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Becoming Citizens: Youth E-engagement in Civic and Public Policy

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Young Americans are largely disengaged from civic life, especially when considering traditional measures like faceto-face participation in neighborhood activities. However, an increasing number of the youth are technologically savvy, as evident in daily use of online forum and a wide–spectrum of electronic means including ipods, ipads, iphones, emails, video, virtual reality, the Internet facebooks, twitter, etc. This research investigates ways to harness youth's powerful online social networking into public voice, political activism, and community-based participation.

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Executive Summary

Youth utilize powerful new technologies and social media in a variety of significant ways. This research investigates how new technologies and social networking platforms can potentially be used to connect youth to political and civic causes, increase youth's public voice, and encourage community-based participation among youth. Technologies and social media may be of particular importance to organizations working with youth as they can serve as a tool to reengage youth, who on the whole, are less engaged in traditional forms of political and civic engagement than other cohorts.

This research undertook multiple inter-related but non-linear activities. The involvement of multiple researchers allowed for timely completion of the tasks summarized in the following three sections: literature review, field and empirical work, and digital application. Working in concert, the three sections shed light on current applications of technologies and social media, potential obstacles in their adoption, and benefits that may accrue be through their use.

First, a literature review explores changes in political participation patterns among youth, existing applications of information and communication technologies (ICTs), and highlights potential advantages and disadvantages to their use. Internet use has long been the most useful source of political and issue based information for youth, surpassing traditional sources of information including television, newspapers, and personal conversations (Project Vote Smart 1999 in Carpini 2000, 346). This, coupled with the knowledge that youth are more likely to participate in online politics than in traditional politics points to online forms as an important way to counteract downward trends in youth political and civic engagement (Gibson, Lusoli and Ward, 2005 573). This report identifies several such cases exemplifying current applications of diverse technologies including email, text messaging, websites, social media, GIS, which engage youth in a variety of programs. While the outcomes of these programs vary, the case studies and research suggest that online and technology based forms of engagement are often effective, but organizations must be aware of the technology gap which may limit the engagement of low-income and minority youth.

To better understand the advantages and disadvantages of the electronic tools and ICTs, researchers interviewed representatives of seven youth-oriented organizations. These community-based organizations work with youth in a range of initiatives such as political education, after-school education, gang-free spaces, crime intervention and prevention, arts and media. The organizations represented in this study use new technologies and social media to varying degrees but all noted the fundamental importance of including new eengagement techniques to better communicate with their youth constituents. Interviewees cautioned, however, that new forms of e-engagement should be coupled with face-to-face communication and other traditional means of interaction to ensure the quality and authenticity of the political and civic participation.

Adding to existing examples, the Urban Data Visualization Lab (UDVL) at the University of Illinois at Chicago constructed a 'game,' using Geographic Information Systems (GIS), to engage youth in real world political issues such as ward redistricting. The interactive model allows students to suggest new ward boundaries and then shows the impacts of their inputs such as shifts in population totals, demographic composition, and political strength. Focus group testing of the game led to constructive feedback, which will make future versions of the game even more appealing and engaging for youth. Overall, the game symbolizes applications of new technologies, particularly GIS, and offers an exciting example of the potential for alternative media forms of engagement.

Each section of this report advances existing research on youth political and civic engagement through new technologies and social media. In particular, interviews conducted as part of the research and presented within the report provide new case-study examples of the positive and negative outcomes of the application of e-engagement. Additionally, the game serves as a practical example of the digital applications for e-engagement. Themes in the study overall suggest that youth participation in political and civic engagement maybe lacking in traditional forms, new technologies and social media provide a viable avenue to re-engage youth through a wide range of applications. However, these efforts must be undertaken carefully and technologies must be as applied as equitably as possible and be coupled with traditional, face-to-face interactions. Each section of the report expands on the potential for e-engagement and highlights potential avenues for future research.

Section I: Literature Review

Becoming Citizens: Youth E-engagement in Civic and Public Policy

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Young Americans are largely disengaged from civic life. According to Michael Carpini, "the extent of this disengagement and the 'participation gap' between young and old are far greater today than in the past" (2000, 343). However, an increase in Internet use among young adults is reshaping political participation and civic engagement through the creation of a "new communication environment" (Carpini 2000, 346).

Access to the Internet, however, and in turn, this new communication environment, is not equal and presents a barrier for low-income youth, and particularly African-American and Hispanic youth:

At the end of 2001, only about 14 percent of children living in low-income families were using the Internet at home, compared with 63 percent of children in families earning more than \$75,000 per year. With respect to race and ethnicity...50 percent of non-Hispanic white kids used the Internet at home in 2001 compared to only 25 percent of African American children and 20 percent of Hispanics. (Wilhelm, 2002, 297)

Researchers have highlighted a professional and moral imperative for involving youth in planning and community development decisions stating, for instance that "for community development and city planning professionals, engaging the public, including youth in meaningful participation is a prerequisite to good practice" (Santo, Ferguson, and Trippel 2010, 52). This moral imperative should be expanded to involve youth who are least likely to be engaged. Researchers have argued that youth, and particularly urban youth of color, are isolated, disempowered, and stigmatized and are therefore 'doubly marginalized' in planning practice (Ginwright and James 2002, Dennis 2006). However, Gibson, Lusoli and Ward found that barriers that exist to more active forms of participation in the offline political sphere (e.g. contacting, joining a rally etc.) were not present for those of lower education and class status in the online political sphere (2005, 562).

According to Santo, Ferguson, and Trippel youth can benefit from participating in community planning through "the development of specific technical skills and general social skills, as well as the opportunity to practice democracy" (2010, 53). The community at large benefits from the intergenerational exchange of information which occurs when youth are engaged and which is "essential for creating sustainable communities" (Santo, Ferguson, and Trippel 2010, 53).

It has been more than a decade since Carpini questioned the potential role of the Internet in involving disengaged youth: "The most difficult group to reach are those who are neither engaged nor clearly motivated. Since motivation (interest, attention, efficacy, and so forth) is the sine qua non of participation, the question is whether the Internet can be a useful means for increasing these attributes among young adults" (2000, 348). Since then, research has focused on a number of different technologies in the application.

A 1999 survey reported that youth saw the Internet as the most useful source of political and issue information, surpassing television news, newspapers, radio, magazines, personal conversations, and direct mail (Project Vote Smart 1999 in

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Carpini 2000, 346). Pasek, More and Romer found that use of the Internet for information was positively related to civic engagement (2009, 207). The importance of the Internet as an information source has been supported by research showing that the gathering of information online has been positively linked with the production of social capital: "Tolbert and McNeal (2003), reported that actual use of the Internet did serve as a stimulus to voting, in particular those who used the medium for information gathering were significantly more likely to vote" (Gibson, Lusoli, and Ward 2005, 565). Individuals who frequently use the Internet for information are more likely to participate in offline clubs and groups and to demonstrate high levels of political knowledge (Pasek, More and Romer 2009, 207).

According to Rohe (2004) civic engagement and social capital can be seen as a 'self-reinforcing model': "civic engagement begets new relationships, new relationships lead to greater trust, and trust leads to effective collective action and then to individual and social benefits, which in turn can lead to continued civic engagement and effective collective action" (in Mandarano, Meenar and Steins 2010, 125).

Online Political Engagement

In general, youth are more likely to participate in online politics than in traditional politics. Gibson, Lusoli and Ward report that: "young people's rates of engagement in online politics far outstrip their engagement in more traditional forms. While only 10 percent have acted politically in an offline context, a full 30 percent of those aged 15-24 years of age have engaged in any form of online political activity" (2005, 573-4). Social media, such as Twitter, Facebook, and MySpace have played a role in increasing levels of participation among youth. For example, a 2010 Pew Research Center Study found that Twitter use was highest among young adults, minority users, and urbanites. Internet users ages 18-29 were significantly more likely to use Twitter than older adults. African-Americans and Latinos were more than twice as likely to use Twitter as were White internet users, and urban residents were roughly twice as likely to use Twitter as rural residents. In addition, the authors reported that women and the college-educated were also slightly more likely than average to use Twitter (Smith and Rainie 2010, 4). Research on the relationship between social capital and online use of social network sites such as MySpace and Facebook found that online social networking was strongly related to offline civic engagement (Pasek, More, and Romer 2009, 207).

Gibson, Lusoli, and Ward found that women and those from poorer backgrounds—while less likely to participate in more activist politics offline or to contact organizations online—are equally likely to engage in online politics as men and higher social status individuals, once existing levels of political involvement and experience on the Internet are taken into account. The researchers found that youth are significantly more likely than their older counterparts to engage in online politics, holding other variables constant (2005, 578). Interestingly, Gibson, Lusoli and Ward also identified a small subset of individuals (n = 25) who engaged only in online politics, while remaining disengaged from traditional offline politics. This subset's demographics are notable in that they are more likely to come from younger age groups and be of a lower social grade (43 percent from lowest social grade) (Gibson, Lusoli, and Ward 2005, 574).

