

RIGHTS BASED DATA PRACTICE: DATA JUSTICE IN VIRTUAL SPACES AND ON THE GROUND

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Abstract

The perils of digital exploitation, such as the consumption of individual's identified data for corporate profiteering, digital surveillance, and cybersecurity breaches are many. Often these stories focus on the violation of individual's digital and civil rights. Frequently these violations are most egregiously perpetrated on the most vulnerable citizens in society. However, there is a simultaneous awareness of the power of digital tools and strategies for policy advocacy and community empowerment. Digital tools offer unique opportunities for improving services and increasing access to resources for individuals who are live on the fringes of society, namely homeless people. The rapid advancement of digital technology tools including hardware ~ smart phone devices, digital personal assistants, smart watches and internet of things tools, as well as faster overall computing power, coupled with software in the forms of mobile applications (apps) which use location data to power algorithms for everything from health care decision making to retail choices and options, now presents itself as a constellation of tools which can be deployed for greater inclusion for a range of formerly voiceless populations. The some of these new strategies partner with the community or consumers/service users directly to create apps, new services and digitally enhanced programs, often called civic technologies or social good technology tools.

Vulnerable Populations: The Homelessness

Homeless individuals represent some of the most vulnerable populations in society. These citizens lack the most basic unity of stability, namely, a stable place to reside. Homeless children suffer significant social, health and academic deficits (from their parents' poverty, as evidenced by more frequent school mobility, absenteeism, and grade retention; lower achievement test scores; and a greater risk of learning disabilities, behavioral disorders, and related problems than their domiciled peers (Rafferty et al. 2004, Zima et al. 1997). These educational deficits increase the odds of future disadvantage in adulthood. Adults face challenges receiving services and maintaining treatment compliance and all individuals are at risk for public health threats, violence and other forms of threat. The literature identifies three major types of homelessness: (a) transitional or temporary, describing individuals who are in transition between stable housing situations and whose brief homeless spells often amount to once-in-a-lifetime events; (b) episodic, which entails cycling in and out of homelessness over short periods; and (c) chronic, which approximates a permanent condition (Culhane et al. 2007). In the annual homeless count

conducted by the US conducted in 2013, there were 610,042 homeless persons counted; 65%, or 394,698 persons, were living in shelters or transitional housing of some sort, while the rest, 215,344, were living in places such as abandoned buildings or cars, or under bridges.

Participatory methods

Participatory methods offer service designers, whether digital or not, strategies for engaging end users in the design and development process. The engagement of users in the design of solutions and artifacts can be motivated from two primary perspectives: from the technology perspective, including users in the design process leads to better and more effective products due to incorporation of user-specific requirements and insights in the design process; and from the political perspective, involving users in the design process empowers users and allows them to gain better ownership of the developed artifacts (Bowen, 2010). From the Information and Communication Technologies for Development perspective, the role of the users in the conceptualization and implementation of solutions can be framed along the continuum from passive recipients of technology solutions; to co-creators via participatory methods, including engaging in the designing and development process through participatory action research; through to the empowered stage where users actively drive the development of the solutions and artifacts (Heeks, 2009). Despite the recognition of the importance of end-user participation in solutions development, and the recognized goal of empowerment of the end-users, the lack of success in achieving these two goals of effective participation and empowerment is bemoaned by a number of researchers (Bjögvinsson et al, 2012).

Participatory design and its close relation Participatory Action Research are methodological traditions originating in Northern Europe in the 1970s and 80s. Emerging from industrial organizational studies in Scandinavia, it was motivated by a Marxist/Socialist commitment to democratically empowering workers and fostering democratic voice and ownership in the workplace (Spinuzzi, 2005).

Participatory Design (PD), as a field, grew out of the realization of the need to include and involve the public in decision-making and planning. Over the years it has taken various forms and conceptualization including public/community consultation, cooperative design, collective resource approach, human centered design, value centered design and most recently co-design and co-creation (Muller, 2009; Bødker, 1996). As a design approach it has been used extensively in various fields including product and services design, architecture, urban planning, program design, and software development. It has also seen great developments in new techniques and methods for user engagement – from techniques that target specific types of users, such as novice users, older adults and children with elderly, and special needs children; to the increasing use of technology tools to supporting the various stages of the design process. Despite the variety of the tools and the techniques, the purpose of PD remains primarily for (Sanders, Brandt, & Binder, 2010): engaging participants, probing the participants and encouraging engagement; preparing the participants for immersion in the design process; gaining an understanding of the user's current experiences and context; and generating ideas and concepts. Besides the concern with the methods and tools of user engagement, the PD discourse has also been dominated by the consideration of the politics, as well as the nature of participation and user engagement. In this regard the interaction and power dynamics between not only the end-users and the designers, but

also between the individuals and the technology become of great importance in understanding the effectiveness of PD techniques towards facilitating the achievement of the participation and the empowerment / emancipation goals.

Participatory Mapping

Recent work has expanded the constellation of participatory strategies into the realm of mapping. Participatory mapping techniques are executed by combining traditional community engagement strategies with GIS to create participant activity spaces (Chan, Helfrich, Hursh, Sally Rogers & Gopal, 2014; Townley et al., 2009). Activity spaces represent the spatial movement component of individuals' day-to-day lived experience and can be used to measure and represent geographic accessibility, mobility, and place identity (Gesler & Albert, 2000; Nemet & Bailey, 2000). The size of the activity space is a quantifiable measure of individuals' community engagement and participation, and it has been found to be significantly associated with quality of life, sense of community, and access to healthcare resources (Sherman, Spencer, Preisser, Gelser & Arucury, 2005; Townley et al., 2009).

