The Emergence of Civic Tech: Investments in a Growing Field

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At Knight Foundation, we strive to support informed and engaged communities. With the proliferation of technology in everyday life over the past decade, Knight has increasingly funded new technologies designed to improve the health and vitality of cities. Since 2010, Knight has invested more than $25 million in such projects, ranging from government data access platforms to new tools for community planning to online neighborhood forums.

Over the past two years, we've witnessed through our work a groundswell of interest at the nexus of technology, civic innovation, open government and resident engagement. Though the terminology may vary, more and more funders, investors and practitioners have joined this emerging “civic tech” field. We began to wonder: How can practitioners supporting civic tech form stronger connections, and how can we gather better insights into the trends in the field?

Knight embarked on an analysis earlier this year to examine clusters of innovation and investment within the field of civic tech. Rather than performing a run-of-the-mill landscape review with stakeholder interviews, we decided to experiment with a new set of research tools. We partnered with Quid, a firm that specializes in data analytics and network analysis, to map the field of civic tech through semantic analysis and private and philanthropic investment data.

This report summarizes key findings and implications from the analysis. We hope this experiment will be valuable to those interested in the field of civic tech as well as organizations looking to advance the use of big data in the social sector. This study is a first foray into analyzing the civic tech landscape but is certainly not an exhaustive analysis. We look forward to continued partnerships with others to advance learning and practice in this field.
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Overview

This section examines:

OBJECTIVES
What are the main questions explored in the study?

DEFINITION
What is “civic tech”?

SCOPE
What types of organizations and investment are included in the analysis?
Objectives

The analysis was designed to address the following questions:

- **How much money** is being invested in civic tech projects?
- **What are the different clusters** of civic tech innovation?
- **How does investment vary across** these clusters of innovation?
- **Which organizations are attracting the most investment?**
- **Who is investing in civic tech?**
- **What is the balance of private and philanthropic investment?**
Civic Tech: A Convergence of Fields

This review incorporates tech companies and projects from several fields of work. Only projects primarily focused on promoting civic outcomes were included.
Criteria for Inclusion

This study focuses on organizations, including for-profit companies and nonprofits, that received funding between January 2011 and May 2013\(^1\) to develop or scale civic technology.

The review used a set of guidelines to determine which projects should be included. The resulting analysis provides a useful initial assessment, albeit not an exhaustive examination, of the emerging field of civic tech.

- **Organizations**
  Startups, private companies and nonprofits are included. Events, loose affiliations and networks that are not legally registered entities are excluded.

- **Time Frame**
  Organizations that received funding between January 2011 and May 2013 are included. Organizations that received funding prior to January 1, 2011, are largely excluded.

- **Investment**
  Grants and investments made by foundations, corporations and private investors are included. Government and public funding for civic tech is excluded. In addition, an organization must receive funding from a third party, rather than just being financed through an organization’s internal budget.

- **Technology**
  Organizations funded to support advocacy, research, events and other purposes related to civic tech but not directly tied to building tech-related projects are excluded.

- **Geography**
  The study concentrates on U.S. investments in U.S.-based civic tech projects. Some international companies that achieved significant investment and/or press also included.

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\(^1\) The analysis captures organizations that received funding during this period; some have subsequently closed operations or been acquired. Quid’s investment database captures funding dating back to Jan. 1, 2011. While the review captured a handful of projects that received funding prior to this date, those data are not as comprehensive as data analyzed from this point forward.
This section examines:

**APPROACH**
How was the civic tech landscape mapped?

**CLUSTERS**
What are different innovation clusters in the field?

**TRENDS**
How has the field grown over time?
Approach to Mapping Civic Technology

The following steps were used to map the civic tech landscape:

1. Quid and Knight, in consultation with others in the field, seeded the analysis with a set of organizations viewed as core to civic tech innovation.

2. Key terms (e.g., "civic," "open government," "open data") were used to examine media, press and investment data to generate additional organizations to include in the landscape.

3. Quid’s proprietary software generated a network map based on the level of similarity between the way organizations described the functionality and purpose of their technology.

4. Quid and Knight reviewed the resulting map and determined descriptors for different clusters of organizations that emerged from the analysis.
Landscape Themes: Open Government & Community Action

In reviewing the network map, two top-level themes were identified in relation to the organizations included in the analysis. The network map was then color-coded to highlight these two themes.

Open Government
Projects focused on advancing government transparency, accessibility of government data and services, and civic involvement in democratic processes.

