

Civic Action Brokering Platforms: Facilitating Local Engagement with ACTION Alexandria

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ABSTRACT

Local communities are turning to new online systems to help motivate and coordinate local volunteerism and problem solving. Inspired by the American barn raising tradition, ACTION Alexandria is designed to help local residents and service-oriented organizations collectively take action to address pressing local needs. This paper introduces “civic action brokering” as a new theoretical concept and frames it within a year-long evaluation of ACTION Alexandria. A mixed-method, case study approach was used to understand how social practices, roles, and technologies helped or hindered successful action brokering. Successes were attributed to a competent community manager, institutional support from an existing nonprofit brokering agency, effective use of social media, a synergistic partnership with nonprofits that helped grow each group’s donor network, and emphasis on promoting immediate actions and soliciting ideas for Community Challenges among residents and nonprofit organizations.

Author Keywords

Civic engagement; civic action brokering; community; case study; citizen engagement

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION

In early rural American life, the barn raising tradition arose out of necessity; small efforts and contributions from large numbers of people in the surrounding area were required to construct a building that would benefit the larger community. Brought together by the harsh realities of frontier living, settlers responded to the needs of their community and peers. Whether motivated by altruism, an expectation of a returned favor, or devotion to a shared value system, the resulting

local collective action helped build strong social ties and community structures.

Today’s communities still face challenges as monumental as barn raising that require as many hands to construct, such as ensuring community food pantries are stocked to feed the hungry and rebuilding homes after a natural disaster strikes. Existing social media sites like Twitter and Facebook are widely used to help promote collective action, and increasingly systems are specifically designed to meet the unique needs of collective civic participation. These systems often include technical features and functions that enable crowdsourcing through social networks, but action does not occur simply because a system enables it. Though crowds do form on their own to solve social problems, there are civic challenges that go unnoticed by local residents.

One major challenge of enabling civic participation is the pairing of those who are willing to take action with those who have legitimate needs. When community problems are known, it is not always clear how one can contribute or collaborate in an unstructured, volunteer-based environment. These challenges emphasize the role of social and technical intermediaries that help match potential actors (i.e. volunteers) with those in need and the nonprofits and government agencies that serve them. We call this intermediation between those performing and those organizing civic activities *civic action brokering*.

Civic action brokering through websites and social media is part of a broader set of public engagement goals to promote what has been called “collaborative governance” or “participatory governance” – the inclusion of public agencies, non-profit civic organizations, and individuals in addressing community issues (e.g., [4,29]). Such initiatives “blur traditional boundaries between organizations, sectors, and policy design and implementation” and their success depends on meaningful involvement from all stakeholder groups in a community [29, p. 246].

This paper discusses ACTION Alexandria, a socio-technical platform designed to promote civic action brokering within the Alexandria, Virginia community. We use a case study approach to identify the social practices and technical features used by ACTION Alexandria to implement civic action brokering and assess their impact. Our analysis

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highlights the key factors contributing to successful collective action, as well as the challenges the community still faces for implementing effective and sustainable civic action brokering. We end by discussing key design challenges of platforms that promote civic action brokering and recapping best practices learned from the case study.

CIVIC ACTION BROKERING

This section defines the novel concept of civic action brokering, describes how it relates to other forms of online collective action, and introduces the ACTion Alexandria civic action brokering platform.

Defining Civic Action Brokering

Civic action brokering is best defined by describing its core elements:

Civic Action: The word *action* connotes “something that is done or performed, a deed, an act” [1]. In the context of civic participation, actions include acts of service (e.g., labor), provision of resources (e.g., items, money, access), sharing of expertise, and the active promotion of a cause. Actions are the primary goal of civic participation initiatives that aim to promote prosocial behaviors for the public good. The qualifier *civic* highlights that the action is “concerned with the welfare of the community as a whole, public-spirited” [10].

Brokering: The word *brokering* connotes an intermediary who negotiates an exchange between two parties [9]. The primary responsibility of a broker in a traditional, financial sense is to bring together buyers and sellers. In the context of civic action, action brokers help address social issues by matching up individuals interested in performing civic actions, called *action seekers* (e.g., potential community volunteers), with those who help organize and offer civic actions, called *action providers* (e.g., nonprofits or government agencies who work on behalf of individuals in need). Brokering may also occur between organizations who share a common mission, but who would not otherwise know about one another or work together effectively without the intermediary.

Thus, civic action brokering is the work performed by an intermediary to match action seekers with action providers so they can accomplish civic deeds. There are several potential benefits of civic action brokering. As in the financial world, the advantage of using a broker is that the broker has a comprehensive view of the market and has established relationships with the different parties. Maintaining a comprehensive network of connections takes considerable time and effort. By delegating social network maintenance to a broker, individuals and organizations can devote their scarce resources (e.g., time) to their own domain, yet remain connected via the broker to potential partnerships. In addition, brokers can help organize collective efforts that are hard for disconnected groups to perform on their own.

Civic action brokering takes place informally across many types of action seekers and action providers in local

communities. It occurs, for example, when a mother invites her friend to contribute baked goods to a local PTA bake sale, when a religious congregation encourages its members to serve at the local soup kitchen, and when the local county volunteer center distributes a calendar of service events to email subscribers. In all of these cases an individual or organization plays the role of a third party broker helping to match up those seeking out or capable of volunteering with those organizing such activities. As the examples illustrate, many different individuals and organizations play the role of an action broker either intentionally or unintentionally. In this paper, we focus primarily on intentional civic action brokering via online tools, a community manager, and organizational support.

Civic Action Brokering and Online Collective Action

Civic action brokering occurs within the growing research areas of collective action, crowdsourcing, participatory challenge platforms, and technology mediated social participation. Collective action is a concept used in sociology to help explain how individuals form in a grassroots manner around an idea to create action (e.g., [18,37]). With the increase in social media tools that enable distributed collective action through online contexts, groups can form around any number of social issues to achieve goals quickly and effectively ranging from organizing protests against local regimes [34] to coordinating disaster response via online coordination networks [17].

Recently there has been increased emphasis on understanding novel platforms designed to support active participation at all levels of civic and philanthropic life [3,12,20,23,26,32]. A need to focus on both the social and technical aspects of participatory platforms has emerged in the area of technology-mediated social participation [30]. Civic action brokering advances our understanding of that broad literature by taking into account the facilitated nature of the collective actions that occur on participatory sites. Though technology is a mediating factor and we discuss its implications, this case study sheds light on the behind-the-scenes social practices of community managers, policy makers, and local citizens who use technology to mediate social participation and increase collective action.

