Can Digital Tools Foster Better Practice?

In this commentary, CRP professors William (Billy) Riggs and Chris Clark discuss different approaches to technology in public agency management, and how it may be changing planning practice. In the structure of a traditional debate, Professor Riggs first provides his perspective, which is then followed by a counterpoint by Professor Clark. Professor Riggs then provides a rebuttal and conclusion on the topic.

Riggs Argument:
Technology Can Reshape and Improve Planning Practice.

In 2012 the White House launched its Digital Government Strategy focused on increasing and improving technology in government. The strategy included key goals of such as: enabling access to high-quality digital government information and services anywhere, anytime, on any device; ensuring that the government adjust to technology with regard to devices, applications, and data; and encouraging innovation and high quality services. Since that time many communities have begun to respond but much of that response has been limited in scope to “citizen participation in policy making” (Davies & Bawa, 2012).

In this context, I believe that advances in technology, particularly mobile, offer key opportunities to advance communication and public participation, as well as opportunities to better manage planning departments. This relates to the massive wave of technology adoption in recent years. As of 2015, 64% of Americans have access to a smartphone and 84% have access to and use the internet (Perrin & Duggan, 2015; Smith, 2015). Furthermore social media site usage has grown dramatically over the last decade and now over 65% of Americans use such sites (Perrin, 2015).

This new connected capacity allows for new ways of connecting with citizens. Citizens can access documents, processes, and events via the internet potentially, more actively participating, with greater satisfaction, and with increased regularity in engagement. This improved communication can help in giving decisions more credibility and authenticity (Picazo-Vela, Gutierrez-Martinez & Luna-Reyes, 2012).

This capacity can also reframe the practice of planners. A survey conducted in 2014 by Kayla Gordon and I revealed that 87% of planning professionals either are very dependent on Internet technology, but only 60% were dependent on mobile technology—or could not operate without it (Riggs & Gordon, 2015). This indicates potential efficiencies that could be gained in the workplace, by better using, understanding and applying mobile tools. These did not only include social media tools, shown in Table 1, but workplace tools to: increase productivity (office tools like Word/Excel and project management tools Basecamp); provide better reporting (SeeClickFix and Energy-Gov); enable better data collection (GIS Data Collector, Traffic Duco, and Tableau).

Clark Response:
The Importance of Language

Language has been with us for some considerable time. Full behavioral modernity is believed to have commenced 150,000 to 50,000 years ago (Tomasello, 1996). Suffice it to say we have considerable practice talking to one another, and arguing. Of course, we are less practiced with technology.

Planning is dependent upon people changing their perception of the future. They must understand the proposals and consider the consequences. That is a big deal, given that we are manipulating property values and social services. Modern tools have dramatically increased access to information and provided a platform for advancing a conversation about these important matters. I could not practice planning anymore without social media, analytical tools and the depth of knowledge found in cyberspace.

In our planning practice, my firm operated on a fairly stable methodology for information acquisition and dissemination. First, we would meet in person, whether this was the client or the public. Admittedly the public interaction was often confined to traditional forums; public meetings and other outreach events. Later it became apparent that these were not sufficient, we needed to reach further to be more inclusive. This is often a criticism of technology—it is great for communicating with the technologically literate—not so much for those with little access or ability with the internet.
More importantly, that first set of meetings afforded everyone the opportunity to avail themselves of thousands of years of experience with human interaction. Most everyone can look beyond the opportunity to avail themselves of thousands of years of experience with human interaction. Most everyone can look beyond the words. Each face is an infinity of emoticons.

But once trust and understanding are established, we can proceed to our computers to spread the information and acquire the thoughts of a great many—always remembering that it won’t be everyone, every time. As Professor Riggs notes, the planner is responsible for staying up with the technology. As people progress to newer platforms and media, so too must we. We must cast a very wide net, staying back with those who communicate in traditional ways and venues, and keeping up with the vanguard.

**Riggs Rebuttal:**
*More Work is Needed to Address These Issues.*

As alluded to by professor Clark, technology is not the only answer to planning problems. There are other valuable ways of connecting to stakeholders in planning processes, and there are still steps that need to be made to address issues with technology adoption. For example here is still substantial ‘e-lag’ or uneven adoption of technology for public agencies and planning departments (Riggs, Steins & Chavan, 2015), and there are inconsistencies in approaches to things like accessibility and responsive (mobile) design, privacy and how planners manage their work. In light of this I would offer three topics of reflection as planners integrate greater levels of technology in their workplaces.