Because homeless individuals face marginalization and are excluded from many social and spatial environments (Young & Barrett, 2001), it is likely that their opportunities for engagement in a variety of independent, self-directed activities are quite small. This is problematic given the powerful role that such engagement could have in increasing their sense of belonging to the broader community and their ability to remain resilient and optimistic about surviving life on the streets and transitioning out of homelessness. Activity engagement also provides individuals with learning opportunities, thus having the potential to influence their long-term development (Campos et al., 1994).

Human Rights Framework

The Human Rights Framework is an ethical model derived from The Universal Declaration of Human Rights, which was adopted by the UN General Assembly in December 1948, following the Holocaust and the end of the Second World War (Wrenn, 2018). The Declaration enshrines an international consensus, articulating a universal moral order in which all humans share equal status and are entitled to basic rights and freedoms. The Human Rights Framework distills these ideals into a series of working principles, comprised of: Dignity, Non-discrimination, Transparency, Accountability and Participation. Since its ratification, the Human Rights Framework has been used as an ethical framework to evaluate situations where the rights of individuals may be violated, including analysis of intellectual property (Helfer, 2006), globalization and business practices (Ruggie, 2008) and violent social protest (Laplante, 2008). The HRF offers one lens through which to evaluate digital tools serving homeless individuals. The key values of the Human Rights Framework: dignity, accountability, transparency, nondiscrimination and participation are described below.

Dignity

Human dignity appears in the preamble to the Declaration of Human Rights and is echoed later in the document as well as in other human rights instruments: "All human beings are born free

and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood." (Schacter, 1983 p. 838). However, no United Nations instruments, Covenants or international laws specifically operationalize this value. In a relevant contemporary discussion, Gatenio Gabel (2015) suggests that dignity means re-conceptualizing people as rights-holders rather than as clients or consumers.

Nondiscrimination

Non-discrimination can be considered a core human rights principle, protected by law like other rights, including the right to life, freedom from torture, and freedom from slavery (Hamm, 2001). Non-discrimination has traditionally referred to race, however a human rights approach focuses broadly on the experience of disadvantaged groups and individuals in a society (Hamm 2001). In practice, non-discrimination should prevent disparities in how individuals receive resources and gain access to service (Wronka, 2008).

Transparency

Transparency generally refers to clear information and access to information and policies about programs and funding at all levels including institutional performance (Androff, 2015; Fox, 2007). Transparency can add insight on institutional behavior, allowing stakeholders such as policy makers, community members or consumers to pursue change or simply to make informed choices.

Accountability

Accountability is closely linked with the concept of transparency. Though its meaning varies by context, within the Human Rights Framework, accountability suggests that state actors – governments, corporations, and other institutions--can be held responsible for the commitments they make on behalf of constituents. Yamin (2008) identifies a total of six types of accountability: administrative accountability, professional accountability, financial accountability, social accountability, political accountability, and legal accountability. While each of these examples has distinct implications, the central premise is constant: that the state actor is responsible to its constituents to deliver on a service, good or protection. True accountability requires processes that can empower and mobilize ordinary people to become engaged in political and social action (Yamin, 2008).

Participation

Participatory citizenship or participation includes any citizenship actions which work toward the common good of society. Gatenio Gabel (2015) suggests that participation of all individuals in key decision making--especially those affected by the decision making--is a key aspect of a rights based approach. Participation is often associated with processes of information sharing, collaborative or shared decision making, citizenship, and democracy.

The current landscape of digital tools, those mobile as well as web-based, range from dignity and participation enhancing to those that are exploitive of individual's civil and human rights. Below is a summary of such tools.

Participation Enhancing

Participation enhancing tools allow individuals to engage with their communities in meaningful ways. The spirit of participation offers citizens agency and mechanisms for engaging with larger community and civil institutions. Digital tools which enhance homeless individual's participation in their communities include those which allow individuals to rank and review service providers, identify new needs in their community and partner with homeless individuals in the creation of content. Three such tools: One Degree, Streetlives and Ask Izzy are mobile tools which provide information about services as well as allowing homeless individuals to become content providers by allowing users to geo-code new services, describe the service both in words and photographs as well as correct listings for existing services.

Tools such as these help to democratize service provision and shift the balance of power between providers and homeless consumers of services. This tension has been documented by Weise et al. (2017) who documented the changing shift in power from governments and service providers to the public. What underlay this tension was the ability to access service providers via searching for their details online as opposed to a recommendation by an existing case worker or service provider.

While Streetlives, AskIzzy and One Degree might be considered participation enhancing tools, other digital strategies can be thought of as dignity enhancing. Shelter Tech is a mobile strategy for bringing wifi to individuals in shelter. Shelter Tech's Shelter Connect program delivers chargers to shelters so that individuals can remain connected to the broader community even while entering the shelter system. Another Shelter Tech initiative works with Internet Service Providers (ISP) to bring free wifi service to shelters so that individuals can maintain connection, receive email and apply for jobs and benefits.

Privacy invading technologies

While tools such as Streetlives, AskIzzy and others use an asset based approach to serving homeless individuals. Other digital tools are not so rights conscious. The increasing use of facial recognition and other biometric tools simultaneously restrict service access as well as surveil clients. However, some of the most rights violating apps fall under the classification of bystander engagement. Bystander engagement allows individual citizens who observe a homeless individual to photograph that homeless citizen without their consent and report that individual's photograph and geo-position to a central database system. Sometimes these receiving organizations send lay help to "assist" the homeless citizen without their knowledge. These bystander tools violate homeless citizens civil rights as well as their data privacy rights.

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