Finally, there are some similarities between the idea of civic action brokering and crowdfunding sites, particularly philanthropic crowdfunding sites such as GiveForward and Kiva. They both leverage online resources to support micro-contributions and act as brokers to match funders with those needing funds. However, whereas crowdfunding sites are predominantly focused on fundraising, civic action brokering sites are also interested in facilitating actions (e.g., providing services, finding volunteers, collecting specific items) and ideas (e.g. community problem solving efforts). As a result, civic action brokering requires significant investments in relationship building (e.g., with local government; between nonprofits) and significant involvement by the broker who

often serves as a matchmaker and helps train and support non-technically savvy organizations.

Civic Action Brokering Environment

The civic action brokering environment is presented in Figure 1. As shown, brokering occurs between Action Seekers and Action Providers. Brokering is typically mediated by a combination of technologies (e.g., web-based platform and/or social media), people (e.g., a community manager or sponsoring organization), social practices, and policies. We call this entire socio-technical system the civic action brokering platform.

A single individual or organization may serve as an Action Seeker at one time and an Action Provider at another time depending on the situation. For example, a resident may seek volunteer work at a homeless shelter and later provide service opportunities to others when organizing a neighborhood cleanup.

An implicit group of individuals within this model are the recipients or beneficiaries of the completed actions; those for whom the Action Providers and Action Seekers dedicate their work in a given action. Depending on the type of project, beneficiaries (who are also residents of the community) may themselves be Action Seekers and may come from vulnerable populations, such as those in need of housing, individuals who have been incarcerated, victims of abuse, the elderly, or the young.

Indeed, some of the better ideas for meeting the needs of vulnerable populations come from those who understand the issues best due to their own experiences. Although most civic action brokering platforms do not prevent beneficiaries of civic actions to participate as Action Seekers, the majority of interaction with beneficiaries is often mediated through Action Providers (i.e., nonprofit and government organizations in a community). This model leaves the responsibility of identifying and meeting the unique needs of various vulnerable populations in the hands of the nonprofit and government organizations most familiar with them.

A different approach would be to design a civic action brokering platform explicitly for interactions with vulnerable populations. For example, there is a small, but growing body of research considering how homeless individuals are already engaging on social media, which may be overlooked by society and other stakeholders in the social services sector (e.g., [24]). There is also some design research focused on bringing together multiple-stakeholders in specific organizations through participatory design efforts, though this has not been done in the context of designing civic action brokering platforms [19, 27, 38]. We cover this gap/opportunity further in the Discussion section.

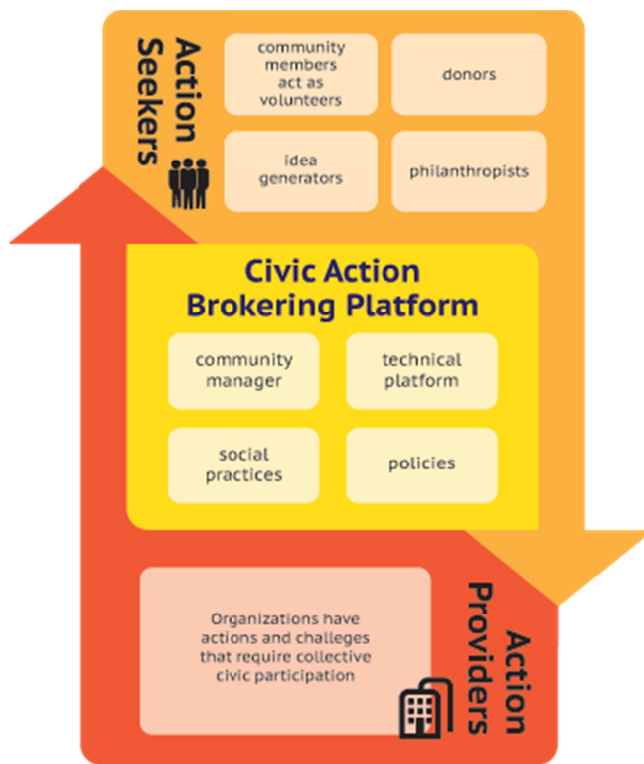


Figure 1: Civic Action Brokering Environment

Platforms that Broker Civic Action

Several large-scale platforms that broker civic action have emerged in recent years, fueled largely by advances in social media. For example, ChangeMakers by Ashoka brokers between “innovators” (civic action providers who share novel solutions to community problems) and “advocates” (action seekers who volunteer their skills and time to help innovators meet their goals). TakingITGlobal uses a similar approach, though it focuses on young adults (aged 13-30) and their schools and teachers. The “Action Tools” section of their website helps broker various types of civic actions including “commitments” in the form of pledges, “petitions” which individuals can sign and share, and “Featured Actions” (e.g., a challenge to eat a “Low Carbon Lunch”). Other platforms such as Give a Minute, Changeby.us, and BeNeighbors.org broker ideas for civic action at local levels. Puget Sound Off focuses on brokering ideas and civic actions among youth blogger journalists in a local community [13]. Despite the growing number of civic action brokering platforms, few studies have evaluated their effectiveness, or the specific technical and social aspects that lead to success or failure. The following case study of ACTION Alexandria, a city-level civic action brokering platform, illustrates the potential that such platforms have for solving community problems and sheds light on the importance of human face-to-face interactions that localized civic action brokering requires.

ACTion Alexandria Platform

ACTion Alexandria is a platform designed to broker civic actions in the form of ideas and specific activities in Alexandria, VA. As others have done, we use the term ‘platform’ in its broadest socio-technical sense to encompass not only the technical aspects of the system (its features and affordances), but also the core social or human elements of the system (its human mediators, participants, policies, and social context) [15,23]. The platform includes a website (Figure 2), Twitter account (@ACTionAlexVA), Facebook page (www.facebook.com/ACTionAlexandria), a full-time paid Community Manager responsible for the day-to-day operations and outreach efforts, a steering committee, and policies and procedures that underlie its use. In the sections that follow, we report on the first year of its implementation and the months leading up to its launch, which occurred on February 7, 2011.

A key component of the platform’s social context is an initiative of the City’s community foundation called ACT for Alexandria, which serves as a catalyst for increasing charitable efforts in the community. ACT and the City of Alexandria helped raise funding for the development of the ACTion Alexandria platform from local nonprofit organizations and a Community Information Challenge grant from the John S. and James L. Knight foundation.