1. **Accessibility / Responsive Design:** Deployment of a website and/or social media presence should consider all users, and provide alternatives to user-unfriendly interfaces. For instance, a site coded completely with flash may be inaccessible to someone with a cognitive impairment, or a website without proper markup may be inaccessible to a person with a visual impairment that relies on screen reader technology (Lazar & Jaeger, 2011). Having an appropriately designed and accessibility web platform is an important part of this process in ensuring that a mobile equipped society can access government documents. Additionally, since just one in three Latinos who speak only Spanish go online (Fox & Livingston, 2007), simply having a multi-lingual web presence cannot be a substitute for good community outreach—a factor that Professor Clark reinforced.

2. **Security / Privacy:** While having the technical wherewithal to collect and collate data from existing social media sources related to the agency is potentially invaluable it also presents risk. Such tools present security issues, sticky political situations, and may constitute generation of official public agency records that have to be archived and managed (Bryer & Zavattaro, 2011). Therefore, prior to deployment, it is important to think about questions like: What is the effect on the budget and scope in light of public records requests? What kind of employee training is needed? How do citizens need to be informed that the information they submit to web and social platforms even becomes a public record? Who owns the public record data at the end of the day, cities or vendors?

---

**Table 1:**
The Top 20 Mobile Apps for Planning in 2014 (Gordon, 2014).

<table>
<thead>
<tr>
<th>Informational</th>
<th>Transactional/Interactive</th>
<th>Utility/Productivity</th>
<th>Virtual Reality &amp; Gaming</th>
<th>Wayfinding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static</td>
<td>Dynamic</td>
<td>Alert</td>
<td>Crowd-sourcing</td>
<td>Reporting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Data Collection</td>
<td>Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Management</td>
<td>Presentation/Annotation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Asynchronous</td>
</tr>
</tbody>
</table>

- **American Planning Association**
- **StreetLite**
- **CSI-BPO**
- **Crowdbrite**
- **MetroQuest**
- **SeeClickFix**
- **OpenGov IG Workforce**
- **U.S. Green Infrastructure Reporting**
- **Traffic Data**
- **LocalData**
- **ArcGIS Code Officer**
- **Tableau**
- **Collector for ArcGIS**
- **Environmental Impact Calculator**
- **AgilePlan**
- **Cycle Tracks**
- **Zoner**
- **MasterPlace**
- **Basecamp**
- **Impact Management**
- **WAYFINDING**
- **Presentation/Annotation**
- **Environment**
- **Virtual Reality & Gaming**
- **MasterPlace**
- **Data**
- **Project**
- **Collection**
- **Reporting**
- **Alert**
- **Crowd-sourcing**
- **Dynamic**
- **Static**

---

For instance, a site coded completely with flash may be inaccessible to someone with a cognitive impairment, or a website without proper markup may be inaccessible to a person with a visual impairment that relies on screen reader technology (Lazar & Jaeger, 2011). Having an appropriately designed and accessibility web platform is an important part of this process in ensuring that a mobile equipped society can access government documents. Additionally, since just one in three Latinos who speak only Spanish go online (Fox & Livingston, 2007), simply having a multi-lingual web presence cannot be a substitute for good community outreach—a factor that Professor Clark reinforced.
3. Workplace / Workflow Management: As referenced in my principal argument, digital technology offers new ways of knowing and responding to information. It also promises new ways to manage the workplace. In my 2015 Web Technology Benchmarking Survey we found that very few planning offices offer online, e-permitting (Riggs et al., 2015). This will likely change in the future as more simple approvals are granted via e-permits. I have speculated that it may be that we see an airline-kiosk or concierge-oriented approach to the permit desk in the future were there can be more self-service options for permit applicants and citizens looking for over the counter products.

Likewise planning managers need to be receptive to changing workplace dynamics and the ability to work in less traditional environments. For example, the federal government has made aggressive steps to increase telework, by providing off-site work tools and flexible schedule arrangements (Shanks, 2007). Data indicates this has resulted in greater levels of workplace satisfaction and commitment, especially for those looking for family-friendly work environments (Caillier, 2013). While there may be some components of planning practice that require an onsite presence, there is also a large component of the workday local planning departments would do well to embrace and implement such thinking.

In conclusion, reviewing these aspects of an agency’s technology portfolio may provide a starting point for thinking about how to approach wider adoption alongside existing strategies. Clearly there may be other issues that emerge with each local application of technology, but moreover, such tools have the capacity to both empower and enliven. They can help us continue to articulate and evolve the way we have communicated for years upon years.

References:


