



**Takeaways from Urban Policy Advisory Group Session on Civic Technology  
Harvard Kennedy School, Cambridge, Massachusetts  
August 2<sup>nd</sup>, 2012**

The work of Living Cities and its members is taking place at a time when digital technologies and social networks are seemingly transforming every aspect of our lives. Unfortunately, this transformation has yet to spill over significantly to change the relationship between city residents and their governments, or to improve the quality of low-income people's lives.

With this challenge in mind, Living Cities convened in August a group of members of the Urban Policy Advisory Group, along with their chief innovation and technology officers, for a half-day session at the Harvard Kennedy School. The goals of the session were to deepen our collective knowledge of civic tech and its potential for cities – particularly as a means to improve the lives of low-income people, deepen civic engagement, and help city governments work better – and to identify opportunities for UPAG members and Living Cities to learn and innovate together. 11 cities and counties in all participated in the session. Below are our takeaways.

**Fiscal crises and technological advances are creating the potential for a significant shift in the way cities solve tough problems.** As public budgets decline, governments are feeling increased pressure to look outside their walls for solutions to tough problems. At the same time, technological advances are changing people's expectations for how they interact with others, including government, and creating powerful new problem-solving approaches. These forces are upping the pressure on government to pivot from a centralized, bureaucratic way of working to a more open, participatory approach.

**Civic technology can help accelerate this shift** by empowering local governments, residents (especially low-income residents) and civic leaders to engage in new and more powerful ways. For example, a local non-profit in California used crime data generated by the police department to successfully challenge, and subsequently improve, one of the city's crime prevention strategies. In addition to the tools themselves, the tech solution development process opens a window for participants to question longstanding rules, policies and assumptions, creating further opportunity for systemic change.

**The transformative potential of civic tech is limited by issues including:**

- *An entrenched "civic architecture:"*<sup>1</sup> Structural and cultural issues within local government make collaboration and innovation harder. These issues include: closed data, siloed or exclusionary governance structures, rigid business processes, legal and regulatory constraints (real and perceived), and deeply rooted but obsolete beliefs about how work gets done. Inflexibility in existing local government IT systems and working through colleagues' resistance to participating were cited as particularly pressing challenges.

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<sup>1</sup> This term is derived from the term "social architecture" coined by Steven Johnson in his new book, [Future Perfect](#)

- *Gaps in the civic tech marketplace:* Participants raised issues that prevent civic apps from going from prototype to sustainable solution. These include: sorting through hundreds of existing solutions to find the ones that fit best; insufficient mechanisms for cities and civic hackers to generate technology solutions that meet their actual needs; and few firms willing and able to provide, customize and maintain civic apps for cities.

### **Beyond “Just Apps”**

*Participants emphasized that “just having a lot of apps” will not bring about the transformational change desired by many civic tech innovators. Participant input leading up to, during and following the session suggests that a more systematic approach to developing civic tech solutions is required. More specifically, it suggests that solutions should:*

- *Lead with a focus on the issue, not on the technology*
- *Reflect the way intended users actually use technology, and include users in the design process*
- *Be developed through an iterative process of prototyping, testing and adjustment that allows developers to learn and adjust quickly so that the end product gets used to desired effect*
- *Be designed for integration into relevant decision-making or business processes, rather than as a standalone product*
- *Be designed for successful use in as many cities as possible, factoring in considerations such as city size, staff capacity, governance structures, and especially different ways of organizing data*
- *Be developed with a clear and thoughtful business model (e.g., integration into existing technology products or fee-for-service) so that they can be maintained in the longer term.*

*[Special thanks to Nick Grossman, whose own thoughts on principles for Civic Tech especially influenced this distillation]*

- *Slow spread of innovation:* The networks connecting civic tech innovators are just in the early stages of formation. In addition, a lack of data standards (protocols for incorporating data from city governments and others into applications such as maps) prevents applications developed in one city from being easily adopted by other cities, forcing cities to develop otherwise plug-and-play solutions from scratch.
- *Unclear preparedness to respond to an increased volume of public input:* as one participant pointed out, “if you’re going to use technology to deepen civic engagement, you have to be prepared to do something with the input you get. Otherwise, you lose credibility.” Cities have to be willing not only to do the work to incorporate resident data and preferences into their decision-making, but also to build their capacity to do so.
- *Balancing the tradeoffs between government efficiency and mission fulfillment:* As one participant drew the distinction, “business-critical” solutions make city operations better and cheaper, while “mission-critical” solutions may benefit city residents without generating sufficient cost savings to justify the investment. Civic tech innovators are pressed to deliver on both fronts in the face of tight budgets and stretched personnel.

**Civic tech solutions are especially challenging to extend to low-income populations.** Solutions have to be designed for technologies low-income residents actually use. In addition, civic tech solutions have to be designed in consultation with these users in order to meet their unique needs – this process takes extra work and can surface additional issues and complexities that must be addressed as, or even before, civic tech solutions are built. To date, technologists, cities and organizations representing low-income people and communities have been less effective than they might be in addressing these issues.

**Cities can address some of these issues through collaborative efforts.** Several participating cities, for example, expressed interest in innovating around IT procurement to make it easier to adopt civic tech solutions. Participants also expressed interest in developing data standards around specific issues. This work will require sustained, strategic collaboration between local government, civic and technological leaders. What form the vehicles for this collaboration will take is an issue that merits ongoing thought and discussion.