ACTion Alexandria seeks to “empower citizens to take collective action on behalf of themselves and local organizations” [2]. Its three stated goals are to:

1. Create a vibrant online platform that inspires offline action, where challenges are posted, solutions are debated, successes and failures are archived, data is both disseminated and captured, stories are shared, and essential civic relationships are developed.
2. Improve the quality of life for its most vulnerable residents in a cost-efficient manner through a platform that provides everyone a voice and the opportunity to identify problems and offer solutions.
3. Engage residents and business people in problem solving to strengthen community ties and increase each individual’s stake in creating positive outcomes for specific community problems.

ACTion Alexandria attempts to achieve these goals through a variety of mechanisms that help residents connect with local nonprofit organizations and government agencies. First, community members can seek out and complete *actions* – small donations of items, funds, or volunteer efforts that are posted by a local nonprofit or government agency. The “ACT Now” page (linked to from the homepage shown in Figure 2) allows people to browse and search through current and prior actions (see Figure 3). All actions can be listed and filtered by category (Arts & Culture; Education; Environment; Food & Shelter; Health; Neighborhoods), by neighborhood (of which there are 8), or keyword. By default, active actions are shown in a



Figure 2: ACTion Alexandria homepage, a civic action brokering website in Alexandria, VA.



Figure 3: ACT Now page showing search functionality and 2 active actions.

list on the page. If selected, a page associated with the action is presented with a description of the action and a “Take Action” button that can be clicked to initiate the next steps in the action (e.g., take the user to a donation website or an Amazon wishlist). Additionally, certain actions are chosen by ACTion Alexandria to be Featured Actions, which show up on the main page (in the spotlight panel on the left-hand side of Figure 2 and in the list at the bottom-left column) and at

the top of the ACT Now page, as well as in the email list and social media postings.

Second, residents and organizations can help brainstorm and vote on *ideas* to Community Challenges identified by ACTion Alexandria and the greater Alexandria philanthropic community. When users click on the “Share your ideas” link on the main page (see Figure 2) they are taken to a page listing all active *challenges*, along with the number of ideas already submitted to each one. Visitors can click on a specific challenge to see its description, deadlines for voting, and ideas posted by registered users. Registered users are given 3 votes per challenge to use on their preferred ideas. Users can also post comments associated with each idea. Ideas are sorted so that those with the highest number of votes are at the top.

Actions and *ideas*, as well as local events, such as in-person training for nonprofits, are promoted via the ACTion Alexandria website, Facebook page, and Twitter account, as well as emailed to a list of registered users who have opted in. Finally, residents and organizations can communicate in less structured ways by blogging (and commenting) on the ACTion Alexandria website, posting on the Facebook wall, mentioning the Twitter account, or talking in person at local meetings and events. The majority of these activities are managed on a day-to-day basis by the Community Manager with input from the ACTion Alexandria steering committee and other volunteers (e.g., bloggers).

METHODS

We chose to perform a case study of ACTion Alexandria for several reasons: 1) case studies are ideal for understanding phenomena that occur within a larger socio-technical system [14] such as a civic action brokering platform; 2) a case study approach bounds the research inquiry around the system of action that community managers and designers can influence; 3) case studies are also ideal for describing new and emerging phenomena, like civic action brokering, where little empirical investigation has been conducted to date [39]; and 4) case studies support an in-depth investigation of a phenomenon within an existing context, which leads to strong external validity of the findings.

ACTion Alexandria is an ideal case to examine for several reasons. First, the ACTion Alexandria platform brokers local civic actions in the form of what the site calls “actions” (e.g., donations of goods) as well as “ideas” (e.g., proposed solutions to known problems) allowing for a range of social practices and technical features to be examined. Second, in its first year, the platform successfully recruited over 2,000 registered users and 130 local organizations, helped raise over \$100,000, and collected thousands of donated items for local nonprofit organizations allowing us to identify some of the most effective components of the system and identify areas for further inquiry. Furthermore, ACTion Alexandria allowed the authors to collect qualitative and quantitative data beginning before the platform’s official launch. This

unique longitudinal dataset allowed us to focus on the critical first year of civic action brokering, which is when most online communities face their greatest challenges related to increasing participation [7].

Data for this project were collected as part of a multi-year evaluation of ACTion Alexandria conducted by a team of researchers at Brigham Young University and the University of Maryland. The data collection effort for the full research and evaluation of the project includes mixed methods approaches to collect data from a variety of stakeholders (organizations, local citizens, project management team members, local government officials) and sources (digital trace data, social media data, interview and survey-based data, meeting notes) during the life of the evaluation project funding (August 2010-August 2013). In this paper we have focused on a subset of the data most relevant to illuminating the key social and technical aspects of the action brokering platform in its first year, namely interviews with organizations and key stakeholders, surveys of organizations provided as an alternative to participating in an interview, and web and social media analytics.

Prior to the launch of the site (between December 2010-February 2011) we conducted: a) a phone interview with the Community Manager, b) face-to-face interviews with four organizations identified by the Community Manager as groups who covered a range of health and human services in the community, would likely be around for the duration of the project, and were candidates to be early Featured Actions once the platform launched, and c) phone interviews with three members of the city government from Health and Human Services and Communications.

After ACTion Alexandria was active for six months, it became clear that Featured Actions (discussed more later) were a critical socio-technical feature of the early implementation phase of the platform. We reached out to organizations who were Featured Actions early on and gave them the opportunity to participate in a phone interview or to complete a questionnaire with several of our interview questions in it. In Fall 2010, we invited the 10 organizations who had been Featured Actions to that date to participate. Five elected to participate via web questionnaire, and three participated via phone interview (these individuals were also part of our early case study organizations). Three chose not to participate. Six to eight months following this period, we then conducted follow-up phone interviews with a) the Community Manager, b) three of the four original case study organizations, c) seven additional organizations who covered a broader range of services in the City including a local PTA, a historic society, a seaport foundation and others, and d) a key stakeholder from the Community Challenge that had been launched during this time period.

Interview questions (used in both the interviews and the optional questionnaire) focused on assessing the impact of the platform on organizations’ actions and outcomes, effort, and time, as well as experiences of using the website, social

media, and interacting with the Community Manager. For example, those who had completed Featured Actions were asked to report on how their effort to promote the action differed from other methods they had used in the past; how the results compared to their expectations and prior experiences with similar actions. Organizations were also asked what features of the ACTion Alexandria website they considered most and least useful, what role the website and social media outreach play in the community, and what could be improved.