Community Action
Projects catalyzing peer-to-peer information sharing, civic crowdfunding and collaboration to address civic issues.
Innovation Clusters

Within the two overarching themes, 11 clusters of civic tech innovation were identified:

**Open Government**
1. Data Access & Transparency
2. Data Utility
3. Public Decision Making
4. Resident Feedback
5. Visualization & Mapping
6. Voting

**Community Action**
7. Civic Crowdfunding
8. Community Organizing
9. Information Crowdsourcing
10. Neighborhood Forums
11. Peer-to-Peer Sharing
## Open Government Innovation Clusters

<table>
<thead>
<tr>
<th>CLUSTER</th>
<th>EXAMPLE ORGANIZATIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data Access &amp; Transparency</strong></td>
<td>Socrata, padr</td>
<td>Promote government data availability, transparency and accountability</td>
</tr>
<tr>
<td><strong>Data Utility</strong></td>
<td>AlertID, mySociety</td>
<td>Empower users to analyze government data and leverage data to improve public service delivery</td>
</tr>
<tr>
<td><strong>Public Decision Making</strong></td>
<td>LOCALOCRACY, ourSAY</td>
<td>Encourage resident participation in large-scale deliberative democracy and community planning efforts</td>
</tr>
<tr>
<td><strong>Resident Feedback</strong></td>
<td>SeeClickFix, PUBLICSTUFF</td>
<td>Provide residents with opportunities to interact with government officials and give feedback about public service delivery</td>
</tr>
<tr>
<td><strong>Visualization &amp; Mapping</strong></td>
<td>azavea, PublicEngines</td>
<td>Enable users to make sense of and gain actionable insight from civic data sources, specifically through the visualization and mapping of that information</td>
</tr>
<tr>
<td><strong>Voting</strong></td>
<td>TurboVote, Votizen</td>
<td>Support voter participation and fair election processes</td>
</tr>
</tbody>
</table>
## Community Action Innovation Clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Example Organizations</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Crowdfunding</td>
<td>neighbor.ly</td>
<td>Support local projects and organizations that generate a public benefit through peer-to-peer lending and crowdfunding.</td>
</tr>
<tr>
<td></td>
<td>Citizinvestor</td>
<td></td>
</tr>
<tr>
<td>Community Organizing</td>
<td>change.org</td>
<td>Manage social campaigns and initiatives</td>
</tr>
<tr>
<td></td>
<td>BangTable</td>
<td></td>
</tr>
<tr>
<td>Information Crowdsourcing</td>
<td>waze</td>
<td>Collect data from a large number of individuals to inform and address civic issues.</td>
</tr>
<tr>
<td></td>
<td>NoiseTube</td>
<td></td>
</tr>
<tr>
<td>Neighborhood Forums</td>
<td>Nextdoor</td>
<td>Power local groups of people to connect, share information and collaborate.</td>
</tr>
<tr>
<td></td>
<td>front porch forum</td>
<td></td>
</tr>
<tr>
<td>Peer-to-Peer (P2P) Sharing</td>
<td>Couchsurfing</td>
<td>Promote resident-driven sharing of goods and services</td>
</tr>
<tr>
<td></td>
<td>lyft</td>
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</table>
The analysis of civic tech organizations launched each year since 2000 reveals consistent, high growth rates in the field. From 2008 to 2012, the field of civic tech grew at an annual rate of 23%. 

- 2000: 16 civic tech companies founded
- 2004: 34 companies
- 2008: 83 companies
- 2012: 121 companies

- 2000–2004: 21% CAGR
- 2004–2008: 25% CAGR
- 2008–2012: 23% CAGR
Growth Trends by Cluster

Growth has varied across innovation clusters within civic tech, with Community Action clusters growing at a faster rate than those in Open Government. The fastest growth has been among organizations focused on Peer-to-Peer Sharing (36% annually from 2009 to 2012).
This section examines:

**TOTAL INVESTMENT**
How much money has been invested in civic tech projects?

**FUNDING DISTRIBUTION**
How has investment varied across different themes and innovation clusters in the landscape?

**CLUSTER CHARACTERISTICS**
What are the primary characteristics of the organizations in each innovation cluster?
Total Investment Summary

**209** civic tech projects identified in the civic tech landscape

**102** of the 209 organizations received investment from Jan 2011 to May 2013

**$431M** invested in these civic tech organizations

**237** different investors provided funding to civic tech organizations

**177** investments made in civic tech organizations

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1. Instances where multiple investors participated in the same funding round are counted as a single investment
The analysis reviewed the number of investments and amount invested in each innovation cluster from January 2011 to May 2013.

Peer-to-Peer Sharing attracted the vast majority of total investment in the landscape (close to $240M), followed by three clusters that each received close to $40M: Neighborhood Forums, Community Organizing and Information Crowdsourcing.

