

**UAPP 689-010: Information Technology Skills for
Planning and Administration
Spring 2018**

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Office Hours Monday 1-3 & by Appointment

This course is an overview of the knowledge, skills and abilities needed to successfully implement technology related projects in public, nonprofit and community settings. This course is designed to be taught in two parts. The first part of the course provides a conceptual overview of technology strategies and the development of interventions to realize the strategies. We will explore not only the conceptual basis of e-government tools but also the application of these tools to actual problems. The second component of the course is a service learning project designed around the needs of a community agency or other organization.

This course will include traditional e-government and public sector computing ideas. It will also feature information from nonprofit informatics and theoretical material from diffusion of innovation theory (Rogers, 2003). The course also makes significant use of emerging Web 2.0 technologies and explores their applicability to various settings in the governmental and nonprofit sectors.

Course Objectives

Upon Successful completion of this course, students should be able to:

- 1) Identify uses of technology in the nonprofit and governmental sectors as demonstrated by a substantial writing assignment;
- 2) Discuss the emerging world of e-government and e-democracy as demonstrated by a substantial writing assignment;
- 3) Plan an appropriate technology solution for a problem or function as demonstrated by a services learning project;
- 4) Develop basic skills with regard to a range of software tools as demonstrated by a services learning project;
- 5) Develop the ability to use technology skills in a public or nonprofit management setting as demonstrated by a services learning project;

- 6) Develop the ability to plan and execute a technology enhanced project as demonstrated by a services learning project;
- 7) Utilize an understanding of e-government and e-democracy principles in the design of project related work as demonstrated by a services learning project.

Assignments and Grading

Since the course is taught on a web-based format, requirements are somewhat different than in a traditional classroom situation. Students are responsible for reading all assignments, actively participating in online events, discussions and so forth. It is also important that you participate consistently during the course.

This is a graduate course.

Class Policies

Contacting Me: My office is located in Graham Hall, Room 298D. My telephone number is 302-631-0765 and my email address is mcnuttig@udel.edu. It is always easier to contact me through e-mail.

Expectations: You are expected to have read the assigned readings and participate meaningfully in the class discussions. I also expect that you will behave in a professional manner and to demonstrate respect for your colleagues.

My plan is to run the course as an interactive seminar. This means that your involvement in making the course a success is critical and that it is vitally important for you to have read the assigned readings. I am strongly committed to instructional technology and I plan to make this as much a part of the course as is possible. I am starting from the assumption [backed up by considerable research and theory building] that many of the things that are true today in the nonprofit sector will not be true in the near future. The challenges we faced in the past are not the challenges we will face in the future. On balance, the opportunities that will be available are also more than we expect today. This is an exciting time to be part of the nonprofit sector and one that offers considerable potential. I bring my experiences as a practitioner, consultant and scholar to this course. I expect and hope that you will contribute your experiences and ideas to making the course a success.

Attendance: While attendance is not required (eg: I don't take points off for absences) I strongly advise you not to miss any classes. It is very difficult to successfully complete this course without attending.

Illnesses: Please Stay Home if you are ill. I will be happy to help you make up the work. It is completely up to you to decide if you are sick enough to stay home.

Standards for Written Material: All material must conform to commonly accepted standards of scholarly and professional writing. Material must be types, double spaced, presented in APA format and all references must be documented. This is NOT conversational writing. Please submit any material by e-mail. The file name must be your name and the name of the course. It must be in Word. Please do not use pdf. I will not provide grades by e-mail or over the telephone.

Weather: If the university is closed we will not be having class. If you reasonably feel that it would be risky to make it to class, I encourage you to stay home. University Policy States:

Faculty and students are not expected to take unnecessary risks to meet their teaching and learning obligations due to inclement weather. When classes have not been canceled, it is a matter of personal judgment whether traveling to campus is hazardous. Faculty should notify their departmental offices when weather precludes them from meeting their teaching obligations; similarly, students should notify their professors when inclement weather precludes them from class attendance. In such cases, students should be allowed to make up missed class time and, whenever possible, canceled classes should be rescheduled.