We used a concurrent triangulation strategy to analyze the data, collecting both quantitative and qualitative data simultaneously, collecting multiple iterations of qualitative data, and then analyzing all of the data as a set [11]. In this way the weaknesses of one method can be supported by the strengths of another and a more holistic picture of the system emerges. We analyzed, summarized, and visualized website and social media analytics data using Excel 2010, Google Analytics, Facebook Insights, Bitly, and Thrive (for Twitter analytics). We analyzed qualitative data (e.g., notes and transcripts from interviews, open-ended questionnaire responses, website content) using thematic analysis [8]. Two of the authors read through all of the transcripts and iteratively identified the themes to minimize biases. Once the major themes were identified and analyzed, we were then able to relate them to existing theories and literature in the findings and discussion sections that follow. We focused on the socio-technical aspects of the platform that were most strongly emphasized in the early implementation phase of the project and identified themes that highlighted successes and challenges for the platform moving forward.

Our findings were presented to key leaders of the ACTion Alexandria initiative who provided insiders' perspectives on the data and elaborated on issues that needed further elucidation. Tracy Viselli, one of the co-authors on this paper was a member of the ACTion Alexandria leadership team. At no point in the process did ACTion Alexandria leaders discourage the evaluation team from reporting on any of their findings or being candid with limitations related to current approaches.

FINDINGS

This section reports on the first year of civic action brokering via the ACTion Alexandria platform. First, we present summary data on ACTion Alexandria from web analytics tools. Second, we present major themes related to the social practices and technical features of Featured Actions, the primary mechanism used to broker direct *actions* through the platform. Then we present the major themes for Community Challenges, the primary mechanism used to broker *ideas* for actions. We provide evidence for the impact that these two key socio-technical features had on the success of the platform as a whole, and discuss lessons learned along the way.

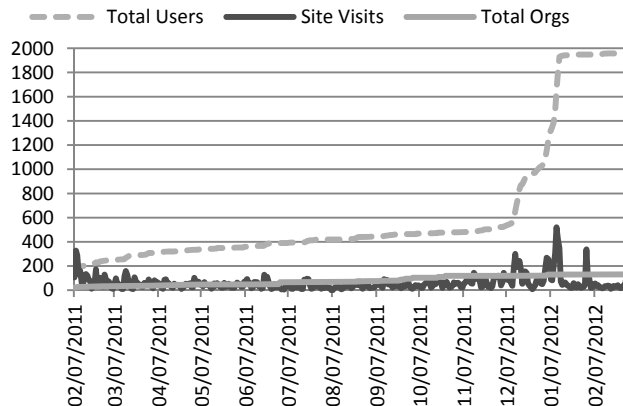


Figure 5: ACTion Alexandria registered users, organizations, and site visits over time.

ACTion Alexandria Summary Data

From February 7, 2011, to February 29, 2012, ACTion Alexandria accumulated a total of 1,963 registered members and 130 registered nonprofit organizations or government agencies. As shown in Figure 5, there was slow but steady growth from its beginning (with nearly 200 registered users in the first week) to mid-December 2011. This was followed by a month of rapid growth initiated by the Project Play Community Challenge (see Community Challenge section below), which ended in January of 2012, after which point growth continued to be incremental.

As is typical of voluntary contribution sites, users engaged with the site to varying degrees [31]. The website itself was visited 24,023 times by more than 14,621 unique visitors during this time (as reported by Google Analytics, which may overstate the number of unique visitors due to the use of different browsers and devices by a single individual). Over 9,402 of the visits (39%) were from visitors who had

been to the site before. As is typical, there is a skewed distribution where 2,493 return visitors have visited 2 times, 1,173 have visited 3 times, 741 have visited 4 times. This pattern has a long tail with hundreds of people who have visited over a hundred times, indicating a core group of people who visit the site regularly.

The percent of the 1,963 registered users who logged in each month ranged from 3% to 34% depending on the actions brokered in a given month. Table 1 shows the frequency of key activities that registered users performed on the ACTion Alexandria website. Figure 6 shows a Venn diagram indicating the number of people that participated in the 3 main sections of the website: blogs (they either posted a blog or commented on one), actions (they either created or responded to an action), and challenges (they either posted an idea or voted on an idea). As shown, most people only participate in a single section, though a handful of core members participate in multiple sections. The high number of unique actors (e.g., 282 action takers) versus total actions completed (e.g., 374 actions completed) shown in Table 1

Metrics	Total Actions	Unique Actors
Website Visits	24,023	14,784
Actions Taken	374	282
Blog Posts	242	50
Blog Comments	73	64
Ideas Posted	187	36
Votes Cast	5,440	1,120

Table 1: User ACTIVITY and number of unique ACTORS on ACTION Alexandria website (02/07/2011-02/07/2012)

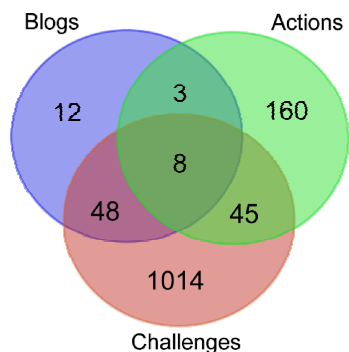


Figure 6: Venn diagram showing registered users' participation in 3 main areas of the website.

suggests that many people take only 1 action via the website (median=1 action taken). In contrast, a relatively small group of bloggers make many posts on average. Similarly, a small group of people post many ideas. Overall, there are around 100 active users who participate in multiple ways, with many others who rarely participate.

Of the 130 organizations registered on the site, only 71 (55%) have completed any actions (e.g., posted an action or blog post). This is due to the fact that many were registered by the Community Manager after getting permission from the organization, which will allow them to use the site more easily in the future.

Many people interacted with ACTION Alexandria via their Facebook and Twitter accounts. The Facebook page had an initial spike of fans, followed by steady monthly growth at an average of 20 new fans a month culminating in 464 fans as of February 29, 2012. According to Facebook Insights data collected since October 2011, the Facebook page averaged 176 contributions by engaged users (e.g., mentions, likes, shares) and 76 discussions (i.e. people talking about ACTION Alexandria) per month. ACTION Alexandria's Twitter account had 1,159 Followers as of February 29, 2012. It spurred 2,222 retweets, mentions, and replies during the first year with an average of 156 per month for the period after its initial announcement. These led to a total of 5,085 clicks on links embedded in the Tweets (according to Bit.ly), with an average of 222 per month for the period after its initial announcement. Taken together, it is clear that much of the

brokering occurred via social media channels, though the website and email list also played important roles.