Participation on the Internet does have the potential to increase youth political involvement (Kann, et al. 2007, 6) and may provide a tool to address declining civic engagement (Pasek, More and Romer, 2009, 210) since the Internet is

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integrated into youths' everyday life experiences (Vromen, 2008, 80). Based on their findings, Gibson, Lusoli, and Ward believe that the Internet "facilitates a new and easier path towards political engagement among those less active or not involved in conventional politics" (562).

Technology/Methods of Engagement

There are approximately ten free Internet tools that can be used to support planning practices including: Web sites, e-mail, web-based survey, social networking sites, Wikis, video sharing, mashups, crowdsourcing, virtual meetings, texting/SMS, blogs/micro-blogs, and RSS (Mandarano, Meenar and Steins 2010, 126-9). Political text messaging, for example, has become increasingly popular, as Kann, et al. report that, "Only 15 percent to 25 percent of solicited political e-mail messages are opened but approximately 95 percent of text messages are opened" (2007, 5). Tulloch argues that online participatory spatial activities, which might range from GPS art¹ to a grassroots-generated open source street dataset² "demonstrate the sort of energy that the Internet can focus upon participatory spatial activities...and will result in a new form of democratization" (2007, 8).

Bristol, a city in the U.K, is the first to develop an e-citizens panel called askbristol.com; and to try out 'e-Decide', an easy to use deliberative-polling tool (Hilton 2006, 416). Hilton found during an e-enabled consultation, 'Height Matters', that "the demographic of the respondent group shifted. Whereas planning-based consultations are often seen to be dominated by older, professional respondents, the Height Matters consultation attracted its greatest response from those in their 20s and 30s" (Hilton 2006, 421).

Public Participation Geographic Information Systems (PPGIS) have also been widely used in the past decade. Craig, et al. (2002) argues that GIS has the potential to reconfigure existing power relations within the community and with external stakeholders, the effects of which can be empowering or disempowering for the community (in Jordan 2002). While there are issues with PPGIS, it is evolving as a tool to gather and catalogue community-level data in a spatial database.

While these tools and technologies have been somewhat successful in engaging youth, Santo, Ferguson, and Trippel argue that youth participation projects require more creative or informal techniques to capture vouth perspectives. including the use of innovative technologies and bottom-up approaches (2010). For example, The IAPAD (Integrated Approaches to Participatory Development) group has developed 'participatory three-dimensional modeling', a process that blends GIS, physical models, and community participation (Rambaldi and Callosa 2000). Al-Kodmany (2001, 2002) has explored "a variety of approaches to visualization and digital annotation of public comments and envisions a progression in which web-based GIS moves away from one-way information dissemination to two-way interactive communication to three-way public communication" (in Sieber, 2006, 499). Gordon and Manosevitch studied a participatory planning intervention using augmented deliberation in an attempt "to understand how good design of physical group deliberation can be informed, enhanced, and complimented by a digital overlay." They argue "that the correlation of digital network interaction and face-to-face talk offers innovative

¹ See http://www.gpsdrawing.com/

² See http://wiki.openstreetmap.org/

designs that should be central to the way we consider public deliberation", which they believe can be applied particularly successfully in the participatory planning of urban space (2010, 77).

Issues/Concerns/Weaknesses

While innovative technologies are driving the progress on e-engagement, there are concerns regarding elements present in offline participation, which may be missing in online engagement, as well as concerns on the authenticity of youth participation. For example, digital networks are useful for connecting large groups of people, but limited in their ability to facilitate deliberative discussion online:

Digital networks can overcome challenges of scale and access, and social software platforms, such as Facebook, YouTube, and Wikipedia, can harness the immense energy of those distributed networks towards sharing, collaboration, and collective action (Benkler, 2006; Sunstein, 2006; Shirky, 2008). But social web media, while designed to be social, are not necessarily designed to be deliberative. (in Gordon and Manosevitch, 2010, 76)

Mandarano, Meenar and Steins point out the potential for the absence of a common geographic connection among online participants noting that "recent technological developments have created new forms of virtual social networks that are only partially connected to a geographic location, as they exist in cyberspace—the Internet" (2010, 125). The authors also voice concerns surrounding the loss of transparency and increased anonymity enabled when employing digital technologies to facilitate civic engagement (2010, 132).

According to Mandarano, Meenar, and Steins there are important issues to consider when designing digital methods for direct civic engagement in planning processes; specifically, the authors question "whether Internet-based methods of communication reach a broader audience, which is of specific concern in regards to poorer populations that may not have access to a computer or the Internet" (2010, 132).

There are a number of issues raised regarding the use of PPGIS in community engagement including concerns about privacy and appropriateness of the technology (Sieber, 2006).

A weakness in current research, identified by Mandarano, Meenar and Steins is that "the existing documentation tends to be descriptive versus analytical" in nature, which limits the ability to evaluate the social outcomes of public engagement initiatives (2010).

Future Research Needs/Directions

Santo, Ferguson, and Trippel advocate the following as important guiding principles for projects involving youth participation:

- 1. Foster *real* participation, where youth are not just subjects, followers, or learners, but are empowered to be determinants of change.
- 2. Instill connections to real-world practice and projects.
- 3. Let young people be (or express themselves like) young people (2010, 54).

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Mandarano, Meenar and Steins believe that the next generation of PPGIS applications will incorporate communication methods based on Social Networking Sites (SNS) and could have a profound impact on improving agency capacity to develop truly interactive websites and "increase the level of digital civic engagement, which holds the promise of producing similar social capital outcomes as observed in the use of traditional SNS" (2010, 131).

Case Studies

Research in the area of youth e-engagement has focused both on observational case studies, as well as experimental interventions. The available literature discusses examples including an initiative in Chicago called Street-Level Youth Media³ (Wilhelm, 2002). The group works with inner-city youth in media arts and emerging technologies for use in self-expression, communications, and social change. According to Wilhelm, Street-Level Youth Media is "a platform for the larger community to hear from youths in their own voice rather than through the lens of mainstream media and its often negative depictions of youth. In sharp contrast to these messages, what is often revealed through youth media is an abiding concern for neighborhood, identity, and global justice" (2002, 299-300). Youth from Street-Level Youth Media have worked with others around the world, acting as technology experts in order to enable youth to present their own views on their plight to an international audience. Wilhelm believes that, "this use of interactive media to overcome traditional borders of geography and identity arguably reveals a desire for political engagement" (2002, 300).

According to Tulloch "Public participation is advanced when [Google Maps and Google Earth] are used for advocacy or education with a purpose to change public processes or awareness." Tulloch uses the example of a community website⁴ in Montclair, New Jersey that maps out 'tear downs', which are older homes being razed for replacement stating "the implied intent of this is to actively raise awareness of the spatial pattern (particularly the density) of tear downs and to create more grassroots support in opposition to the practice" (2007, 3-4). Tulloch references a case study by Michael Lewis (2001) to illustrate the potential opportunities created by e-engagement technologies for youth:

And, as his case studies highlight, the relatively young participants in many of these phenomena are motivated by desires that are hard for older professionals to discern without serious examination. The spatial element adds to the puzzle, since many of these users are also exploring geographies and spatial concepts that have not been formally presented to them in school (Downs and DeSouza, 2006). The critical inquiries in which these users are engaged lead to higher order thinking about the complex inputs and outputs involved in shaping social and physical landscapes. Whether it is the learning experiences and spatial thinking or the new products of these exploratory processes, these users are experience a new form of empowerment enabled through Internet mapping. (Tulloch, 2007, 8)

Vromen examined a number of youth led online political engagement projects; during interviews with people identified as 'major influences' on the sites, an

³ http://www.street-level.org/About/index.html

⁴ http://www.baristanetnj.com/

interviewee suggested that, "young people actually use the Internet differently to older people, who use it mainly to source information. Instead, young people use the Internet to build community" (2008, 88). Vromen also found that there was considerable confidence among interviewees that the Internet could transcend differences between youth, provide new political opportunities, and potentially challenge existing power imbalances (2008, 91).

Gibson, Lusoli, and Ward reference an Internet voting experiment in the Arizona Democratic primary of 2000, which they regard as a great success for the Internet as a medium with participation reaching record levels (Gibson 2001, in Gibson, Lusoli, and Ward 2005, 563-4). Additionally, a Pew Center study which examined online contacting in 2001, "bore witness to the 'youth appeal' of the [Internet]" (Gibson, Lusoli, and Ward, 2005, 564).

Other projects have included youth voter registration efforts through text messaging, which have been used since 2006. An example of this is Voto Latino, which emerged from immigration protests that were organized through text messaging and social networking (Kann, et al. 2007, 5).

There have also been a number of papers published examining the results of the use of experimental technologies with youth in an effort to increase their participation in urban planning projects and local policy discussions. Technologies used have ranged from online map-based tools, community websites, and Facebook (Saad-Sulonen and Horelli, 2010), to qualitative PPGIS (Dennis, 2006).