Cheating and Academic Dishonesty: I plan to follow the University's policy on Academic Dishonesty: *It is the official policy of the University of Delaware that all acts or attempted acts of alleged student academic dishonesty be reported to the Office of Judicial Affairs. At the faculty member's discretion and with the concurrence of the student or students involved, some cases, though reported to the Office of Judicial Affairs, may be resolved within the confines of the course. All others will be adjudicated within the Undergraduate Student Judicial System. See the Student Guide to University Policies for complete information concerning this referral process" (UD Faculty Handbook)*

Disability: University Policy States that: "Any student who thinks he/she may need an accommodation based on a disability should contact the Office of Disability Support Services (ODSS) office as soon as possible. The ODSS is located at 240 Academy Street, Alison Hall Suite 130, Phone: 302-831-4643, fax: 302-831-3261, website: www.udel.edu/DSS. You may contact ODSS at dssoffice@udel.edu" (UD Faculty Handbook)

Religious Holidays: "It is the policy of the University of Delaware not to cancel classes on religious holidays. However, students and faculty are encouraged to exercise their own judgment pertaining to their attendance on these days. " (UD Faculty Handbook)

Nothing will be accepted after grades are submitted

Service Learning Project (50%) (Group Project) This assignment gives students the opportunity to work with an actual organization to create an effort using technology. Maximum Group size is six. **Due May 14**

You must deal with an actual organization and provide them with some assistance. This is not a term paper or a research project. Hypothetical projects are not acceptable.

Exercises: (30%) There are six exercises. Each exercise is associated with a unit. **Exercises are not accepted after the due date Each unit is worth 5% of the total grade**

Course Involvement (20%)

Textbook:

Newsome, G. (2013). *Citizenville*. New York: The Penguin Press.