Actions and Featured Actions

Actions, a designated term for small acts of service such as donating goods and money or volunteering one's time, are one of the core elements brokered by the ACTION Alexandria platform. Local nonprofits or government agencies (i.e. action providers) sponsor actions, and community residents (i.e. action seekers) complete them. Actions typically require small contributions from a large number of Action Seekers over a short period of time (usually one week) to meet an immediate need. Actions are often in the form of small monetary donations, specific items such as diapers or Pedialyte, or one-time service opportunities. Any organization using the ACTION Alexandria system can post actions, which can be searched for by topic on the website. During the first year, a total of 61 actions were submitted. Most of the actions were not particularly successful, averaging only 6 action takers (median=2) as recorded on the website. This is likely due to the small number of active participants on the website itself, as opposed to other components of the platform (like social media). The word-of-mouth and viral marketing efforts were considerably lower for actions as opposed to Featured Actions, which were facilitated and promoted by the Community Manager in the project's first year.

Featured Actions are week-long campaigns that seek to meet an urgent community need identified by a local nonprofit in conjunction with the Community Manager. Often the Community Manager helped identify a corporate sponsor who matched funds for items raised by the community. Featured Actions were promoted via the ACTION Alexandria homepage, email list, Facebook page, and Twitter account, as well as by the organization sponsoring the specific Featured Action.

An example Featured Action campaign was a diaper drive for Community Lodgings, a local nonprofit dedicated to helping families exit homelessness through transitional and affordable housing and through youth and adult education programs. Community lodgings sought to raise 640 disposable diapers (a one-month supply) in one week to provide to the families they work with. By the end of the week, community members had donated 2,500 diapers to Community Lodgings, nearly 4 times the requested amount.

A total of 14 Featured Actions (including an annual Spring2Action online fundraising drive) were promoted during the first year of the project (23% of the total actions). These were far more successful than non-featured actions. They averaged 19 responses (median=21) and in total community members contributed \$115,680 in online donations and 3,720 items (valued at \$4,338) to City of Alexandria nonprofits, making the overall donation total \$120,018. Donated items included medicine, food, diapers, children's books, and toys.

Based on the number of items collected, money raised, and services provided, there is no question that the Featured Actions were successful and a critical component of the platform in its early implementation phase. All but one of the Featured Actions promoted in the platform’s first year met or exceeded their goal. Featured Actions through ACTion Alexandria enabled some nonprofits to accomplish more than they would have on their own (e.g., one questionnaire respondent stated that “[we] generated more donations than a typical email blast or other drive that we would have put together ourselves.”). Several of the Featured Action nonprofits mentioned that they would not have launched a campaign like the one they launched for the Featured Action had it not been for ACTion Alexandria. This was particularly the case because many nonprofits did not have the technological sophistication and experience to perform online action-based initiatives (e.g., one interviewee stated that “[ACTion Alexandria] provided something that we really couldn’t bring to the table.”).

Community Manager Time and Expertise

The role of the Community Manager was critical to the success of Featured Actions. Because this form of crowdsourced charity mediated by a web-based system was new to most organizations, it was not always clear to them how to craft a Featured Action that would appeal to residents. The Community Manager was able to use her experience to help organizations scope out and frame strong campaigns in this new online context:

“[The Community Manager] was extremely helpful in helping us create an action that would be well received by the public. She also helped us choose a goal that was attainable and was supportive during the length of the campaign.” (Featured Action questionnaire respondent, Fall 2011)

“I was talking with the city about a need that we have in terms of providing resources to some of the vulnerable families that we serve and I was like wow, we should talk to [the Community Manager] and see if we can get an action [featured]...” (Non-case study interview, June 2012)

In addition, resource-poor organizations benefited from the Community Manager’s help in developing promotional materials, getting matching funds from corporations, which were highly valued by the organizations, and coordinating the launch of the action. This all made the cost of participation low for organizations, despite the “extra work” needed to coordinate with the Community Manager, which was not part of their regular workflow. It was clear from the interviews and comments that without the Community Manager’s heavy involvement many of the Featured Actions would not have occurred and would otherwise probably not have been as successful as they were.

Quantitative results tied to the actions support the importance of the Community Manager’s ability to help craft and

promote actions and Featured Actions. The Community Manager posted 23 actions (14 of which were featured). These averaged 13 responses (median=10); far greater than the average of 2 responses (median=1) for actions posted by others. Even the 9 non-featured actions posted by the Community Manager outperformed actions posted by others (average of 5 responses; median=3 compared to average of 2 responses; median=1). Table 2 summarizes best practices used by the Community Manager. While other techniques may also work, these were sufficient to have a high success rate.

Last for a short duration (e.g., one week)
Focus on a single, well-defined and measurable goal (e.g., X number of diapers, Y dollar amount to go towards Z)
Allow contributors to make micro- and macro-contributions (i.e. no contribution is too small)
Clearly demonstrate how it will benefit the organization and the individuals it serves
Relate to a popular need that resonates with the public (e.g., oriented around children)
Be a joint effort between the organization sponsoring the action and the action broker (i.e. ACTion Alexandria)
Have matching funds from a corporate sponsor to increase incentives for organizations to participate.

Table 2: Featured Action Best Practices

Leveraging ACTion Alexandria’s Social Network

ACTion Alexandria helped organizations extend their reach to a larger network of residents via the Featured Action emails and promotion on Facebook and Twitter. This helped the organizations reach their goals quicker while also making more people aware of the organization. Thus, the messages from ACTion Alexandria complemented the work the organizations were already performing via their own outreach methods, which ranged from email lists to social media to on-the-ground outreach via church congregations and events.

Organizations that were smaller or less well known for other reasons (e.g., they were new) had the most to gain from being featured, since their existing network was limited. The following comments from two different nonprofits we interviewed illustrate this point:

“We wouldn’t have had the capacity to do it on our own. We don’t have the network of people to put it out to. [...]Our listserv is not nearly as pervasive as the one that ACTion Alexandria has.” (Case study follow-up interview, June 2012)

“The biggest impact was [the Community Manager] being able to get the word out. We just have a sense that more people are aware of us now.” (Case study follow-up interview, June 2012)

Growing ACTion Alexandria's Social Network

ACTion Alexandria also extended its own network as a result of the Featured Action mechanism, because the sponsoring organizations helped provide a continual source of new members to the site. Nonprofit organizations promoted their own actions through whatever existing channels they had including email lists, newsletters, social media accounts, contacts at religious organizations, etc. Inevitably, this reached many people not yet part of ACTion Alexandria. Those who learned about the action were taken to ACTion Alexandria's website where there was a detailed description of the action and a plea to register and click "Take Action", directing the resident to an Amazon wishlist, donation button, or other appropriate link. Website analytics and registration dates make it clear that Featured Actions accounted for the majority of the steady, if small, growth in membership throughout the first year. Unfortunately, this model was difficult to completely enforce, as nonprofit organizations could post a different link to their donation page and the nature of the action could make tracking it online difficult (e.g., delivering books in person). There is a balance that must be made between the desire to make actions as simple as possible to complete and the desire to extend the resident network associated with ACTion Alexandria.