1 Includes grants and private investments from 1 Jan 2011 to 31 May 2013
2 Peer-to-Peer Sharing includes a $119M round for Airbnb
Innovation Cluster Maturity

The analysis examined the median age of organizations in each civic tech cluster.

Compared to the tech industry as a whole, civic tech organizations are relatively young. Civic Crowdfunding projects have a median age of just two years, while the average age of organizations in the most mature clusters—Voting, Public Decision Making and Visualization & Mapping—was five to seven years.
Investment Concentration within Clusters

The analysis examined the distribution of investments within each cluster to highlight emerging market leaders and competitive dynamics at play in each area. The diagram ranks the “investment inequality” of clusters by measuring the extent to which a handful of organizations have secured a dominant share of capital to the cluster.

Neighborhood Forums is an example of a civic tech cluster with a high level of investment inequality where a single firm has received the overwhelming share of investment (Nextdoor = $40.2M).

Information Crowdsourcing and Peer-to-Peer Sharing clusters have the most unequal levels of investment, but dominant firms in both areas are highly focused on particular issue verticals (e.g., Waze = transportation data, Airbnb = housing).

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1 Investment inequality is based on the Gini coefficient, which measures on a 0–1 scale the evenness of funding distribution across organizations within each cluster (0.0 = perfectly even distribution, 1.0 = single firm received entire share of funding).

Highest Funded Organizations

- **Nextdoor**: $40.2M
- **Airbnb**: $118.6M
- **CODE for AMERICA**: $9.8M
- **ODI**: $16.5M
- **Change.org**: $15.0M
- **Judicata**: $2.0M
- **PublicStuff**: $6.5M
- **Lenddo**: $8.0M
- **Living Cities**: $0.3M
- **ElectNext**: $1.7M
Cluster Characteristics

Cluster investment inequality can be cross-analyzed with median investment size by cluster to help determine the competitive dynamics and impressionability of each cluster.

“Emerging” clusters of innovation have lower investment inequality and contain organizations that attract smaller average investments—these include Public Decision Making, Civic Crowdfunding and Voting.

“Developed” clusters have a high level of investment inequality (i.e., market leaders attracting the bulk of investment) and higher average investments—these include Peer-to-Peer Sharing and Neighborhood Forums.
Investor Analysis

This section examines:

**TYPES OF CAPITAL**
What is the balance between private and philanthropic capital supporting civic tech?

**INVESTORS**
Who is investing in civic tech?

**INVESTOR NETWORKS**
How are civic tech investors connected?
Types of Capital

The analysis examined the balance of private and philanthropic investment attracted by civic tech organizations from January 2011 to May 2013.

While the number of grant investments and private investments was relatively even, the vast majority of total capital supporting civic tech came from private investments (84%).

<table>
<thead>
<tr>
<th>Total Investments</th>
<th>Total Investment Dollars</th>
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</thead>
<tbody>
<tr>
<td>177</td>
<td>$431M</td>
</tr>
<tr>
<td>Grants 101</td>
<td>$67M</td>
</tr>
<tr>
<td>Private Investments 76</td>
<td>$364M</td>
</tr>
</tbody>
</table>
The mix of philanthropic funding and private investment from January 2011 to May 2013 varied greatly between the two themes.

Open Government innovation clusters including Data Utility, Data Access & Transparency, and Resident Feedback are mostly supported through grant funding.

Community Action clusters including Peer-to-Peer Sharing, Neighborhood Forums, Civic Crowdfunding and Information Crowdsourcing mostly attracted private capital.
Civic Tech Investors

Four types of investors are involved in supporting civic tech projects—foundations, financial investors, corporate investors and individual (often angel) investors.

Investor types and investment count of most frequent investors are based on data from January 2011 to May 2013.

1 Omidyar Network is designated as a financial investor but operates as a philanthropic investment firm that also provides grant funding.

2 Foundation investors may have contributed multiple types of investments—grant funding, program-related and mission-related investments.

Code for America and Points of Light are included in this list stemming from funding they provide through their civic accelerators.