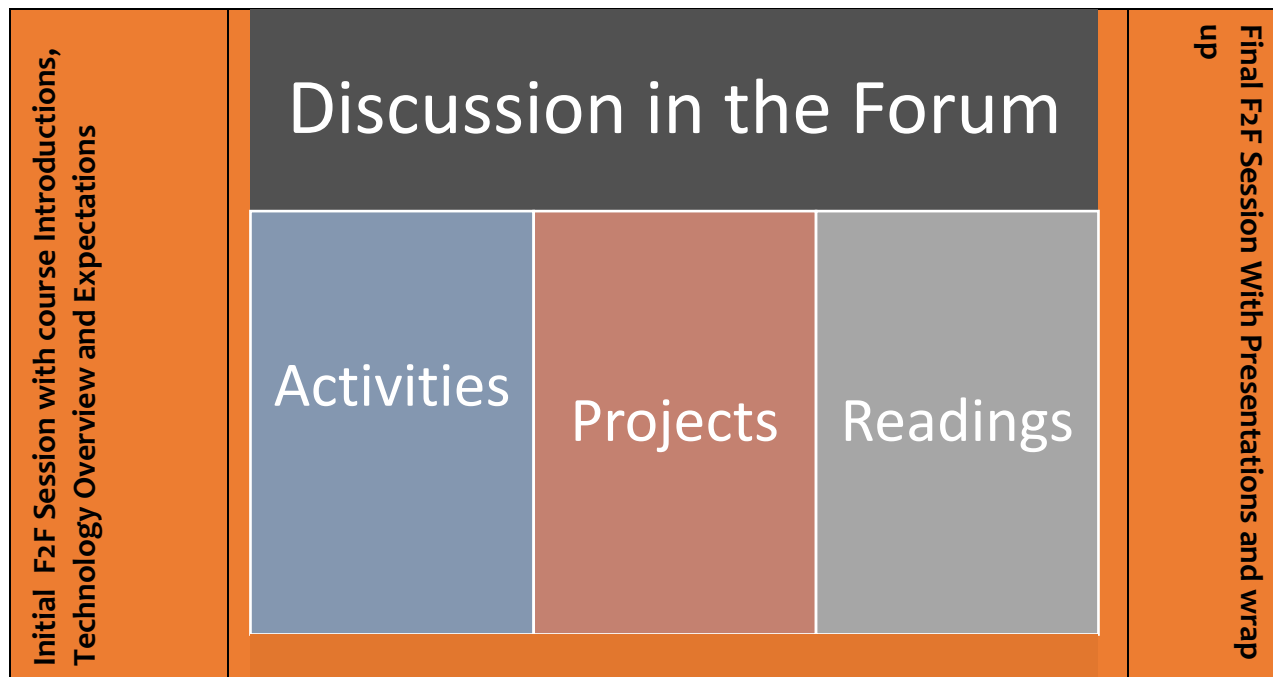
Method of Instruction

This course is offered in a blended format of face to face and online activities. The course begins with a traditional session and ends with a traditional session. Other activities are conducted asynchronously and on-line.

This course will make extensive use of technology to facilitate the teaching/learning process and insure teacher to student and student to student interaction. These technologies will include extensive use of the discussion board, websites, wikis and other forms of technology. This course lends itself well to this format because of the substance of the course material.

In taking this course, I assume that you have basic information technology abilities. This means that you can use a computer, have access to an Internet connection (preferably a broadband connection) and you can use common office software.

How a Blended Course Works



Assignment	Due Date
1 Cook's Tour	2/19
2 E-Gov	3/19
3 E-Democ	4/2
4 Security	4/16
5 Civic Technology	4/23
6 Big Data	5/14
Final Project	5/14

Course Outline

Week	Unit
Feb 5	Overview
12	<p>Technology and the virtual public sphere: This section discusses the relationship between technology and the public sphere, both in terms of public agencies and the rise of civil society organizations. We will examine these issues considering trends in the development of the information society and the rise of new types of technology. This is a f2f class</p> <p>Readings</p>

Text Chapter 1

Web 2.0 Video: The Web is Using Us

<http://www.youtube.com/watch?v=6gmP4nkoEOE>

Yochai Benkler: Open-source economics.

http://www.ted.com/index.php/talks/yochai_benkler_on_the_new_open_source_economics.html

Exercise: Cook's Tour of New Technology:

New tools. These new tools have had a terrific impact on technology. Your first task is to try at least one of these new tools that you have not used in the past and report to the discussion board.

Tableau

Vine

Meetup

Storify

Google Trends

Wase

Try it—Use it. Talk about it on the forum **DUE FEB 19**

Additional Resources

Benkler, Y. (2006). *The Wealth of networks*. New Haven: Yale University Press.

Jackson, M.O. (2009). Networks and economic behavior. *Annual review of economics*. 1 489-513.

19-
26

Project and Technology Planning: This section discusses the planning and implementation of information technology projects in the governmental and nonprofit sector. We also This consider the knowledge, skills and abilities needed for effective project management in the governmental and nonprofit sector.

These are f2f classes

Readings:

Cravens, J. (2005). Introducing New Technology Successfully into an Agency and Why Your Organization Needs a Technology Plan.

<http://www.coyotecommunications.com/tech/techbuy.html>

	<p>Finn, D. E. (2008). Ten things (just ten!) that every nonprofit executive needs to know about information technology. http://blog.deborah.elizabeth.finn.com/blog/_archives/2004/12/29/222355.html</p> <p>Nicholas Negroponte: One Laptop per Child, two years on http://www.ted.com/index.php/talks/nicholas_negroponte_on_one_laptop_per_child_two_years_on.html</p> <p>Taylor, P. (2012). 7 Ideas for Next-Generation Strategic IT Planning. <i>Government Technology</i>. http://www.govtech.com/policy-management/7-Ideas-for-Next-Generation-Strategic-IT-Planning.html</p> <p>W.K. Kellogg Foundation Logic Model Development Guide https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide</p>
<p>Mar 5-12</p>	<p>E-Government: This section discusses the basic theoretical and conceptual approaches to electronic government. This section will discuss the relationship between traditional service delivery and more wired forms of service delivery. This section, continuing on from the previous section, discusses the e-government process and the likely future development of e-government. Special attention is paid to new and emerging forms of technology. March 5 is a f2f class/March 12 is a virtual class.</p> <p>Readings:</p> <p>Text Chapter 2-7</p> <p>Holzer, M, Manoharan, A. Shick, R. Stowers, G. (2009). U.S. States E-Governance Survey (2008) A Nationwide Assessment of U.S. State Websites. Newark, NJ: National Center for Public Performance, E-Governance Institute. Rutgers University, Campus at Newark.</p> <p>Layne, K & Lee, J (2001). Developing fully functional E-government: A four stage model. <i>Government Information Quarterly</i>, 18, (2) 122.</p> <p>Video</p> <p>Clay Shirky: Why SOPA is a bad idea http://www.ted.com/talks/defend_our_freedom_to_share_or_why_sopa_is_a_bad_idea.html</p>