Competition in the Nonprofit Sector

When pressed to identify concerns about the platform, nonprofits mentioned competition as a potential issue when interviewed before the launch. For example, some organizations expressed reservations about the idea of Featured Actions because they feared that it might unfairly privilege some organizations over others. Nonprofits often compete for the same scarce resources and, as a broker, ACTion Alexandria has the potential to drive attention and resources to one organization over another. A case study interviewee expressed concerns of "donor burnout" and wondered if all the nonprofits could get what they needed out of "a diminishing or exhausted pot [of funding and resources]."

Though several organizations mentioned concerns about this before the site was launched, they still felt like the opportunities would outweigh the risks, particularly if ACTion Alexandria was fair in the way they chose who to feature. In follow-up interviews, nonprofits indicated that competition had not arisen due to the use of Featured Actions, though we primarily interviewed organizations who had been featured, so it is possible other non-featured organizations felt otherwise.

Members of the ACTion Alexandria steering committee did not see the competition concern explicitly expressed by

nonprofits, but noted that some organizations were hesitant to drive their constituents to the ACTion Alexandria website because of the extra work involved or due to fear of losing their own website traffic. Because the initiative was so new in this first year, the demand from nonprofits was not significant, as indicated by the need of the Community

Manager to actively solicit nonprofits to partner with on Featured Actions. However, as ACTion Alexandria becomes more prominent, this issue will likely need to be revisited.

Technical Capabilities of Donor Tracking

A second concern about the platform was the difficulty that organizations had using it to track donors or to synchronize their other tracking tools with the information coming in as a result of being a Featured Action. One government official mentioned the ability to track and evaluate community impact as a key feature she hoped for in the platform:

"...if we could track where we are now in terms of numbers and citizens who interact with the government versus where we are a year after we've fully launched with ACTion Alexandria, because once again that one notion is key – when we've reached the 'non-usual' suspects and get new ideas." (Government, pre-launch interview)

Unfortunately, tracking donors and volunteer time among the variety of organizations and features of the system remains a challenge for the platform. Organizations commented on the challenges that they had trying to combine their current systems (like Amazon.com wishlists) with the ACTion Alexandria platform:

"[We were] not able to track the actual donors. Donors made a donation using Amazon's wishlist and we did not receive their contact information. When [we] logged in as the administrator [in ACTion Alexandria] we saw names of anyone who clicked on the action, but they did not necessarily purchase a book [for the book drive]." (Featured Action questionnaire respondent)

Civic action brokering platforms should carefully consider the importance of developing tracking technologies that might integrate with common web-based donation tools that organizations and governmental agencies are already using, as this is a key part of a nonprofit's overall workflow and efforts and may lead to increased adoption of the system over time.

Sustainability of Featured Actions Moving Forward

One downside of using the Featured Action mechanism was that it drew so much attention toward the actions that were featured that other actions posted on the site by organizations went largely unnoticed. As mentioned earlier, non-featured actions had very few if any respondents. Also, some organizations that were used to receiving assistance from the Community Manager in crafting and promoting their Featured Action were not interested in creating their own non-featured actions on the site. Indeed, several organizations did not know that actions and Featured Actions were different.

While additional training and familiarity may alleviate this issue, the prominent use of Featured Actions may obscure the use of regular actions or set up the expectation that the Community Manager needs to be heavily involved with all actions leading to sustainability issues down the road. The

limited time of the Community Manager created a bottleneck that restricted the number of Featured Actions that could be promoted in a given month (e.g., Action Alexandria averaged 2 per month). Additionally, people have a limited amount of attention, which also limits the number of actions that could be featured even independent of the Community Manager's time. Training organizations to develop their own successful actions and take on more of the responsibility of running Featured Actions will be essential for the future sustainability and growth of ACTion Alexandria and is something for all civic action brokering platforms to be concerned with. Additionally, providing organizations with mechanisms to target non-featured actions to registered users who have interests in their organization may help as well. ACTion Alexandria has a notification system that allows people to "follow" an organization and get updates such as new actions tied to the organization, but was not widely promoted or used during the time of this study as it required extra effort from the user to set up.

Community Challenges and Ideas

Another core activity of ACTion Alexandria is brokering *ideas* that address community-wide concerns or opportunities. A space for citizens to generate and respond to ideas was of great importance to the local government and organizations before the launch of the platform. In particular the web-based platform was seen as a tool that might encourage voices that were otherwise missing from city meetings to participate in the local civic discourse:

"That's always, I think, something that we work really hard to do and I think sometimes puzzles us and confounds us is getting those unheard voices to the table. For years, you try to get kids to the table, to get youth and the parents of the youth in the city to speak up and to become part of the solution and that's, you know, it's always how do you get there? How do you get to them?" (Government interview, pre-launch 2010)

The Community Manager, in conjunction with the local nonprofits and government agencies, identified a problem or issue that could benefit from community input. The Community Challenge was posted to the website, outreach (online and offline) was conducted, and residents shared their *ideas* for solutions on the website. Next, a voting round occurred, which helped identify the best (i.e. most popular) submitted ideas. The Community Manager followed up and appropriate steps were taken based on the top ideas. During the first year, ACTion ran 13 challenges, which solicited 187 ideas from 36 different people (average of 14 ideas per challenge) and 5,440 votes on those ideas by 1,120 people (see Table 1). Initial challenges were seeded with ideas from the Community Manager, while later challenges solicited ideas from residents.

Community Challenge topics varied dramatically from having residents propose ideas to make Alexandria a more sustainable community to provide feedback on a new set of community quality of life indicators. The Challenge with the

highest level of participation had residents nominate a playground that would receive a \$15,000 Spruce Up grant from Project Play, an initiative put together by the Community Manager and several local organizations, with the goal of ensuring that "every child in Alexandria has a quality space to play." A total of 22 ideas were submitted by residents who posted detailed descriptions of why a particular playground warranted the grant and included photos to help tell the story. The leading ideas received over 1,000 votes, helping identify potential playgrounds with wide community support.

