
Legitimacy at the Outskirts: Categories, Use, and Adoption in Marginal Communities

Christopher A. Le Dantec

GVU Center
School of Interactive Computing
College of Computing
Georgia Institute of Technology
Atlanta, GA. U.S.A.
ledantec@cc.gatech.edu

Abstract

In this paper I present three aspects of legitimacy as paramount when designing technologies for marginal users. The legitimacy of *categories*, *use*, and *adoption* is framed in context of the urban homeless. I argue, briefly, that the tensions that form around these aspects of legitimacy are as important to consider as the functionality or usability of technologies designed for the urban homeless as well as other marginalized groups.

Keywords

Urban Computing, Social Computing, Marginal Communities, Homeless

ACM Classification Keywords

K.4.2 Social Issues: Miscellaneous

Introduction

While there are many social and cultural differences and influences that might be considered within the purview of designing ICTs for marginalized communities, the issue of *legitimacy* is what I will focus on here. Initially brought up by Brewer and Dourish in the context of designing around different interpretations of mobility [1], legitimacy describes the tensions between different interpretations and uses of a shared space or common artifact.

In exploring the role of legitimacy and marginal communities, I will focus on the issues faced by the urban

Copyright is held by the author/owner(s).

UbiComp 2009, Sep 30–Oct 3, 2009, Orlando, FL, USA

homeless. Within this context, there are three key pieces to understanding legitimacy and ICTs: first, the role of legitimacy within the *categories* of services made available or accessed through ICTs; second, the tensions in legitimacy of *use*, especially with respect to technologies that confer social status; third, the role legitimacy plays in ICT *adoption*, taken in light of the user's perception of which technologies they identify with and seek out.

Legitimacy & Categories

The first aspect of legitimacy that affects the urban homeless are the categories of services and resources that are made available through aid organizations. As I and Edwards have previously noted [5], the services provided to the homeless come by way of a variety of nonprofit and state organizations. These services are expressed in a taxonomy of basic human needs and include things like housing, healthcare, childcare, counseling, and the like. This taxonomy is set and maintained largely at a national level via funding and accountability mechanisms set by the U.S. government. As a result, the official taxonomy of basic human services dictates what the nonprofit community makes available to the homeless population because of its official status a bureaucratic tool to secure funding for necessary services.

Yet beyond the official—*legitimate*—set of resources available to the homeless population, there are other important resources in the community that are not well represented by, or have no place in, the official taxonomy. An obvious pair are those related to drugs and sex; however, despite the legal or moral implications of including drug dealers or sex workers as categories of "resources," they are a part of the context of being homeless.

More mundane resources also fall outside of the official categories. Safe places to sleep rough (i.e. outdoors or in a squat) are useful, even necessary for the homeless population; informal places to find food, such as neighborhood restaurants who give away food that would otherwise be thrown out (often in violation of strict food handling regulation); and resources that make up the informal economies of low-income communities are difficult to fit into the legitimate categories of services and resources established upstream as part of city, state, and national programs.

The tensions here between the legitimate resources and the informal, or illegitimate, resources are manifest in how we build systems that serve multiple masters. Often, the categories that serve more abstracted goals such as those to measure programs and outcomes become privileged over categories that reflect local variability. This in turn further marginalizes the community being served by failing to accommodate local practices and preferences in the systems designed to support them.

Legitimacy & Use

Legitimacy and use touches on the social challenges of providing technology to the homeless. For public services, like welfare and disability entitlements, the public has the *right* to these services (insofar as they are eligible), yet when such services are bound up in systems that require technology to access (such as online registration, search, and eligibility verification), then arguably, access to facilitating technology should also be a *right*.

As mobile technologies have become a ubiquitous part of how people interact with social institutions and maintain personal relationships, we have begun a process of

transforming access-as-*privilege* to access-as-*right*; technologies that were once artifacts signifying privilege are now gate keepers to social programs and basic economic stability.

Laptops and mobile phones fall into this group; they have become inexpensive mass-market technologies while retaining some of their social significance as indicators of status (especially in differentiating between specific brands or technical capabilities). Even for the homeless, the status signified by the mobile phone plays an important role in identity management as it enables the homeless to not only control how friends and family stay in contact, but also how they present themselves to potential employers, and how they manage coordinating the services across multiple organizations [2, 6].

However, while the homeless have legitimate uses for the mobile phone, possession of such technologies can work against them. On the one hand, mobile phones are used by the homeless as social tools to mitigate stigma and as functional technologies to manage their lives, find employment, and simply communicate; on the other hand, possession of a mobile phone can exacerbate that same stigma as segments of the public view such technologies as luxury items and not legitimate aids to the homeless and very poor.¹

While it is reasonable to argue that the standard for innovation and intervention should not be dictated by polemic attacks on whether mobile phones are appropriate for a marginalized group, the consequences for the homeless are no less relevant as they are the ones who have to reconcile the different claims on legitimacy in their daily lives. Moreover, in the U.S., where there is a

cultural tradition of self-reliance and individual responsibility, some of the issues of legitimacy are bound up in how technologies help identify different social strata and the choices users make about what technologies to use [7]. Considering the legitimacy of use moves the question of ICT design to a slightly different target where it is not just the technical features that might support this population, but how do those technical features come together in a specific artifact such that it balances different interpretations.

Legitimacy & Adoption

Finally, the challenge of legitimacy and adoption lie in the self-perceptions of the homeless. This last point of adoption is connected to legitimacies of use, though the focus is based on internal tensions rather than externalized social context. As I and Edwards have previously reported [6], the homeless identify with the mobile phone as a technology that suits their needs. In the interviews we conducted, all of the respondents understood that a mobile phone has a number of different potential features that could help them. From calendaring features, to different messaging technologies, to being able to take, store, and share photos, the mobile phone was described with clear relevance and desire.

The personal computer (PC), on the other hand, was not. Instead, the majority of the responses about PCs were formulated in the abstract, missing direct connection to specific instances of where and how PCs had daily relevance. The upshot is that the self-perception was such that the homeless we worked with did not see themselves as legitimate users of the PC—it remained just out of reach, both economically and intellectual-

¹ http://homelessness.change.org/blog/view/michelle_obama_serves_soup_nation_misses_the_point

ly—but they did view themselves as legitimate users of the mobile phone.

This view, that certain technologies are legitimate for certain users points to the care that needs to be taken in deciding how to match the two. In the U.S., there has been a tendency toward viewing access as the primary issue in the domestic digital divide, yet as follow up work has shown, the efforts to bridge issues of access fail as community technology centers sit fallow after a few months [4].

Therefore, the challenge is not specifically around access *per se*, but around appropriately designed technology. Within a global context, a recent critique of the One Laptop Per Child (OLPC) program has highlighted the issues around the legitimate benefit of technical innovations driven by design decisions made *in absentia* from the context of use [3]. Both cases highlight the point that if technologies do not resonate with local views of legitimacy and the social mechanisms that support that legitimacy (i.e. users identification with certain forms of technology as with the homeless, or the need for large-scale institutional support to enable adoption in the case of OLPC) then they will likely fall into disuse.

Conclusion

The issues around legitimacy are in one lens we can use to synthesize the various aspects of the social context in which marginalized groups are situated. Recognizing that services manifested in a particular technology will need to accommodate different kinds of categories is part of recognizing that marginal communities do not live in a vacuum, that their marginality is the result of a broader social or geopolitical tension in legitimacy. The tension between who is a legitimate user of a technological artifact—such as a mobile phone—is tied directly

into the perceptions and public opinions of who should own such artifacts. And the self-perceptions of the users give strong indication about what kinds of technologies might succeed versus those that will not.

References

- [1] J. Brewer, P. Dourish. Storied spaces: Cultural accounts of mobility, technology, and environmental knowing. *International Journal on Human-Computer Studies*. 66(12):963–976, 2008.
- [2] E. Goffman. *The Presentation of Self in Everyday Life*. Anchor; 1959.
- [3] K. L. Kraemer, J. Dedrick, P. Sharma. One laptop per child: vision vs. reality. *Communications of the ACM*. 52(6):66–73, 2009.
- [4] L. Kvasny, M. Keil. The challenges of redressing the digital divide: a tale of two US cities. *Information Systems Journal*. 16(1):23–53, January 2006.
- [5] C. A. Le Dantec, W. K. Edwards. The view from the trenches: organization, power, and technology at two nonprofit homeless outreach centers. In: *CSCW '08: Proceedings of the ACM 2008 conference on Computer supported cooperative work*; pages 589–598, New York, NY, USA: 2008 ACM.
- [6] C. A. Le Dantec, W. K. Edwards. Designs on Dignity: Perceptions of Technology Among the Homeless. In: *CHI '08: Proceeding of the twenty-sixth annual SIGCHI conference on Human factors in computing systems*; pages 627–636, New York, NY, USA: 2008 ACM.
- [7] N. Selwyn. Apart from technology: understanding people's non-use of information and communication technologies in everyday life. *Technology in Society*. 25(1):99–116, 2003.