Saad-Sulonen and Horelli describe a case in Helsinki, Finland, involving the codesign and planning of the Roihuvuori Youth Centre yard in 2008. The 'ICTmediated citizen participation' took place in a residential area of 7,400 inhabitants, situated 10 km east of the center of Helsinki. The yard became the subject of a co-design project proposal in December 2008 during a meeting at the Roihuvuori Senior Center. The community used the following ICT tools during the co-design: e-mail lists, Urban Mediator—a framework that enables users to create, collect and share location-based information and offers a set of tools that enables users to set up topics of interest—Roihuvuori community website, IRC Gallery, Facebook, and Floobs—a Finnish online video broadcasting platform that was running between 2007 and 2010 (2010, 9-11). The Urban Mediator software was used in order to translate ground plans—annotations by youth—into annotated online maps, and to share and distribute information concerning the different visions for the yard (Saad-Sulonen and Suzi 2007, Saad-Sulonen 2007).

Similar in design to other youth e-engagement projects the co-design was organized as a work-experience, at the request of the Youth Centre instructors, through a series of ten youth participation events. The goal was for youth to become experts at using the technology presented by the end of the training so that "the young acted as technical experts for the whole neighborhood, providing it with the possibility to follow the session via the neighborhood web site in which a video window was embedded" (Saad-Sulonen and Horelli 2010, 12, 15). The youth involved used the Urban Mediator to recruit others to mark on a map of Helsinki's interesting places that could provide inspiration for the design of the space. Saad-Sulonen and Horelli conclude "If the planning process is continuous and comprises several sessions during the planning cycle, it is possible to build capacity in digital citizenship skills, as was the case with the youth group in the case study" (Saad-Sulonen and Horelli 2010, 15-16).

The South Allison Hill Youth Planning Project was part of an ongoing ten-year revitalization effort in the South Allison Hill community of Harrisburg,

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Pennsylvania. Its goals were: "...to explore the possibilities of a qualitative GIS in which youth could contribute appraisals of their neighborhood to an emerging neighborhood indicators GIS project"; to construct a parcel-level GIS for the neighborhood; to conduct an analysis of land use, building condition, and absentee ownership patterns; to plan for affordable housing redevelopment; to map community assets; and to plan for a community cultural arts district (Dennis 2006, 2044).

Dennis hoped to "shift GIS from its entrenched position in positive-quantitative planning practice to a space shared with normative-qualitative planning practice". Another goal was to understand more fully the lived experience of real people; "Qualitative GIS accomplishes this by incorporating nonnumerical data into GIS: that is, by linking GIS objects (points, lines, and polygons) to qualitative appraisals" (Dennis 2006, 2044). The study aimed to capture the expertise of local youth, in their own words, while working directly on improvements to their neighborhood environment.

Organized through the South Allison Hill Concerned Residents Association (SAHCRA), the project included the use of participatory photography, community visioning, and sketch mapping. Youth involved were asked to think about specific places in their neighborhood that they liked (and wanted to protect or preserve) and places they did not like (and would like to change). Disposable cameras were then distributed, and the resulting photographs were mounted together with a narrative explanation, and displayed as a photography exhibit. During the exhibition, a spokesperson from each group explained the groups' deliberations, including the reasoning behind their selections. By focusing so directly on specific neighborhood spaces, this workshop produced important qualitative community GIS that provides a forum in which urban youth can express their views, while connecting them to broader geographic and political scales, presents an important opportunity for the development of youth civic engagement" (Dennis 2006, 2051).

Gordon and Manosevitch discuss Hub2, a pilot project in Boston, Massachusetts, which employed the virtual world Second Life as a means of engaging residents in the planning of a neighborhood park. The project was supported by the City of Boston, the Boston Redevelopment Authority (BRA) and the Allston Development Group (ADG) of Harvard University, and took place from June to August of 2008 (2010). The project consisted of formal in-person workshops and informal drop-in hours—where community members individually experienced the design of the park and contributed their ideas in an online conversation (Gordon and Manosevitch 2010, 81-82). Four 'youth interpreters' were hired to help facilitate the in-person workshops and to act as internet-savvy local resources. The youth served a dual purpose according to the authors; they were 'technology experts' who aided participants with the computers, but they were also 'viral advertisements' that attracted young participants to the project. The authors believe that the youth presence was effective, as the Hub2 workshops attracted more than 60 participants aged 14-25, while the simultaneously occurring traditional meetings failed to attract participants in this age range (2010, 83). According to the authors, "preliminary evidence [suggests] that augmented deliberation mitigates common barriers to participation in the planning of urban space. Transforming plans and designs into inhabitable environments enhances the capacity of lay participants to comprehend space" (2010, 89).

Santo, Ferguson, and Trippel report on The Youth Neighborhood Mapping Initiative, in which high school students worked with city planning faculty and

graduate students to identify assets and liabilities in their neighborhoods from a youth perspective and learned to use technology to tell their stories through maps, photographs, and blogs. The program sought to foster civic engagement among participants and help them voice their perspectives while providing training and exposure to careers in city planning, community development, and geographic information systems (GIS). The participants created representations of life in their neighborhoods through digital photo-maps kept track of their progress and shared stories with blogs, collected data with handheld computers, and used their newly acquired GIS skills to create interactive asset maps that they shared online. (2010, 55). The authors noted that most participants achieved a good comfort level with GIS in a short period of time. In addition, the program helped the youth participants develop an appreciation of the benefits of planning and an understanding of planning practice. The youth's successful use of ArcPad for collecting and mapping property conditions data served as an example to city government of how technology can be used to improve efficiency (2010, 63). The authors conclude that the technological tools utilized were useful as a means of capturing youth perspectives and fostering informal expression, and that youth can offer meaningful insights that impact communities and contribute to a broader understanding of community development issues (2010, 64).

References

Carpini, Michael X. Delli (2000) 'Gen.com: Youth, Civic Engagement, and the New Information Environment', *Political Communication*, 17:4, 341-349.

Dennis, S.F Jr. (2006) Prospects for qualitative GIS at the intersection of youth development and participatory urban planning. *Environment and Planning A*, vol 38, pages 2039-2054.

Gibson, R.K., Lusoli, W., and Ward, S. (2005) Online Participation in the UK: Testing a 'Contextualised' Model of Internet Effects. *British journal of politics & international relations*, 7, 561–583.

Ginwright, S., & James, T. (2002). From assets to agents of change: Social justice, organizing, and youth development. New Directions for Youth Development, 96, 27-46.

Gordon, E. and Manosevitch, E. (2010) Augmented deliberation: Merging physical and virtual interaction to engage communities in urban planning. *New Media & Society*, 13(1), pp 75-95.

Hilton, S. (2006) *Developing local e-democracy in Bristol: From information to consultation to participation and beyond*. Aslib Proceedings: New Information Perspectives, 58:5, 416-428

Kann, M.E., Berry, J., Grant, C., & Zager, P. "The Internet and youth political participation" *First Monday* [Online], Volume 12 Number 8 (6 August 2007).

Macintosh, A. (2004) Characterizing E-Participation in Policy-Making. *Proceedings of the 37th Hawaii International Conference on System* Sciences, IEEE, 0-7695-2056-1, 1-10.

Mandarano, L., Meenar, M., and Steins, C. (2010) Building Social Capital in the Digital Age of Civic Engagement. *Journal of Planning Literature*, 25: 123.

Pasek, Josh , more, eian and Romer, Daniel (2009) 'Realizing the Social Internet? Online Social Networking Meets Offline Civic Engagement', *Journal of Information Technology & Politics*, 6: 3, 197-215.

Rambaldi, G. and Callosa-Tarr, J. (2000) Exploring the Synergies of GIS and Participatory 3-D Modeling to Increase Local Communication Capacity, paper presented at *the 5th Seminar on GIS and Developing Countries, GISDECO 2000, IRRI*, Los Baños, Philippines.

Saad-Sulonen, J. & Susi, R. (2007). *Designing Urban Mediator*. Proceedings of the Cost 298 conference: participation in the broadband society. Moscow, Russian Federation.

Saad-Sulonen, J. (2007). *Introducing Urban Mediator: concept and work in progress*. Proceedings of Research and Activism: 4th Urban Studies Days Conference, 103-108. Department of Urban Studies, Estonian Academy of Arts. Estonia.

Saad-Sulonen, J. and Horelli, L. (2010) The value of Community Informatics to participatory urban planning and design: a case-study in Helsinki, The *Journal of Community Informatics*, 6:2, 1-23. Accessed online [11 Feb, 2011].

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Santo, C.A., Ferguson, N., and Trippel, A. (2010) "Engaging Urban Youth through Technology: The Youth Neighborhood Mapping Initiative". *Journal of Planning Education and Research*, 30:1, 52-65.

Sieber, R. (2006) Public Participation Geographic Information Systems: A Literature Review and Framework. *Annuls of the Association of American Geographers*, 96(3), pp 491-507.

Smith, A. and Rainie, L. (2010) 8% of online Americans use Twitter. Pew Internet & American Life Project. Online <10 May 2011> http://pewinternet.org/Reports/2010/Twitter-update-2010.aspx.