Initial Challenges did not solicit as much input as later ones, likely because awareness was greater later in the year and because of the nature of the challenges. The Project Play challenge, which was run in December of 2011 showed the potential of Challenges and was directly responsible for the site's highest increase in registered users by far (see Figure 3). It led to over 4,000 votes from 1,000 participants in under a month. All the voting was conducted through the ACTion Alexandria website. At the time of this study, it was not clear if the new members who joined in order to vote would translate into a larger number of people taking other actions or submitting other ideas. However, the Community Challenges increased the total community investment in 2011 to over \$210,000 through the addition of \$92,500 in grant money that was brought to the table through collaboration fostered by Community Challenges, particularly via Project Play.

Role of the Civic Action Brokering Management Team

The successes of the Community Challenges were largely a result of the ACTion Alexandria management team's connections, insights, and efforts. Since 2004, ACT for Alexandria, the primary sponsor of ACTion Alexandria, has promoted philanthropic activity through training and organizing the nonprofit and government sector in Alexandria. For example, they sponsor an annual Spring2ACTION event where they bring together nonprofit and local government organizations to network, share best practices, and teach new skills such as how to effectively use social media. Those skills are then put into action during a competitive, community-wide fundraising drive.

ACT steering committee members and the Community Manager sit on many community councils, participate in town hall meetings, and interface with the local government. Because of these endeavors, ACT for Alexandria, and by extension ACTion Alexandria, enjoyed a great deal of social capital among the philanthropic community as evidenced by the very positive comments from interviewees. Indeed, most interviewees did not differentiate between ACT for Alexandria (the parent organization) and ACTion Alexandria (the initiative centered on the website, social media initiatives, and community manager) as they discussed the merits and challenges of the platform.

ACT for Alexandria's pre-existing position as a network hub among the Alexandria nonprofit community placed its

steering committee, including the ACTION Alexandria Community Manager, in an ideal position to help broker and aggregate actions among residents and organizations. Their panoramic view of the entire community-giving and volunteering network in Alexandria allowed them to see problems that nonprofits shared as well as opportunities for collaboration. ACTION Alexandria Community Challenges acted as a podium for nonprofits to draw attention to some larger social issues in the community, while at the same time getting fresh ideas from residents who could directly contribute their feedback.

The Project Play Community Challenge discussed earlier is an example where ACTION Alexandria’s Community Manager helped broker a partnership between three local nonprofits that had not worked closely together before. The initial success of the challenge led to a continued partnership among these and additional nonprofit organizations and the city government officials via the Project Play Task Force. This group met regularly to improve playground policies, seek foundation funding, and coordinate joint activities. One interviewee who served on the Project Play Task Force described the benefits of having ACTION Alexandria serve as a broker in these words:

“An interesting outcome with ACTION [Alexandria] is that we’ve learned a lot about additional community collaborations that we didn’t know of before, particularly with several PTAs.” (Community Challenge interviewee, March 2012)

A Competent Community Manager

As with Featured Actions, the Community Manager was critical in framing Community Challenges so they would resonate with residents and generate enthusiasm and ideas.

Popular challenges tend to be ones where there is a “winner” associated with the ideas that are generated through a process of community voting.
Community Challenges work well when they are sponsored by a project that spans multiple organizations and focuses on a social issue rather than a specific organization (e.g., childhood obesity, teen pregnancy, or affordable housing).
The topic should be something that affects many people in the community or be something that many people in the community care about.
Challenges last longer on the site (one to two months) and culminate in a week-long voting period by community members.

Table 3: Community Challenge Best Practices

Table 3 outlines some best practices for Community Challenges derived from interviews with the Community Manager and the researchers’ comparison of the various challenges run in the first year. The importance of having a competent Community Manager that nonprofits trusted cannot be overstated. A large part of the success of the ACTION Alexandria project resulted from crafting a

meaningful Community Manager role (Table 4) and hiring an experienced, enthusiastic, full-time person to fill it.

Creates and posts actions, community challenges, blog posts, Tweets, Facebook wall posts, events, and other community information.
Identifies actions that fulfill an urgent human service need in the community and works with a nonprofit partner to run a week-long Featured Action campaign to meet a specific goal (100 books, 640 diapers, \$500 for a room renovation at a shelter, etc.).
Identifies community problems ripe for citizen-sourced solutions and posts them as challenges to the community on an ideation platform.
Continually conducts community outreach through a variety of methods both online and offline.
Manages most aspects of the website and public relations (website administration, community organizing, email marketing, editorial content, sponsorships, organization partners, marketing, etc.).

Table 4: Community Manager Role at ACTION Alexandria

Interviewees described the Community Manager as “amazing”, “delightful to work with”, “helpful and accommodating”, “knowledgeable about social media and “willing to share.” The following quote describes how the Community Manager helped make one Community Challenge a success:

“I’ve been working pretty collaboratively with [the Community Manager]. We talk about it ahead of time; about the kinds of information she thinks will be useful, the kinds of information I think will be useful, the timing, and then I try to send her information and then she sort of translates it to the website.” (Community Challenge interviewee, March 2012)

One challenge with having a Community Manager that is so central to the successful operation of civic action brokering is that it introduces a single point of failure. If a Community Manager without the right skillset is hired, the credibility of the entire civic action brokering system can be jeopardized. Additionally, relying on a single Community Manager to take on too many responsibilities may lead to burnout or a lack of scalability.

Increasing Capacity through Social Media

Another key factor leading to the success of the Community Challenges, similar to Featured Actions, was the effective use of social media. Indeed, social media is the kind of tool that several interviewees said they wished they used more effectively, but did not have the time or capacity to do well. Because Community Challenges required large amounts of participation in order to be successful, strategic campaigning through social media greatly increases the word-of-mouth communication about the challenge and drives people to the website. In this way, ACTION Alexandria filled a critical gap for its community of nonprofit and government agencies.

Raising Awareness

The benefit of a Community Challenge in particular was that it allowed organizations to get input from residents early in a project and build an audience around an issue that might not otherwise have existed. Not only were Community Challenges useful for getting the word out about ACTion Alexandria and increasing its membership, but they were useful for raising awareness about social issues in the community. The following comment from an interviewee involved in the Project Play challenge highlights this finding:

“The awareness piece is raised and we have at least some audience to spread information out about our play equipment and sort of the next steps... It will be interesting to see whether and how we can mobilize that to a greater degree... It’s another forum for spreading information to the public.” (Case study follow-up interview, June 2013)

DISCUSSION

Nonprofits and government agencies at all levels in many nations are increasing their use of social technologies as a way to reach members of the public in new locations, extend government services, promote democratic participation and engagement, crowdsource solutions and innovations, and co-produce valuable community resources [5,21,30]. Despite the well-articulated potential benefits of civically-oriented social technologies, few studies have empirically demonstrated success. Some even argue that the Internet has had an overall negative effect on civic engagement so far [6].

