Knowing the Particulars*

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Jacobs, J. 1961. *The Death and Life of Great American Cities*. New York: Random House

I prefer examples to theories, case studies to experiments. Given a choice between a rich, particular example and an elegant, general theory, I will take the example every time. I prefer the concreteness, depth and the specificity of examples – especially the ways in which they are entwined with their time, place and history. I am not suggesting that examples are some sort of pure, unmediated form of experience – to be powerful, an example needs to be unpacked. A skillful analyst can lift the example up, drawing out its ties to its contexts, revealing the processes that have shaped it, and thus connecting it to larger issues in a way that is broadly meaningful.

Among the most incisive analysts of examples I know of is Jane Jacobs, author of *The Death and Life of Great American Cities*. Jacobs' work has inspired me for years. Although the leap from planning cities to designing interactive systems might seem a long one, the gap is not as large as it appears. I find her examples and analyses a well spring of inspiration for thinking about the design of interactive systems, and particularly the challenges of moving from systems that are simply "easy to use" to those that are engaging, convivial and sustainable.

The Death and Life of Great American Cities appeared in 1961. It was a critique, sometimes verging into polemic, of the approach to urban planning that was dominant in the U.S. in the mid twentieth century. This approach, sometimes called "urban renewal," involved the wholesale demolition of residential 'slums' and 'blighted' business districts and their replacement with neat, 'modern' homes and buildings. The residents – at least those not dispersed by the disruption of 'renewal' – were supposed to be edified and uplifted by their orderly new environment. Jacobs argued fiercely against this approach, writing: "There is a quality even meaner than outright ugliness or disorder, and this meaner quality is the dishonest mask of pretended order, achieved by ignoring or suppressing the real order that is struggling to exist and to be served."(p 15) Jacobs' aim in *Death and Life* was to reveal the real order beneath the veneer of chaos, to show that it was critical to the effective functioning of cities, and to understand how design might support and strengthen it.

For Jacobs, one of the defining aspects of cities is that they are composed of people who are almost all strangers to one another. Yet, in spite of this, cities exhibit a complex array of social processes that contribute to their order. In the 450 pages of *Death and Life*, Jacobs discusses sidewalks and streets, neighborhoods and parks; she is concerned with residents and shopkeepers, children and the elderly; her analyses range from the ways in which strangers interact in public, to the physical factors that produce a lively and sustainable level of commercial activity; and her recommendations range from the size of city blocks (make them short!) to the design of zoning laws (support mixed uses!). *Death and Life* is too grand in its scope to cover in its entirety, so I shall confine my comments to her discussions of sidewalks.

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Sidewalks and streets are, for Jacobs, the basic unit of the city. Everyone must use them: they are where strangers encounter one another and where much of the public life of the city plays out. When visitors speak of a city, commenting on its safety, appearance and liveliness, they are typically referring to the character of its streets and sidewalks. Jacobs devotes the first three substantive chapters of *Death and Life* to an analysis of sidewalk life. She begins with the question of safety, of how order is maintained amidst the constant parade of strangers. She notes that order is not primarily maintained by the police, but rather that "it is kept primarily by an intricate, almost unconscious, network of voluntary controls and standards among the people themselves, and enforced by the people themselves." (p 32) And, she adds, "Safety on the streets by mutual surveillance and policing of one another sounds grim, but in real life it is not grim." Instead, the production of this order "works best, most casually, and with least frequent taint of suspicion or hostility precisely where people are using and most enjoying the streets…" (p 36)

Although this order is produced by people, it is not immune to the effects of environment. One of Jacobs' primary aims is describe the ways in which the design of an urban space can facilitate or hinder the production of this order. She argues that to enable the maintenance of order, a city street must have three main qualities: a clear demarcation of public and private spaces, the presence of many "eyes upon the street," and a continuous stream of users. What Jacobs returns to again and again are the relationships amongst strangers, and the environmental conditions which foster such relationships. She describes the ways in which strangers become familiar with one another, developing nodding acquaintances as they wait at the bus stop together, or patronize the same drugstore, and notes that "It is possible to be on excellent sidewalk terms with people who are very different from oneself..."