Thakur, D. (2009) ICTs and Community Participation: An Indicative Framework. *The Journal of Community Informatics*, 5: 1.

Tulloch, D.L. (2007) Many, many maps: Empowerment and online participatory mapping. *First Monday*, 12:2. 5 February 2007.

Vromen, A. (2008) Building Virtual Spaces: Young People, Participation and the Internet. Australian Journal of Political Science, 43: 1, 79 – 97.

Wilhelm, A. G. (2002), Wireless Youth: Rejuvenating the Net. National Civic Review, 91: 293–302. DOI: 10.1002/ncr.91308.

Section II: Empirical Work- Interviews of Organizations Participating in Youth E-engagement

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Section Two reports findings derived from interviews and archival work of community-based organizations working with youth in a multiplicity of initiatives including political education, after-school education, gang-free spaces, crime intervention and prevention, arts and media. This is a preliminary exploratory effort to understand how these programs use electronic and non-electronic tools in their work and, more specifically, the potential of these tools for youth civic engagement. Although the research suggests that available tools focus primarily on entertainment and connectedness; interviewees agree that there is a great potential for using electronic media for civic engagement. Electronic civic engagement, however, has its drawbacks including the loss of critical mechanisms of trust and closeness tied to face-to-face communication, elements of anonymity and isolation challenging personal responsibility, trivial and quick encounters, or absence of mechanisms that foster learning and acquisition of critical tools needed for civic engagement. More positively, the interviewed organizations perceive a notable potential for electronic media if properly combined with face-to-face encounters. They also believe that well-designed websites can address potential drawbacks (e.g., creation of Facebook-like sites specifically designed for more meaningful exchanges including opportunities for education and learning from civic engagement leaders). Lastly, electronic media has proven particularly useful to organize events, in calling people to take action, communicate between youth centers and youth, obtain relevant information and compose messages, clips, videos and other educational tools by youth for youth.

Interview Protocol

Selecting and Contacting Interviewees

Researchers established a list of potential organizations that directly work with youth and then selected ten organizations for preliminary inquiry based on the populations served, web page information, and type of work, making sure the selected groups were representative of existing groups, activities, and services. These ten organizations serve African American and Latino youth primarily but not exclusively. After developing profiles of each group through brochures, web pages and other materials, researchers contacted the organizations via an introductory letter with information about the project. Researchers then followed-up with each organization, updating contact information and staff listings as appropriate. After substantial follow-up, researchers were able to complete seven (7) interviews with representatives of the same number of organizations. Once the interviews were scheduled, project descriptions and consent forms were faxed and interviews proceeded. Although interviews were open-ended, they all followed the same script, included as Appendix 1.

Interviews

All interviews were conducted at the site of the respective organization and recorded with the consent of the interviewees. After introductions, the interviewers explained the protocol and invited questions from interviewees regarding the protocol and the research project. Next, interviewers proceeded with the script.

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Interview content

Interviews took the form of open conversations about the particular youth program(s) offered by the organization with a focus on the ways programs incorporated electronic media and non-electronic tools as well as the results of those efforts (e.g., successes, shortcoming, and challenges). To the greatest extent possible, interviewers went through each of the questions in the survey. They also asked follow-up questions as needed. Interviews were conducted by research team members and lasted between 40 and 90 minutes.

Research Focus

Research focused primarily but not exclusively on these issues:

- 1. How can online social networks and youth communities rekindle civic engagement traditionally centered upon political and community-based participation?
- 2. How can creative uses of digital technologies by young people expand the boundaries of politics and public issues?
- 3. Do the communication skills and action patterns in these familiar areas of online life transfer to more political realms such as voting and public protest?
- 4. What can we learn about civic life online that might help young citizens make these transfers more effectively and more often?
- 5. What can we learn from selected outlets and recent experiences such as clubs and political campaigns that have successfully motivated the youth?

To gain insights into these issues, researchers focused on the actual experiences of participant organizations and the issues emerging in their work through the interview process.

Interview Findings

Organizational Profiles

- All organizations continue to use traditional approaches to outreach and relationship building, most notably face-to-face contact. However, most of them also rely upon numerous information technologies or instruments, going beyond the traditional forms of communication and organizing.
- Organization One focuses on developing awareness among youth about the different forms of oppression they are subjected to while developing their ability to become activists and organizers to more effectively change their communities and themselves. In their words, their work is about movement building via awareness raising, leadership development, and group and individual action approaches. Organization One does this work through intensive summer camps, assistance of participants with actions which are drafted during the summer program, hand-holding, and issue workshops. The organization serves both Latino and African American youth between the ages of 14 and 18 with a focus on high school students.
- Organization Two works to develop youth leaders through popular educational meetings one evening per week and work on campaigns of the youths' choice a second evening each week. They offer space,

computers, gathering spaces, staff support, and activities for youth to spend their time at the site. Researchers visited a site located in an African American neighborhood, which is only frequented by African American youth between the ages of 12 and 24. At the organization's other site, both Latino and African American youth are offered social services.

- Organization Three provides media training to Latino and LGBT clients, ages 14 to 24. Additionally, it provides youth an opportunity to practice their newly-acquired skills on five youth-directed radio programs.
- Organization Four provides an after-school program for youth from age ten through mid-twenties. As part of this program, youth identify issues they wish to work on and then run campaigns as well as other activities throughout the year. The organization also runs an intense summer camp, which is an extension of the year-round after-school program. The organization is also part of a city- and nation-wide youth coalition working on education issues.
- Organization Five deals with violence mediation by helping people to assume responsibility for reducing violence in their communities, engaging in case management to help violence-prone individuals to change their behaviors, and working with the courts on individual cases. Although most of their constituents are 19, 20 or 21-years-old, they also work with youth between the ages of 16 and 21.
- Organization Six is a youth organizing collaborative of groups that both work throughout the city and across generations on issues of social justice. The collaborative is particularly engaged in high schools, building peer-to-peer relationships and student-staff relationships as well as college planning through development of personalized graduation plans. Each school has a leadership team that receives leadership and development training from the collaborative to be the voice of youth on policy-making issues within the respective schools. The collaborative serves youth ages 14 to 19 years old.
- Organization Seven engages in youth empowerment and leadership development by using the arts as a springboard and inducement for activism, civic engagement, and civic responsibility. Youth engage in campaigns and actions of their own. The organization also offers paid service learning to a limited number of individuals. This group works with youth as young as ten years old through the end of high school and follows up thereafter.

Six of the organizations in the sample engaged in youth organizing and social awareness development through different ways and approaches. All offered summer camps or other activities for families and youth. All organizations included youth in the delivery of their programs. With the exception of one in which youth participated in ad hoc projects on the request of the organization's staff, all groups give youth a central role in determining and running activities. Six of the groups explicitly engage in efforts to develop leadership around social justice issues directly affecting the lives of participants.

Technology Use

• Organization One combines electronic communication with traditional face-to-face, hands-on tools. According to the interviewee, "there is no way you can communicate with a young person unless you have a Facebook account." Computers, texting, and e-mails are the most frequently used tools in the organization's work. Based upon the understanding that electronic technology is only a means to

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communicate, they also use traditional tools to develop critical thinking, writing skills, face-to-face communication, door-to-door knocking, leaflet development and distribution, dialogue, research and decision-making.

Organization Two explained that, although youth of color "know their software and how to

make their fancy Facebook pages, many do not have access to the Internet and often cannot afford high tech." Convinced that face-to-face contact is critical for leadership and awareness development, and that electronic technology "detaches you from that personal level," this group includes traditional outreach approaches including social activities, workshops, and similar other approaches. Facebook and e-mail are integrated into their work and used principally to contact participants. Since their priority is a youth-run program, most of their activities include the involvement of youth working together face-to-face at the organization's offices.

- Organization Three focuses on programming and delivering youth radio programs to develop radio communication skills. They also train new enrollees through hands-on workshops. Most of the work takes place in teams of teens preparing and delivering programs they direct and create. The organization uses posters hung in strategic locations and recruits through TV commercials to involve youth. They also do much of their work through their webpage and communicate through U-Stream, Facebook, Twitter, and texting. The group defines itself as primarily "high-tech".
- Organization Four conducts much of its work through hands-on, face-toface activities though they acknowledge that their youth tend to veer towards texting, Facebook, and other similar means to communicate. Youth involved in the organization engage in campaigns and political work to influence policy changes by combining activities such as calling legislators, rallies, sit-ins, leaflets, and other activities.
- Organization Five primarily uses a database to keep track of its clients. Although they often contact clients via e-mail or Facebook and other staff members via e-mails and texting, much of their work is done face-to-face. The organization, however, envisions transitioning to a more electronic base in the upcoming five years.
- Organization Six conducts much of its communication via texting. However, actual leadership training and development takes place through on-site, hands-on workshops. Similarly, work in the schools is done through personal contact, meetings, and informal communication with peers.
- Organization Seven also combines face-to-face, on-site youth activities with technology. Texting and video are the main tools youth use to develop their ideas and show them to the public. They also do art projects. Youth work in teams and use research, face-to-face communication, campaigns, rallies, and leaflets as part of their work.