	<p>Topel <i>The wireless future of medicine.</i> http://www.ted.com/talks/eric_topol_the_wireless_future_of_medicine</p> <p>Additional Resources</p> <p>Chang, A. & Kannan, P.K. (2008). <i>Leveraging Web 2.0 in government.</i> Washington, DC: IBM Center for the business of government.</p> <p>Glassman, M, Straus, J.R. & Shogun, C.J. (2009). <i>Social Networking and constituency communication: Member Use of Twitter during a two month period in the 111th Congress.</i> Washington, DC: Congressional Research Service.</p> <p>Listening Post Communiqués, Johns Hopkins University, Center for Civil Society Studies, Retrieved from http://www.ccss.jhu.edu/pdfs/LP_Communique/LP_Communique20_IT.pdf</p> <p>Exercise</p> <p>Look at your state’s E-Government Portal. How easily can you find the part on the site needed to register to vote, renew your driver’s license, pay a fine and get state park information? Post the result of your enquiry to the forum.</p> <p>DUE MARCH 19</p>
19	<p>E-Democracy This section considers the role of technology in facilitating the democratic process. Wired Legislatures, e-rulemaking, electronic advocacy and so forth. This section will also consider the role of technology in elections and similar campaigns. We will examine the use of technology in recent national and state campaigns. This is a f2f class</p> <p>Readings</p> <p>Text 8-10</p> <p>Justice, J. B. & McNutt, J.G. (2013-2014). Social capital, e-government and fiscal transparency in the states. <i>Public Integrity</i>, 16(1), 5-24.</p> <p>Smith, A, Schlozman, K., Verba, S. & Brady, H. (2009). <i>The Internet and Civic Engagement</i> . Washington, DC. PEW Internet and American Life Projects. Retrieved from http://www.pewinternet.org/Reports/2009/15--The-Internet-and-Civic-Engagement.aspx on</p>

Video: Mancini How to upgrade democracy for the Internet era.
http://www.ted.com/talks/pia_mancini_how_to_upgrade_democracy_for_the_internet_era

Other Resources

Baxandall, P. & Wohlschlegel, K. *Following the Money* Washington, DC: U.S. PIRG Education Fund. Retrieved from
<http://cdn.publicinterestnetwork.org/assets/b3ba157e28d82952ee5b7a3f84e88499/Following-the-Money-USPIRG.pdf>.

Lathrop, D. & Ruma, L. (2010). (ed.) *Open Government: Collaboration, Transparency, and Participation in Practice*. Sebastopol, CA: O’Reilly

Assignments

Are there any papers or assignments due in week 3? (For instance, the small group project plan?) Do you have a template or model you’d like this to follow?

Compare Four websites--two on each side of an issue. *Pick an issue that is important to you.* Which websites are most compelling? Which looks the most useful in understanding the issues? Which makes the best use of technology? Fill out the table below and post your results to the forum.

Website	Looks Professional	Provides me with a way to get involved	Motivates Me	Provides me a way to understand the issue	Uses the Technology Well

DUE APRIL 2

26 Spring Break

Apr 2-9 **Security, Privacy, Terrorism and Cybercrime:** Technology is vulnerable to a number of threats that can result in loss of data, privacy issues and operational emergencies. This section will discuss some of these issues and identify strategies for addressing them. April 2 is a f2f class/April 9 is virtual

Hanson, W. (2012). Special Report: Cybersecurity Handbook for Cities and Counties. *Government Technologies Digital Communities*.