This paper characterizes a promising approach of civic engagement as *civic action brokering*, calling for socio-technical platforms that are explicitly designed to broker between Action Seekers (i.e., volunteers) and Action Providers (i.e., organizations and individuals with ideas for improving the human condition). It is in line with earlier calls for technology that better supports connectedness within civic networks [35,36], though our focus on civic action brokering platforms is unique. Having said that, many prior studies can be viewed through the lens of civic action brokering.

Prior work on information exchange systems such as Barter [33], or public deliberation sites tied to civic action (e.g., public ballot initiatives) such as ConsiderIt [25], fit well within the construct of civic action brokering, though ACTion Alexandria’s experience suggests new strategies to broker more than just ideas. The benefits that ACTion Alexandria received as a result of being a civic action brokering hub are consistent with earlier work that suggests that online spaces that support local communities are most viable when they cover a range of topics [28]. Work on technologies that support fundraising (including matching up potential donors with nonprofits, teaching to use online tools, and enabling individual and community advocacy [16]) and crowdfunding also fits well within the civic action brokering construct, though they address just part of the potential scope of action brokering as discussed earlier. Indeed, the success of ACTion Alexandria’s Spring2Action event suggests that

civic action brokering platforms are particularly well suited to help with community-wide fundraising efforts and may want to partner with crowdfunding sites.

There is still opportunity to expand and engage a broader conceptualization of what a civic action brokering platform could be by considering the role that *all* citizens of a community can play in the distribution of goods, services, and ideas. This includes considering the role of the beneficiaries of actions; often groups who identified as vulnerable or who may be marginalized. We raised this question to our case study organizations in pre-launch interviews and the following quote highlights a number of obstacles that stand in the way from a social norms perspective that should continue to be addressed by the CSCW community:

Researcher: The last question I have is do you imagine any direct involvement of your constituents here, of the families that are staying here [at the shelter], with some kind of system like ACTion Alexandria?

Interviewee: I don’t know if they would post their needs. I don’t know. That’s a good question. Because most of the protocol is that you have to go through an agency to get anything, because there’s a safeguard in that to some extent, because nobody’s abusing it. I don’t know. That’s interesting. I guess we could certainly send our clients over to our computer lab and say go to ACTion Alexandria, pick out what you want and then tell them what you need. It’s almost empowering, which is really what we want to do with our clients because they’re supposed to be self sufficient. ...but you know then that might be a mistake, I don’t know. ...To open it up to everybody. Whatever they want they could come get it from ACTion Alexandria... there might be a level of entitlement there. (Case study interview, pre-launch)

While overall, we believe the first year of ACTion Alexandria was a success, the experience raised several socio-technical design challenges that will need to be addressed by civic action brokering platforms more generally. First, as discussed, a heavy reliance on a Community Manager and the limits of human attention make scaling up the number of actions and challenges difficult. This may become even more of an issue for civic action brokering platforms that work with larger groups than a single city. Second, once civic action brokering platforms are well recognized and sought after by nonprofits that want to partner, the competitive nature of philanthropy must be dealt with in a reasonable or even mutually beneficial way. Mechanisms will need to be designed to address fairness (e.g., which nonprofit is featured) and create win-win opportunities for nonprofits who collaborate (as the Project Play example demonstrated are possible). Third, strategies and tools that foster continued engagement among initial participants are needed (as discussed in [31] more generally). As mentioned earlier, most participants only visited the ACTion Alexandria site once and participated in a single

aspect of the site. Strategies such as transitioning winning ideas into Featured Actions may help users learn about and become more active in different aspects of the site. Finally, civic action brokering technologies must integrate with tracking tools already used by nonprofits. Otherwise, they risk being perceived as “extra work” to implement, as well as fail to demonstrate the value of the brokering relationship.

Any approach to addressing these challenges must consider the entire socio-technical system. Indeed, throughout this paper we have talked about “design” in the broad sense of the term, focusing on social relationships, technologies, and ways of structuring activities, all of which are intertwined. The novelty of ACTion Alexandria derives not so much from the specific technologies employed, as from the unique way of organizing activity into a civic action brokering platform, both in person and via online tools. Having said that, ACTion Alexandria has only slowly come to recognize their unique role as a civic action broker, and there are ample opportunities to design tools and activities and social structures that will explicitly support this function.

This paper presents a first step in understanding how to effectively support civic action brokering, particularly during the first year. Some of the practical takeaway messages derived from the case study include:

- Define the role of Community Manager and hire someone experienced with the requisite skill-set including the ability to act as a social network hub and community organizer, perform effective online (e.g., social media) and offline outreach and fundraising, and identify and frame opportunities for collective action and idea generation.
- Leverage organizations with existing social capital when launching new web-based initiatives for civic action brokering.
- Provide initial support for nonprofits that need help in crafting compelling and achievable campaigns for *actions* and *ideas* that will work in an online environment.
- Create win-win network-building opportunities where organizations and civic action brokering networks promote actions and ideas, and in so doing drive their own networks toward the other in a virtuous cycle. Starting with popular actions and ideas with well-known sponsoring organizations may be especially important in the early implementation stage.
- Broker actions and ideas between different nonprofits, as well as between nonprofits and residents.

ACTion Alexandria succeeded in part due to the fertile conditions it was planted in: the willingness of the local government to help fund the project, the leadership of an existing non-profit brokering organization, and the exceeding generosity of the people of Alexandria. Local communities without such support may prove too barren an environment for civic action brokering through web-based systems to

thrive, even if such communities are the ones with the greatest need for it.

It should be noted that this paper only reviews the first year of the initiative, so these results, no matter how promising, are still early results. Subsequent years may reveal a new set of strategies necessary to successfully broker civic actions in a way that is scalable and sustainable over time. Future research will need to elucidate the changes in approach made by ACTion Alexandria, as well as other models of success from different platforms. Though our current understanding of civic action brokering is in its infancy, we hope the experience of ACTion Alexandria and the new theoretical focus will help inspire additional platforms designed to meet the needs of residents and service providers alike.

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