All of the organizations interviewed have web pages but use them to varied degrees; only one relies heavily in its web page. Although there are similarities in the types of electronic technology they use, each organization has its own style and also continues to value personal communication.

Benefits and Use of Electronic Technology

All the interviewees posited that working with youth requires extreme attention to electronic technology, with youth gravitating towards Facebook and texting

principally, but also using other media to communicate with their peers and using computers to learn about anything they wanted or needed to learn.

"The high-tech stuff, they got that down, that is their world" (Organization Seven).

"Our youth are very technologically inclined. People don't realize how driven young people are by listening to content or seeing content online, and having access to that. Providing information by their peers, I think is important" (Organization Four).

> "What types of technologies youth use to organize and communicate? I think twitter is a big one. Facebook, yes but that has become more of a way to keep up with your friends as opposed to... I feel like twitter is really about relaying information and passing information as it is happening... you are able to communicate messages with people that maybe don't live in your hometown or city and so you find out what is going on with the related issues. So if you wanted to know what is going on in immigration in New York or Arizona for example, that message is being transmitted in real time as opposed to waiting for the five o'clock news... you are seeing it and constantly being updated about information" (Organization Three).

> "E-mailing and having network listservers just come in handy for our large work, like local work and national work. So having conference calls and webinars with allies in New York, or having listserv exchanges with our allies in California is very important" (Organization Two).

> "It [the favorite youth communication tool] used to be MySpace and I used to have both ... but now everything transitioned completely to Facebook. So they [participants] will not respond to me as quickly over the phone or if I called their house or if a send an e-mail... With Facebook I send out a message and two seconds later I have all of their responses in my inbox" (Organization One).

> "There is a group in Oakland called Ford Media... they use the media to organize the young people, and it is pretty good. It is just for youth. They give youth the camera and they go and shoot at all these conferences and are utilizing that to communicate" (Organization Four).

> "They use text messaging to talk about rallies. They use Facebook to post anything about a rally, about a bill that they have been working on. They use YouTube to post videos. They know they can use technology to move masses... Technology enhances their ability to get a lot done at home. It breathes confidence in our young people" (Organization Seven).

Facebook and texting emerged as the primary means of communication of youth followed by Twitter and e-mail. Computers are used for Internet research, typing, composing, and editing electronic documents. Organizations also report significant use of radio, conference calls, webinar, listserv, and e-mails in their work.

All interviewees emphasized the potential, efficiency, and speed of electronic media and its efficacy in contacting youth, also known as Generation Y. They found it particularly useful for organizing events and networking.

Challenges of Electronic Technology in Working with Youth

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With the exception of one interviewee that was completely positive about electronic social media and technology, interviewees warned about its shortcomings and dangers. Their concerns include:

- Electronic communication is impersonal. "People can go on chat rooms, say all kinds of crazy things and it does not have to be them; there is no threat about having to be genuine. That is also the issue with Facebook, MySpace, and all these technologies, there is no censoring. There is this idea in our society that it is about freedom of speech. Is it really free if the speech is about hate and taking someone's freedom? The pressures and issues of young people have exacerbated through this high-tech.... I do not think it has empowered them; actually I think it is used to disempower them because it is such an impersonal thing and it is very easy to say something mean in a text or in Facebook without feeling guilty" (Organization One).
- Increased stress and distractions as youth are bombarded with messages and invitations to join something, purchase something, and participate in something or else without much sense or criteria of what it is truly about.
- Electronic communications require dedication and resources, at times detracting from the real work of organizations: "We are more concerned about doing the actual street work than being chained to having to update servers, backup, and all that kind of stuff" (Organization Five).
- The technology gap affects the ability of youth of color to participate because of lack of ready access to the Internet or electronics necessary to access it. Youth programs and libraries help but do not have enough equipment or may not be available when youth want or need to access them. Many youth cannot afford the necessary technology and have to rely on others for access.
- The pace of innovation and range of different technological options can make it difficult for organizations to choose the appropriate platform and adapt. Youth are most attracted to products that offer instant gratification, that are flashy and eye-catching, and things that happen quickly. It is difficult to keep youth's attention or to have them engage long enough to really learn or gain from something. "So it's pretty easy to get people's attention but to move beyond just getting attention and tokenism to actual genuine youth input on issues, it is like a whole other battle" (Organization Six).

Potential of Electronic Technology in Youth Civic Engagement and Political Life

All interviewees agreed to the tremendous potential of social media and electronic technology for developing social awareness, civic and political engagement and, most importantly, in struggling for social justice for youth of color and other social minorities such as LGBT individuals. With only one exception, however, all organizations viewed social media and technology as merely a tool to incorporate into their work –rather than a panacea. As expressed by the interviewees:

"Politically, I think they are learning to use the media. When you see that Middle Eastern uprisings originated through Facebook that opens their eyes in a different way... Now, a conflict can break out in first period [of school] and by three o'clock you have a mob waiting outside the school

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for a fight, and that is all based on texting messaging and posting to Facebook during school hours... Getting the youth to understand that power, how to use it for another reason is a process. They are starting to get it but it isn't the primary way they would use it. So, it is necessary, it is potent, but there is still a long way to go... the digital media arts and technology definitely advances them years ahead of where we may have been as 20 or 21 year olds. I think if you show them that they are creators and that people are interested in what they are saying and doing... "(Organization Seven)

"Do I think these technologies empower youth? I do. Obviously, the Egyptian revolution is an example of that. But I do not think it is like a silver bullet or a panacea to these bigger problems. In and of itself, it is not like a solution; you have to use it to do something. I think is like figuring out how you use it and do what" (Organization Six).

"I think it is a double edged sword: it can empower you but it can victimize you. We have a lot of people who are not Facebook addicts but those who are do not really interact with the world... it's like when was the last time you picked up the phone or went to visit this person? It can be a barrier to direct communication; it isolates you" (Organization Five).

"Internet or electronic media can be manipulated for youth engagement but it would have to be just as interesting, flashy, and catchy as Facebook" (Organization Four).

"Young people are more connected and we as a society more connected because of the Internet and social media networks... young people don't know that they have access to, not just new technologies or youth-driven technologies, but also now that newspapers are available online they are able to contribute something to those websites. Even as far as their knowledge as young people, they can intern and develop those stories or their social media outlets" (Organization Three).

"More computer labs are needed, like helping youth to become more technologically savvy... They have the ability to do all that stuff but the resources aren't always available to them" (Organization Two).

"Regarding civic engagement, I think that electronics has made a difference, but it is not substantial. Showing up to a protest to show solidarity does not mean that you are a critical thinker. I think there is this false idea that people are engaged.... It is not about you committing to the action but it is about how you think about that action and the other actions that it connects to. It is deeper than that; it is about a way of being and thinking... I think that this high technology has created the illusion that everybody is active and everybody is all about a revolution. I don't think they even understand... It's like 'show to this party I don't know who invited me to; I just got a text and I heard that it was going to be cool, so I showed up" (Organization One).

Ways in Which Grassroots Organization Could Take Better Advantage of Electronic Technologies and Social Media

Based on the experiences of the organizations engaged in the promotion of civic engagement and political participation, interviewees shared ideas about ways in which social media and electronic technologies could be more effective in this type of work.

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- Significant effort should go into extending access to underrepresented groups. Community-based organizations, local libraries, churches, and other neighborhood-based locations are ideal points of access. They should, however, be linked to programs assisting them not only in their use of the technology, but also encouraging and introducing uses beyond entertainment or social networking. These uses should be excluded as they are critical entry points. For example, groups in Detroit were able to bring in free Internet access for entire communities in Detroit to "give the whole community free Wi-Fi" (Organization Two).
- Youth should be directed to media such as radio and TV, preferably, for round tables and issue discussions. They should be directed also to the production of videos in which they can examine their challenges and educate their peers. In this way, not only will they feel a part of the community but society can also gain from their ideas and initiatives. To the greatest extent possible, such programs should be youth-run and youth-controlled.
- To support innovation, best practices should be disseminated and experimental programs should be supported and properly funded. Youth should be encouraged to find innovative uses of available social media and electronic technology as it is oriented towards civic and political engagement. Youth groups are anxious to learn and experiment with such approaches but need the funding, guidance, and technical support to do so. For example, with proper support, youth could conduct research on the ways in which people in their communities use Facebook, Twitter, Myspace, and other kinds of social media.
- The Internet is a particularly promising medium for youth to address large audiences, promote their creations, get feedback, inform themselves, respond to articles, etc. The more interactive the exercise and the technology, the better because it can reduce the potential for social irresponsibility and put a name behind individual input as needed or wanted.
- Technology and electronic media applications of political and civic issues will be more appealing to youth if they give youth their own place to participate, allow them to see that their efforts have an impact, and make clear that their contributions are taken into consideration. It is particularly important to avoid 'adultism' and give them control. "It has to be just as interesting, flashy and catchy as Facebook" (Organization Four).
- Most helpful would be the creation of something like Facebook or Myspace but for social justice purposes and particularly aimed at young people: "So you go and make a profile, but your profile is about the work that you are doing, campaigns you are part of, and organizations you support; all that stuff that you are loading up is all the work that is happening. So it is like your workspace. The social networking becomes activism oriented" (Organization One). These outlets should censor hateful or improper postings.

