for men to "resist the dangers of commerce" (Gilmore, 1985, p. 73; Emerson, 1960) and to bring awareness to the ills of 19th century American society (the prime example being the horrendous racial injustices that occurred during the Reconstruction Era following the U.S. Civil War and after the Emancipation Proclamation of 1863). To Emerson, racism represented the most eviscerating social ill of his time as it placed limits on even the most exceptional individuals (Nicoloff, 1961; Luedtke, 1979).

The Emersonian project revealed new literary and philosophical discursive spaces in America. With regard to pragmatism, the Metaphysical Club—a group that Charles Peirce, William James, and future U.S. Supreme Court Justice Oliver Wendell Holmes founded—served as the discursive space. Peirce, James, and Holmes all acknowledged Emerson's inescapable influence in constructing pragmatism. Holmes said that "the only firebrand of my youth that burns to me as brightly as ever is Emerson" (Holmes & Pollock, 1961) in a letter to the English jurist Fredrick Pollock. Peirce (1932, p. 86) reflected on his upbringing in Cambridge in saying that:

> *Emerson, Hedge, and their friends were disseminating the ideas they had caught from Shelling, and Shelling from Plotinus, from Boehm, or from God knows what minds stricken with the monstrous mysticism of the East" and "it is probable that some cultured bacilli, some benignant form of the disease was implanted in my soul, unawares, and that now, after long incubation, it comes to the surface, modified by mathematical conceptions and trained by physical investigations.*

Lastly, James referred to Emerson as "divine Emerson" (James, 1920, p. 190) and said that "reading the whole of him over again continuously made me feel his greatness as I never did before" (James, 1920, p. 194).

Peirce, James, and, eventually, John Dewey developed pragmatism with social justice-focused intent. Peirce (1893) wrote:

> *The great attention paid to economical questions during our century has induced an exaggeration of the beneficial effects of greed and of the unfortunate results of sentiment, until there has resulted in a philosophy which comes unwittingly to this, that greed is the great agent in the elevation of the human race.*

James (1962) wrote: "society has, with all this, undoubtedly got to pass towards some newer and better equilibrium, and the distribution of wealth has, doubtless, slowly got to change". They wrangled with societal questions unique to American life (Menand, 2001) but struggled with the European-centric orthodox lens that was both disconnected from individualism and individual action and did not reflect America's current struggles. They felt disillusioned with philosophy as a transcendental mode of inquiry and with the idea that one should realize knowledge through a "spectator" (Boydston, 1991)—as something for individuals who could suitably reflect or duplicate the world without altering it and contemplate about it from a disinterested and disengaged standpoint (Kulp, 1992). To them, a disengaged model of knowing had no place in pragmatism' original articulations if it would have any difference in advancing social justice in the face of Americans' worship of business and collective and corporate activities and the period's dominant imperialist, militaristic language (James, Burkhardt, Bowers, & Skrupskelis, 1982; Peirce, 1936).

Quite simply, originally for Emerson and then for James, Peirce, and, eventually, Dewey, the work of the "disinterested and disengaged" resonated little with one's ability to transfer the work of the intellectual to social justice-focused norms and values. These pragmatist philosophers needed an intellectual avenue for cultural critique—an avenue inseparable from knowledge—where, to paraphrase Ansell (2011), experimentation, reflexivity, and discursive formation could bring about power, provocation, and personality to resist against force considered unjust (McDermott, 1976; Peirce, 1932; James, 1920; Emerson, 1888).

The Social Justice Embodied in the Activism of John Dewey's Pragmatism

Dewey's pragmatism represents an initial nexus between pragmatism's original articulations and the themes of mid-century and contemporary pragmatist works. Dewey's articulations of pragmatism had their roots in social justice. His move away from neo-Hegelianism and experimental psychology and towards pragmatism had its roots in his witnessing the social injustices of his lifetime, which spanned from the Civil War through the Industrial Age. During his life, he witnessed incredible growth as America's population exploded from 31 to 76 million, investments in manufacturing jumped from US$1 billion to US$12 billion, the annual value of manufacturing products jumped from US$1.9 billion to over US$11 billion, and factory employment rose from 1.3 million to 5.5 million (Dykhuizen, 1973). However, he also witnessed incredible stagnation and social decline as the bulk of these economic profits went to a small proportion of monopolies, trust pools, and holding companies (Woodward, 1981). In response to these visceral facets of America's realities, Dewey went from a heightened sense of political engagement to social justice activist: 1) he devised a plan to sell "critical intelligence" via radical journalism, 2) he became associated with humanitarian efforts to assimilate and acculturate immigrants into the American mainstream, and 3) he exercised leadership over the expanding American pedagogical profession through practical examples and writings. To Dewey (1969), "there is no need to beat about the bush in saying that democracy is not in reality what it is in name until it is industrial, as well as civil and political".

Rich conceptions of experience and the notions experimentation, reflexivity, and discursive formation, which parallel robust action, embody Dewey's social justice orientations. To Dewey (1969), the "organism" has to "endure" to "understand the consequence of his own actions", to experiment in "varying one's course of events", and treat "obstacles" as "stimuli to variation" and "occasions for progress" (p. 257). In this vein, Dewey's "critical intelligence" meant the employment of a "scientific attitude" (West, 1989) in problematic situations. To Dewey, a scientific attitude was not privileged to scientists but available to everyone as an instrument for describing the world (along with other instruments, such as art) and does not have as its result a mandated disclosure of the real. As a consequence of, Dewey treated epistemology as a form of cultural critical action to engage with the injustices that everyday Americans felt—one he engaged in himself as he moved outside what he viewed as "arid scholasticism" and "academic complacency" in the academe (West, 1989, p. 87) to active engagement with the events and affairs of the world (Dewey, 1917).

In sum, with pragmatism as a base, one cannot overstate Dewey's social justice-focused intent. In addition to what we discuss in this paper, along with Albert Einstein and Alvin Johnson, Dewey's philosophical beliefs set the stage for further activist roles as a leading advocate for academic freedom.

For example, he was an early member of the organization that eventually became the National Association for the Advancement of Colored People (NAACP), and, in 1939, he was elected president of the League for Industrial Democracy. Moreover, during his lifetime, he continuously engaged in numerous efforts related to women's rights, cultural freedom, and many other social justice-focused initiatives (Cochran, 2010).

Mid-century to Contemporary Pragmatism's Struggle

Dewey's social justice-focused intent pervades through the work of mid-century pragmatists. However, during this time, the academe became increasingly professionalized, and the discursive space for philosophy became increasingly limited to academic audiences (Bernstein, 1992), which made ability to produce "critical intelligence" with social and ideological contestations a practice "at the fringe". Still, mid-century pragmatists such as Sidney Hook asked if the "overlords of American industrial and financial life could accept a democratically arrived-at decision". C. Wright Mills wrote: "In a world of big organizations, the lines between powerful decisions and grass-roots democratic controls become blurred…in a politics of irresponsibility" (Mills, 2002). And Reinhold Niebuhr's early search for social justice (Dibble, 1977) promoted civil disobedience as a strategy, particularly in the plight of the African American as "they could never free themselves by simply depending on the 'love and goodness' of the white man's heart" (Niebuhr, 1957, p. 19).

Through the mid-20th century, these notable pragmatists and many others began to collectively question Dewey's implicit optimism and its underpinning of Emersonian ideals and sought to revive pragmatist roots amongst the waning powers of individuals in the face of stubborn political, economic, and racial circumstances (Kegley, 1984). However, this revival moved slowly as pragmatism as a base for social justice did not begin to experience a revival until the late 20th century.

Contemporary Pragmatism's Revival as a Base for Social Justice-focused Research

Richard Rorty, a self-styled descendant of Dewey who ushered in a new linguistic tradition in the spirit of Wittgenstein, Heidegger, and Sellars, represents the most notable contemporary pragmatist (Rorty, 1982, 1979). Rorty's work represents the second nexus: between traditional to mid-century pragmatism and current pragmatist thinkers such as Stanley Fish, Nancy Fraser, Roberto Unger, Cornel West, and many others. Rorty spent much of his academic career developing the linguistic tradition in pragmatism and, in doing so, taking aim at the philosophy departments at colleges and universities. In later works, he described pragmatism as a philosophical force "pretty well exhausted" (Rorty, 1999, p. 99) and, thus, began discussing pragmatism as a moral and political weapon (Rorty, 1999, p. 139; West, 1989). Rorty believed this anti-foundationalist and full-fledged instrumentalist view gave pragmatism "teeth" in dealing with issues of social justice. We can see as much in *Philosophy and Social Hope* (Rorty, 1999) where Rorty spoke extensively about pragmatism's rhetorical power in confronting "ways of diminishing human suffering and increasing human equality" as he proclaims "hope for social justice is nevertheless the only basis for a worthwhile human life" (Rorty, 1982, p. 204). This "hope for social justice" was also evident in Rorty's later works in advocating for a culture of global human rights and in arguing that we should teach empathy to others so as to understand others' suffering. Thus, we contend, along with others (Bernstein, 2010, 1987; Dickstein, 1998), that Rorty's work sparked a revival of pragmatist discourse as it both took aim at the academy and offered it a crucible to move philosophy beyond scholastic and epistemological aims.

About the Authors

Matthew Levy is a Research Scientist in Information Systems for the U.S. Department of Defense. He has a PhD from Louisiana State University (2013), an MSc from San Diego State, and a BSc from Texas Tech (1999). He has published in journals such as the *Journal of the Association for Information Systems*, *Information and Organization*, *Communications of the Association for Information Systems*, and the *International Journal of Qualitative Information Systems Research*.

Arto Lanamäki is a Postdoctoral Researcher at the Interact research unit, University of Oulu. He has a PhD from University of Bergen (2013) and MSc from University of Tampere (2006). University of Vaasa awarded him the title of adjunct professor (dosentti) in 2017. He has published in journals such as *Computer Supported Cooperative Work*, *Journal of the Association for Information Science and Technology*, *Scandinavian Journal of Information Systems*, *Information Processing & Management*, and AI & Society.

Rudy Hirschheim is the Ourso Family Distinguished Professor of Information Systems in the E.J. Ourso College of Business, Louisiana State University. He has previously been on the faculties of the University of Houston, Templeton College—Oxford (UK), London School of Economics (UK) and McMaster University (Canada). He has held visiting appointments at Monash University (Australia), University of New South Wales (Australia) University of Bayreuth (Germany), University of Jyvaskyla (Finland), University of Warwick (UK), and University of Paris-Dauphine (France). He is on the editorial boards of the journals: *Journal of the Association for Information Systems*, *Information and Organization*, *Information Systems Journal*, *Journal of Strategic Information Systems*, *Journal of MIS*, and *Journal of Information Technology*. He was VP for Publications for the Association for Information Systems.

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