<table>
<thead>
<tr>
<th>Top Financial investors (84 total)</th>
<th>Top Foundation2 investors (32 total)</th>
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</thead>
<tbody>
<tr>
<td>Omidyar Network1</td>
<td>Knight</td>
</tr>
<tr>
<td>SV Angel</td>
<td>MacArthur</td>
</tr>
<tr>
<td>Start Fund</td>
<td>Hewlett</td>
</tr>
<tr>
<td>Y Combinator</td>
<td>Rockefeller</td>
</tr>
<tr>
<td>Lerer Media Ventures</td>
<td>Points of Light</td>
</tr>
<tr>
<td>General Catalyst</td>
<td>Open Society</td>
</tr>
<tr>
<td>Benchmark Capital</td>
<td>Code for America</td>
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<tr>
<td>Andreessen Horowitz</td>
<td>Ford</td>
</tr>
<tr>
<td></td>
<td>Kauffman</td>
</tr>
<tr>
<td></td>
<td>Gates</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Top Corporate investors (21 total)</th>
<th>Top Individual investors (101 total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
<td>Ashton Kutcher</td>
</tr>
<tr>
<td>Dell</td>
<td>Sean Parker</td>
</tr>
<tr>
<td>Zipcar</td>
<td>Guy Oseary</td>
</tr>
<tr>
<td>SXSW</td>
<td>Esther Dyson</td>
</tr>
<tr>
<td>Obvious</td>
<td>Aviv (Vivi) Nevo</td>
</tr>
<tr>
<td>Nelnnet</td>
<td>Alexis Ohanian</td>
</tr>
<tr>
<td>Daimler</td>
<td>Peter Thiel</td>
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<tr>
<td>BMW</td>
<td>Marissa Mayer</td>
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<tr>
<td>Bennett Coleman</td>
<td>Jeff Bezos</td>
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<tr>
<td>Comcast</td>
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</tbody>
</table>

ADDITIONAL RESOURCES

Civic Tech Directory
Index of organizations, investors and investment data

Download
Investor Analysis

Financial investors and individuals support a large share of Community Action investments. Foundations account for more than half of the number of investments in Open Government.

Count Of Investments By Investor Type

- Community Action: 96
- Open Government:
  - Foundations: 55
  - Individual investors: 9
  - Corporate: 10
  - Financial: 31

113 investments in Total.
Investor Networks

The analysis reviewed funder relationships based on instances where they co-invested in the same civic tech organizations. Venture capital and angel investors are at the center of the network map, signaling they most frequently co-invest with others. Foundations are largely peripheral to the investor network, rarely co-investing with other types of investors.

**READING THE MAP**
- Each circle represents a distinct investor
- Investors share a connection when they have both co-invested in the same company
- A larger circle indicates that the investor has co-invested frequently with others
This section examines:

**STRATEGIC IMPLICATIONS**
How might foundations continue to influence the growth of civic tech?

**NEXT STEPS**
How can civic tech funders and practitioners build on the insights from this initial analysis?
Findings from this initial analysis of civic tech funding raise important questions about opportunities and approaches for investors, particularly foundations, to advance this emerging field.

1. **How can Open Government attract greater private capital?**
   Though the number of philanthropic grants far outpaces private capital investments (65 vs. 14), private capital constitutes $21M of $75M invested in open government. Examining the characteristics of open government organizations attracting private investment might help illuminate the viability of market-based initiatives in this space and be used to attract more private capital.

2. **How can philanthropy support new “Tools for Democracy”?**
   Innovation clusters focused on civic engagement and democratic participation—Public Decision Making, Resident Feedback and Voting—are among the youngest and least funded areas in the overall landscape. At the same time, they appear most ripe to be influenced through further support based on the small average investment size and lack of a dominant market leader in each cluster.

3. **How can philanthropy exert influence beyond its investments?**
   Philanthropy can shape the civic tech field in ways besides directly investing in organizations, especially in clusters where significant private investment already exists. For example, foundations may achieve greater impact advancing the growth of peer-to-peer sharing economies by addressing outdated regulations inhibiting the growth of this sector rather than supplying limited amounts of grant funding to a handful of tech organizations in the space.

4. **How can funders increase co-investment and collaboration?**
   Relatively little co-investment currently occurs in the civic tech field, especially between philanthropic institutions and other types of investors. As more foundations pursue impact investing strategies, philanthropic funders could seek out more opportunities to co-invest and partner with other types of investors.
Next Steps

This initial review was designed to provide a clearer picture of overall investment flows in civic tech, including the distribution of investments across different clusters of innovation and variances between private and philanthropic support. While the boundaries of civic tech remain loosely defined, the analysis demonstrates a growing level of investment and activity in civic tech.

This report summarizes findings from the analysis. Additionally, two related resources exist for those interested in exploring the underlying data about civic tech organizations and investors.

Interactive data visualization tool to explore the data

Share Feedback and Suggestions

Help improve the analysis and build a more robust data set of civic tech organizations and investments. We will update the report in 2014 and welcome your recommendations for other organizations to include in the data.

Do you have any feedback?
Share your suggestions with Jon Sotsky at the Knight Foundation.