Major Findings

Overall, this research confirms the importance and appeal of electronic media to youth. It suggests that available sites or outlets most attractive to youth focus on entertainment and communication. Youth programs have found electronic media extremely useful for contacting their constituents, assisting them with

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information gathering, or for preparation of educational videos, radio programs, and other mechanisms through which youth speak directly to youth and general audiences. As important as these elements are in the work of youth organizations, interviewees believe that face-to-face communication, on-site gatherings and training, and working with adults in the development of civic and political tools provide most of the substance necessary for meaningful and effective engagement. Whereas electronic media is very successful in bringing people to events (i.e. convening), distributing information, and featuring educationals, it has not developed the types of sites, interactions, and trust-building, which faceto-face meetings provide and remain the basis of long-term relationships and engagement. Moreover, available media can be impersonal, geared towards instant gratification, uncensored and, therefore, often used to send anonymous messages of all sorts and to engage in deception. They can be tremendously distracting for youth and might even encourage isolation, as they can limit themselves to virtual, sometimes fake friends and thus might never develop closeness and people skills. These findings speak to the need to use electronic media in combination with on-site, face-to-face interactions involving adults and to develop new capabilities and sites that build on these experiences to address the limitations and profit from the potential of electronic media. Towards this end, interviewees suggested identification and distribution of best cases, youth involvement in the development and testing of new tools, universal access to electronic media (e.g., free Wi Fi for those communities that cannot afford it), universal training of youth in the proper use of electronic media and the existence of untapped sources and possibilities, and training in social responsibility in its use from an early age. Interviewees suggested using Facebook as a model for development of sites specifically focused on civil and political engagement.

Section III: GIS Application-Building a Ward Redistricting Game to Engage Chicago High School Students

Prepared by Urban Data Visualization Laboratory (UDVL): William Dieber, Nina Savar, Sarah Barr, Kheir Al-Kodmany

Summary

With funding provided through Part 3 of the "Becoming Citizens: Youth e-Engagement in Civic and Public Policy" the Urban Data Visualization Lab (UDVL) is completing the development of an interactive but not yet web-enabled ward redistricting game. The eventual objective is the development of a webbased tool enabling the interaction of Chicago high school students in a facilitated classroom setting with the issues of drawing ward boundaries in the fall of 2011. The expectation is that by engaging in a game of redistricting scenarios, student participants will see the importance of civic engagement and opportunities for involvement outside of the classroom.

Project staff has built a series of storyboards prototyping six wards in Chicago. The prototype models the project objective allowing individuals or teams with role-playing assignments to build wards by selecting "building blocks" with real data from the 2010 PL94-171 Redistricting Files from the Census Bureau. As a ward is "built," an on-screen calculator measures the total population of the ward, the compactness of the district being "built," and the race/Spanish origin population balance.

A version of this prototype was exposed to a focus group of undergraduates from CUPPA's Urban and Public Affairs program. It was generally well received but two important directions emerged.

First, the real challenge was not to provide students with the ability to understand redistricting and political representation but to provide them with a *specific motivation* to become engaged in the civic process. For example, inviting an elected official to assist the facilitator in helping the students debrief and contemplate the meaning of the exercise could give students a personal interaction with the civic process that could lead to further involvement on issues well beyond redistricting. Another example is providing instructions for how to become an involved citizen such as writing letters to elected officials, attending town hall meetings, and getting involved with a youth advocacy organization.

Second, as a ward is "built", indicators need to go beyond many of the traditional measures used in the process of redistricting, such as political strength, race, and compactness, and should include additional measures of relative well-being in the wards. Such measure might include relative income, crime rates, housing values, and so forth. These considerations influence the further development of the prototype in the next steps proposed in the process. A summary of the comments of this focus group is provided in Appendix 2.

Redistricting Background

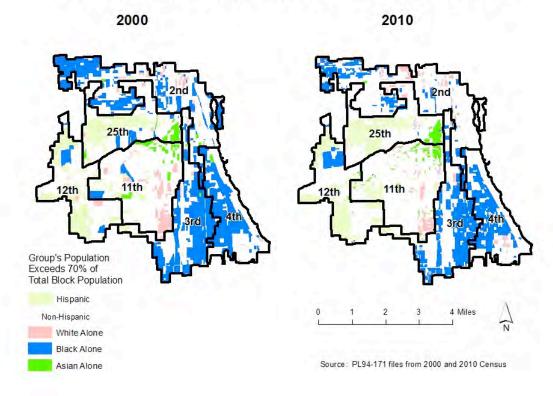
Legislative boundaries for congressional, state senate and house, and wards are redrawn after each decennial census. The objectives for the redrawn boundaries are to define areas that are contiguous, compact, and of equal population size that do not dilute the ability of minority populations to elect candidates of their

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choice. While this may appear to be simple on the surface, in fact issues of political representation, protection of community interests, and maintenance of partisan and incumbent strength provide an up-close opportunity for youth to observe the workings of the political process.

UDVL has focused its work on six wards in Chicago. These wards and the distribution of population by race and Spanish origin are summarized in Illustration 1 and Table 1.

Illustration 1 Block Population in Selected Wards, 2000, 2010



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Table 1: Population by Ward 2000 and 2010

WARD	4th	25th	3rd	11th	12th	2nd
Population Count						
Year 2000						
Total	53,812	58,350	53,915	58,107	58,498	53,831
Hispanic	1,080	41,114	3,525	19,765	40,583	2,518
Non-Hispanic	52,732	17,236	50,390	38,342	17,915	51,313
White Alone	7,544	7,568	2,376	23,857	7,092	11,369
Black Alone	41,872	2,670	46,254	964	9,185	35,192
Asian Alone	2,148	6,221	1,215	12,615	1,134	3,811
Other	1,168	777	545	906	504	941
Year 2010						
Total	49,195	55,602	40,506	55,911	55,822	69,367
Hispanic	1,653	31,544	3,715	18,555	40,211	4,571
Non-Hispanic	47,542	24,058	36,791	37,356	15,611	64,796
White Alone	8,115	10,753	3,486	18,346	4,483	27,485
Black Alone	34,275	3,227	31,076	1,244	8,751	27,762
Asian Alone	3,679	9,216	1,508	17,112	2,115	7,808
Other	1,473	862	721	654	262	1,741
Target 2010 Total	53,912	53,912	53,912	53,912	53,912	53,912
Adjustment	4,717	(1,690)	13,406	(1,999)	(1,910)	(15,455)
Population Share						
Year 2000						
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic	2.0%	70.5%	6.5%	34.0%	69.4%	4.7%
Non-Hispanic	98.0%	29.5%	93.5%	66.0%	30.6%	95.3%
White Alone	14.0%	13.0%	4.4%	41.1%	12.1%	21.1%
Black Alone	77.8%	4.6%	85.8%	1.7%	15.7%	65.4%
Asian Alone	4.0%	10.7%	2.3%	21.7%	1.9%	7.1%
Other	2.2%	1.3%	1.0%	1.6%	0.9%	1.7%
Year 2010						
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Hispanic	3.4%	56.7%	9.2%	33.2%	72.0%	6.6%
Non-Hispanic	96.6%	43.3%	90.8%	66.8%	28.0%	93.4%
White Alone	16.5%	19.3%	8.6%	32.8%	8.0%	39.6%
Black Alone	69.7%	5.8%	76.7%	2.2%	15.7%	40.0%
Asian Alone	7.5%	16.6%	3.7%	30.6%	3.8%	11.3%
Other	3.0%	1.6%	1.8%	1.2%	0.5%	2.5%

Source: Calculated by Urban Data Visualization Lab using PL94171 files from 2000 and 2010, Census TIGER Line 2010 file for 2000 and 2010 block geography, and Wards file from City of Chicago GIS portal

In 2000, the population in these wards varied between 53,812 and 58,498. Citywide, the average population per ward was 57,920. At that time, the 2^{nd} , 3^{rd} , and 4^{th} wards were majority Black; the 12^{th} and 25^{th} wards were majority Hispanic; and the 11^{th} ward contained a mix of mostly Hispanics, whites, and Asians. With the changes during the 2000-2010 decade, the 3^{rd} and 4^{th} wards will have to be increased to reach the 2010 city-wide ward average of 53,912 while the geographic size of wards 2, 11, 12, and 25 will have to be reduced. With current boundaries, the sub-group majorities in the wards remain as they were in 2000 although in the 11^{th} ward, the Asian share of the population has grown substantially. These shares, of course, can be altered significantly as the ward boundaries are adjusted.