In Jacobs' view there is *not* an implied trajectory from nodding acquaintance to friendship. The beauty of such public relationships, and in fact a necessary condition for their easy formation, is that they are free of the obligations and "entanglements" of more intimate relationships. Nevertheless, such weak relationships are powerful. Even if no familiar strangers are actually present, those who are on good "sidewalk terms" with others have, at a deep level, an expectation of support that will lead them to assist a stranger or to stand ready to help in an altercation. As Jacobs says:

> "The trust of a city street is formed over time from many, many little public sidewalk contacts. It grows out of people stopping by at the bar for a beer, getting advice from the grocer and giving advice to the newsstand man, comparing opinions with other customers at the bakery and nodding hello to the two boys drinking pop on the stoop. ... Most of it is ostensibly utterly trivial but the sum is not trivial at all. The sum of such casual, public contact at a local level – most of it fortuitous, most of it associated with errands, all of it metered by the person concerned and not thrust upon him by anyone – is a feeling for the public identity of people, a web of public respect and trust, and resource in time of personal or neighborhood need. (p 56)

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Why should those of us involved in designing technologies be interested in Jacobs' analyses? One reason is that interactive systems are spreading from our homes and offices and into the commercial and public spheres that comprise our urban environment. Those involved in designing ambient intelligence and ubiquitous computing would do well to consider the environments that our new technologies are colonizing, and to reflect on the ways in which interactive systems might serve to support (or diminish) the web of public respect and trust. Eric Paulos and his colleagues at

Intel (e.g., Paulos and Goodman, 2004; Paulos and Jenkins, 2005) are one example of researchers who have used a sophisticated understanding of urban behavior to inform their work.

For myself, I find that Jacobs' view of the nature of urban interaction provides a provocative model for thinking about online interaction. While it has been popular to use "community" as a framework for thinking about many-to-many interactions on the internet, I've become disenchanted with this as a general approach (Erickson, 1997). Online sites that function like real communities are rare. Instead, graphs of the frequency of interaction at most online sites follow a power law: most of the interaction is generated by a very small percentage of the visitors; the large majority are just passing through, perhaps pausing to look or read; of those who 'participate,' the majority do so once. These sorts of interactions seem much more similar to those that occur on a city's sidewalks.

If we think of most online systems as being conduits for flows of strangers – and strangers who would mostly prefer to retain their autonomy and avoid "entanglements" – then Jacobs' observations have much to offer systems designers. First and foremost, users of online systems must be able to see one another. Not that real names or personal details must be revealed, but simply that users must be able to notice one another's presence, have a sense of the foci of activity and attention, and, perhaps, over time, start to recognize others. This has been the primary thrust of my work over the last decade, with the development of the Babble system and its successors (Erickson et al., 1999), and the development of the notion of social translucence, which has to do with the issue of how to find the right balance between individual privacy and the visibility that is essential to supporting the social processes which produce order (Erickson and Kellogg, 2003). But Jacobs, in her consideration of behavior in urban environments, goes much farther than this. The questions she asks – What features of an environment to support interaction among strangers? What attracts people to a place, and what makes them stay or go? What does it require for a commercial area to become self-sustaining? – and her answers to them, provide rich grist for those charged with designing online systems.

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Jacobs' book is part of a larger body of work on urban design that I return to for inspiration. Beginning in the late fifties and early sixties, there was a remarkable convergence of interest in the ways in which urban environments function. Kevin Lynch, best known for *Image of the City* (1960), was investigating and writing about urban design during that period. So was the anthropologist William Whyte (mentioned in Jacobs' acknowledgements), although it would be two decades before he produced his best known (to those in HCI) work, *The Social Life of Small Urban Spaces* (1980) and *City* (1988). And social psychologist Stanley Milgram embarked on a series of experiments and field studies of urban behavior (1977/1992), popularizing the term "familiar stranger" (and verifying it as a quantifiable phenomenon) a decade after Jacobs' description of strangers who were on "sidewalk terms" with one another.

Jane Jacobs died this year, at the age of 89, the last of this group. I've learned a lot from her. Perhaps the most important lesson is one of method. Jacobs was unsurpassed at observing, at finding the telling example that both provided a deeper understanding of the situation, and served as a way of making the point to her audience. She was suspicious of theory, and though she did, of course generalize, wrote: "but let no one be misled into believing that these generalizations can be used routinely to declare what the particular, in this or that place, *ought* to mean. City processes in real life are too complex to be routine, too particularized for application as abstractions. They are always made up of interactions among unique combinations of particulars, and there is no substitute for knowing the particulars." (p 441) There is no substitute for knowing the particulars. This is good advice for anyone involved in design of any kind.

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