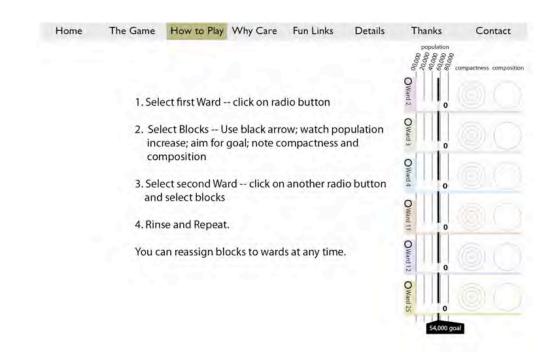
The challenge in redistricting these, and the remaining wards in the City of Chicago, is to reassign geography such that each ward contains approximately 53,900 people (1/50th of Chicago's total 2010 population), is compact and contiguous, and does not violate the Voting Rights Act. The latter concern suggests that if the six wards were the only wards in Chicago, after redistricting, two wards would produce Hispanic alderman, two wards would produce African-American alderman, one ward would produce a Asian-American alderman, and one ward would produce a white alderman. These proportions approximate the distribution of the population groups over the aggregate six ward area.

The Game

A simple overview of the game, as presented to the focus group that reviewed the effort, is that a high school classroom would be divided up into four groups – each group representing a particular interest. The division could be by race/ethnicity but that is not necessary; for example, one group could represent "better government" interests while another group might want to insure that incumbents could retain power. Each group, accessing the game across the Internet, would redraw the six ward boundaries to best represent the interest of their particular group. The groups would then come together and negotiate a final set of borders. At the end of the exercise, the facilitator (a classroom teacher or local elected official) would lead a discussion concerning the principles and the politics of what happened as well as the impacts of the agreed upon map. The class would conclude with a discussion of the importance of representation and an exploration of the opportunities for student involvement.

There are 5,490 census tabulation blocks (in 2010) in the six-ward area. Although the real redistricting "game" would assign these 5,490 blocks, this number is far too unwieldy for the purposes of this project. UDVL staff assigned these 5,490 blocks to 149 project block groups. These are the basic building blocks in the images that follow. These images are screen captures from the proposed website. The links across the top of the proposed website refer not only to the game itself but also to background on civic engagement, the redistricting process, and how to contact the Institute for Policy and Civic Engagement as well as the team that prepared the game.

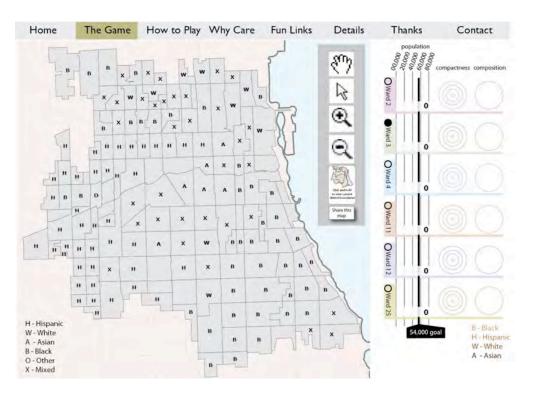
The first screen describes how the game is played as seen below.



The "scoreboard," appearing above on the right side of the screen, shows for each ward the amount of population accumulated in selected block groups and the relationship to the goal of approximately 54,000 people. To the right of the population totals are concentric circles indicating the measure of compactness. Very rectangular or circular wards would show as tight circles with small diameters while elongated wards would be large circles on the scoreboard. To the right of the concentric circles is a pie graph that would reveal the distribution of population to the race/Spanish origin subgroups as block groups are accumulated. Contiguity is not a measure on the scoreboard but is achieved if blocks in any ward are contiguous leaving no islands. The game will alert players to non-contiguous ward configurations.

The second screen shows the blank assignment where no block groups have been selected for a particular ward. This screen shows the 149 block groups constructed for the game as well as an indication of the predominant race/ethnic group in each block group.

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Note that the radio button for Ward 3 is selected so the game will begin with construction of that ward.

Clicking on the block groupings adds them as building blocks to the definition of Ward 3. Note that as shown here, Ward 3 is contiguous, very compact, about 20,000 people shy of the needed total, and reveals a distribution with a significant Asian and white population.



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More block groupings can be added and a few deleted resulting in the reconfigured Ward 3 shown on the next screen.

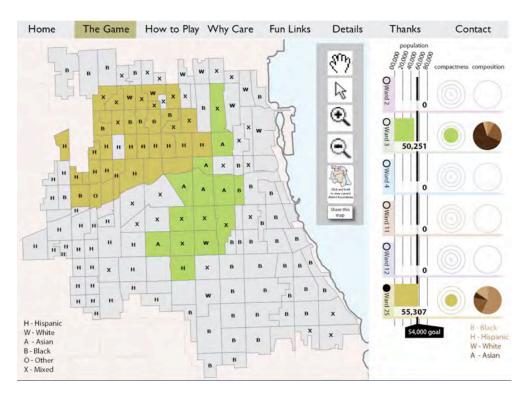
In the revised Ward 3 map below achievement of the Ward population target is much closer although compactness has degraded a little. It appears that this configuration gives the Asian population a significant majority.



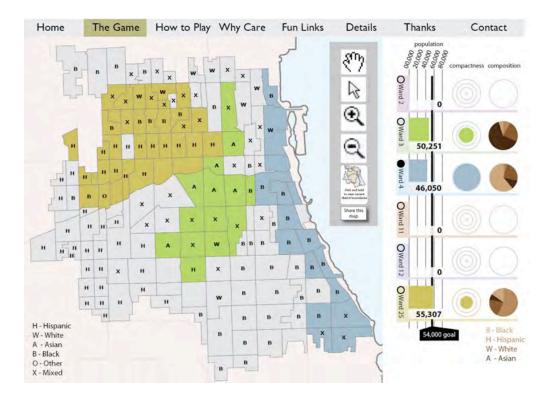
Move on to a different ward by selecting the radio button for Ward 25.

The ward shown below, Ward 25, has come very close to the population target and is reasonably compact but shows two islands and a disconnected block group. Such a ward boundary would not be acceptable. The ward does appear to be majority White.





Moving on to the final ward in the example, Ward 4, as constructed, is very elongated and does not do well on compactness. It does have a large African-American population.



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Participants would continue playing until all block groupings are assigned. Adjustments could be made to achieve the population targets, compactness, contiguity, and to maximize the position of each of the teams preparing maps.

The Focus Group Reaction to the Game.

Six undergraduates in the Urban and Public Affairs undergraduate program met with the project staff on May 3, 2011. There were two general purposes of the meeting. The first narrow purpose was to reveal the first version of the game and identify needed improvements and revisions. The second more general purpose was to put the game into the context of broader research questions the grant is trying to address:

- How can creative uses of digital technologies by young people expand the boundaries of politics and public issues?
- What can we learn about civic life online that might help young citizens make these transfers more effectively and more often?
- Will this interactive mapping tool help our youth better understand or be "plugged-into" civic issues?

Appendix 2, available at the end of this report, summarizes the major questions and responses of the focus group.

Observations and Next Steps

The focus group provided the project team with several meaningful insights. While the game itself would be fun, the key would be connecting the game experience to the goal of civic engagement. This might be accomplished through a combination of strategies:

- Using geography relevant to each particular class participating in the game would enable students to relate personal knowledge of neighborhoods to the aggregations of the building blocks. Providing a Chicago context map that locates wards of interest was requested.
- 2. Placing the game in the context of city-wide issues might enable students to understand how governance in Chicago works.
- 3. Adding additional information to the scoreboard beyond population shares, compactness, and target totals could add tangible meaning to the results. This might include socio-economic indicators comparing the alternative ward configurations, for example, income or housing value or jobs. Such measures would give life to the traditional redistricting notion of preserving a "community of interests."
- 4. A key to understanding the purpose of the game lies in facilitating a discussion about the game once each participating team has drawn their map of the six wards. Concepts such as the meaning of political representation and the Voting Rights Act of 1965 will require careful construction of a teacher's manual as well as development of additional links on the game website.

The project team has concluded that in this phase of the project, attention must focus on working with the six wards that were originally chosen. Efforts will be made to add an additional variable – probably household income from the

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American Community Survey by census tabulation block group – to the scorecard even if technically not used in the redistricting process. The central focus, beyond making the game operational on the web, will be the development of the teacher's manual.

Additional funding has been granted to make the game operational and to build the manual. A further progress report will be provided once those goals are achieved.

Appendix 1: Youth E-engagement in Civic and Public Policy Interview Questions

Part 1: Organization Specific

- 1. Please tell us about your organization, specifically what it does, focusing particularly on your youth-oriented activities.
- 2. How long have you been active in youth-related community-based work and in what capacities?
- 3. Have you engaged in other, non-youth oriented community-based or other work?
- 4. In case, you have been doing youth work for some time now, let's talk about the main activities involved in youth work (e.g., organizing, raising awareness, providing social services)?
- 5. Which specific low-tech tools were included in this work (e.g., phone, media, leafleting, public meetings, word of mouth) and how were they used?
- 6. Forwarding into the electronic media era, what instruments do you use in outreach, networking or communication of any sort?
- 7. How do low- and high-tech forms of technology compare in your community-based work with youth? Please briefly describe the electronic technologies used in your work with youth and their qualities and liabilities (e.g., easy to maintain, easy to use, versatility, educational and training value).
- 8. What would you say is the value of the new information technologies?
- 9. Please rate the top five electronic technologies used in your work.

The main focus of our research is to assess the participation of youth in the work of community organizations and the potential of electronic technologies to advance political participation and civic engagement on the part of youth.

- 10. Starting with the latter, how do you involve youth in your organization and in more specifically in the delivery of your work? Please be as detailed as possible.
- 11. Please assess the benefits, limitations or problems of engaging youth in the work of your organization
- 12. As far as you can tell, is this experience transformative for those involved as far as their awareness of social issues, their levels of participation in political and civic activities and their lifetime? Please include examples.
- 13. Moving into the use and potential of electronic technology in promoting and increasing the participation of youth in civic affairs and politics, please share with us the experience of your organization. Please use examples.

Part 2: General

Moving to a more general level but based in your experience working with youth, please provide us with your comments on the general issue of youth civic engagements.

- 1. Do you think that youth are indifferent to social issues, their levels of civic engagement are minimal, appropriate or better than say people were when you were growing up? Please explain.
- 2. Do you think electronic media has improved their participation, has maintained it at the same levels as before or has made them more passive and unattached?

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- 3. How can online social networks and youth communities rekindle civic engagement traditionally centered on political and community-based participation?
- 4. How can creative uses of digital technologies by young people expand the boundaries of politics and public issues?
- 5. Do the communication skills and action patterns in these familiar areas of online life transfer to more familiar political realms such as voting and public protest?
- 6. What can we learn about civic life online that might help young citizens make these transfers more effectively and more often?
- 7. What can we learn from selected outlets and recent experiences such as clubs and political campaigns that have successfully motivated the youth?
- 8. Why and how do the new IT (information technologies) empower or give youth more access to participate in civic engagement?

Appendix 2: Major Questions Posed to the Focus Group and Their Responses

How civically engaged are our youth and why should they care about engagement and representation?

Typically we see that high-performing students are engaged in civic activities and volunteer opportunities and typically there is some type of incentive for them.

If young people are volunteering in their own communities it can be more meaningful and important to them.

We would like to see more opportunities for other types of students, like lowincome or low-literacy students, because we find that these students have less knowledge of politics and are less civically engaged.

We see that when it comes to representation, students lose the connection between the census and how they are represented. The voting age is an issue because young people feel like, well if I can't even vote what kind of impact can I make.

Students really want to see how they are affected directly and how the community will change as a result of what they do and how they fit into that picture. Advocacy is a big part of that how they are important to elected officials is a big part of that, how they see themselves in the present and how they see themselves in the future is a big part of that. All of this is a part of why they should care and we need to tap into their individualism to show them how they are important.

We could also potentially tap into CPS Service Learning requirement as an incentive to students.

What do we think redistricting is?

Must have to do with populations. Since populations shift, districts shift. The process seems abnormal and politicized. Using census data to build stronger Wards. Who is the board for drawing the lines? Where the lines are drawn has a huge impact on who gets elected in that district, particularly in a very segregated city like Chicago. Depending on where the districts are drawn, it can be very hard for a minority to get elected in a district.

Gerrymandering can really rob some areas of their resources. It's a political power-play.

Harness a certain type of group and holds another group hostage. Helps the incumbent stay in power. Choosing creatively which districts they want to harness. It can wildly cut, and completely separate neighborhoods.

Wherever there is redistricting, race is a question. We fortunately have the courts so it's not totally up to politicians. Whatever districts they come up with have to satisfy the Voting Rights Act so they can't be discriminatory or have the result of being discriminatory. The Voting Rights Act trumps all of it. But there is a lot of

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room for lawyers to interpret the meaning of the Act and a lot of games that are played.

Do young people care about redistricting? Why should they care?

Young people don't necessarily feel connected to their representative and most probably don't know who they are. It's a hard enough process to fully define as it is, so there is a lot of ambiguity, so even reading about it in a book would be very confusing for a young person. Not a lot of clarity about what the process is, and hard to get a fundamental understanding. Is it taught in school? In textbooks? Is it part of the curriculum? Is it brought up during census years?

....the big idea of redistricting is really something that youth are interested in... the concept of the way that I am represented is... developed through this.. unjust or ineffective process, unfair process. But that being said, I think it is a challenge in the city because... there's not a lot of connection with youth between in local politics in general, and even community identity is really different through the minds of young people than it is on a map.

A lot of students wouldn't identify themselves with being part of community area that is part of the 77 community areas; it's much more localized. A lot of students map skills and map literacy would struggle to find their community on a map of Chicago.

Their city is a lot smaller than ours.

...the idea that ... who represents me [as a young person]... the process of that happening... if I feel like that process is not as pure as it could be or is... tainted in some way that's something that would upset me, even if it's just on a conceptual level... Because I think ... one thing that a lot of students in Chicago are very familiar with is being underrepresented ...not being taken into consideration as decisions are made, so they might not know why that is, but they...live the consequences of that, the ultimate consequences of that in their everyday lives, that is something that is tangible. If that can be connected to this abstract process that is something that students will really identify with.

For certain cultures, like Latino youth, are concerned with how it affects their families, generations to come.

Youth want to be represented, they feel they are underrepresented or misrepresented, if they think that that's going on, they are going to upset about it and want to understand the process.

Even students who are currently not underrepresented, even higher income students would be upset if they felt like injustice was going on in how resources are allocated. We often underestimate the capacity of young people to be compassionate and concerned about social justice.

Comments on Redistricting Tool

We want to couch this redistricting tool in something that youth will care about. We want to have a tool available to them where they can feel like this will help me

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understand this process and that it's something for me to care about and this is how it can possibly change things for me.

Navigation/Context

Is there a way to zoom out to see all of Chicago? More navigation and context might be important.

How to Play the Game/Background

Young people won't understand what voting has to do with this tool.

The idea of making this a competition in groups with each group having a different goal is a great strategy but they have to be set goals. Hand them a scenario.

Take turns making moves, making it interactive so each number of the group makes a move. Makes it more collaborative.

How to play needs to be front and center, not a separate tab that you can read or not read. The instructor would give background on why we care and then guide the students on how to play the game. The instructor sets it up with "this is the problem...." And even starting zoomed out with Chicago, talk about the redistricting process in Chicago, zoom into this area and why are we in this area.

Not the full story of redistricting unless you see it over time. Have to have the 2000 census and then how it changed in 2010. Being able to flip back to the old map, we need some reason as to why it needs to change. And then the scenarios could be really realistic.

Each group finishes the game and then examines their work. Can the game give feedback as to the group's results compare to the City average? We are hoping they will do it in a class discussion style.

Adding Other Variables/Consequences of Redistricting

A socioeconomic aspect seems to be missing. Just looking at race alone limits the number of scenarios you can have. But the fact of the matter it is about race. The problem with that is that the PL94171 is the redistricting file and doesn't include any of that information (income for example) when they redistrict, it only includes population and race. There needs to be an explanation about that.

Use one other characteristic to label the wards. So if there is a possibility to draw your wards based on X variable, even if it's not based on population/race. If you could have the blocks categorized by median income and you draw the lines based on racial composition but see the outcomes of median income.

Even though the game is played with population and race data, so maybe we can show other consequences not related to the census: acres of green space, access to medical services, bike lanes. To make it authentic, any consequences have to be understood that this has nothing to do with redistricting. We have to be sure that

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participants separate the process of redistricting from the consequences of redistricting.

How would you solve this community problem? What were the community consequences in addition to the benefits? It would be good to get a pop-up that says "you are making an error" or "you have have overshot your population goal" or "you are making people upset."

Game Take-Away/Outcomes

My take away is that the process of redistricting is unfair and they aren't using enough information, so that might cause some frustration with students. If students are frustrated from this, is that a good or bad thing?

Needs to be output if they are frustrated. So if I decide redistricting is unfair, what can I do about it? Do I have a hope of changing the process of redistricting? Is pointing out the unfairness is enough?

We want to see if this engages students. If they come away frustrated, will they want to become engaged?

End of game should be writing a letter to your representative, submitting them digitally.

End of game should maybe be a survey or "voting" digitally on the fairness of the process.

End of game should say something about what redistricting is about and how it translates to the student being involved in her own community. Can they type in their own address and get information on their own ward and their own representative?

End of game should have some kind of follow-up with their own community. Find a map of their own community after they do this.

Other Comments

The political wheeling and dealing is not captured with this tool. Better captures the reality of what happens.

Think about if classrooms have computer and color printer availability.

In terms of where the game is played (the actual geography), it doesn't matter if it takes place in the student's own community or their school's community. If the scenario is relevant to the student and resonates with them, the game can be played anywhere. The important piece is to make the connection between the game and my everyday life in my community.