<http://www.digitalcommunities.com/articles/Special-Report-Cybersecurity-Handbook-for-Cities-and-Counties.html>

Harknett, R & Stever, J.A. (2011) The New Policy World of Cybersecurity. *Public Administration Review* 71, (3), 455–460.

Exercise

Do a personal Security Audit. Read Eric Franklin's (2015) How to stay safe online: CNET's security checklist <http://www.cnet.com/how-to/cnet-security-how-to/>. How safe are you?

Safety Evaluation

Area	Evaluation	Plan
Password		
Antivirus status		
Firewalls		
Accounts		
Social Media		
Shopping		

Share your experiences (but not your information) with the class.

DUE APRIL 16

**Apr
16**

Civic Technology: Civic Technology is designed to encourage participation in government and co-production and/or co-creation of government. This is an exciting new area with much potential for the future. **This is a f2f class**

Readings:

Desouza, K. C., & Bhagwatwar, A. (2014). Technology-Enabled Participatory Platforms for Civic Engagement: The Case of US Cities. *Journal of Urban Technology*, 21(4), 25-50.

Desouza, K. C., & Bhagwatwar, A. (2012). Citizen apps to solve complex urban problems. *Journal of Urban Technology*, 19(3), 107-136.

Living Cities (2012). *Field scan for civic technology*. Available at <http://www.codeforamerica.org/2012/12/07/the-state-of-civic-tech/>

Okolloh, O. (2009). Ushahidi, or ‘testimony’: Web 2.0 tools for crowdsourcing crisis information. *Participatory Learning and Action* 59 (1): 65–70.

Video

Jennifer Pahlka: Coding a better government
http://www.ted.com/talks/jennifer_pahlka_coding_a_better_government.html

Assignments

Examine the City Websites of Boston, Philadelphia or the District of Columbia. Find the following open civic data:

1. Crime data
2. Environmental Health Data
3. Data on Spending at the Checkbook Level

Let’s say that you needed the data to evaluate local enforcement efforts. Can you find what you need? How hard was it? Was it complete?

Fill in the Following Form:

Criteria	Crime	Environmental Health	Checkbook Level Spending
Easy to Find?			
Usable Form?			
Complete?			

DUE APRIL 23

**Apr
23-
May
7**

Data Science and Analytics: The rise of big data and advanced analytics has had considerable impact on many fields and is beginning to be embraced by government. April 23 is f2f/May 7 Virtual.

Readings:

Bertot, J. C., & Choi, H. (2013, June). Big data and e-government: issues, policies, and recommendations. In *Proceedings of the 14th Annual International Conference on Digital Government Research* (pp. 1-10). ACM.

	<p>Collins, H. (2012). Will the Big Data Surge Improve State and Local Operational Intelligence? <i>Government technology</i>. http://www.govtech.com/e-government/Will-the-Big-Data-Surge-Improve-State-and-Local-Operational-Intelligence.html?utm_source=related&utm_medium=direct&utm_campaign=Will-the-Big-Data-Surge-Improve-State-and-Local-Operational-Intelligence</p> <p>Zolle A. (2018). After Big Data: The Coming Age of “Big Indicators” <i>Stanford Social Innovation Review</i> https://ssir.org/articles/entry/after_big_data_the_coming_age_of_big_indicators</p> <p>Video</p> <p>Joel Selanikio: The surprising seeds of a big-data revolution in healthcare http://www.ted.com/talks/joel_selanikio_the_surprising_seeds_of_a_big_data_revolution_in_healthcare.html</p> <p>Assignments</p> <p>Find an article in the popular press about the use of big data to solve government or nonprofit issues. Pick something that you are interested in. Using what you learned in the course, critique the approach and identify its strengths and weaknesses. Post to the forum.</p> <p>DUE MAY 14</p>
14	Presentations This is a f2f class

Bibliography

- Adler, S., & Carpenter, H. (2015). Peer-to-Peer Fundraising Success: Paws With A Cause®. In *Cases on Strategic Social Media Utilization in the Nonprofit Sector* (pp. 24-64). IGI Global.
- Amoretti, F. (2007). International Organizations ICTs Policies: E-Democracy and E-Government for Political Development. *Review of Policy Research* 24 (4), 331–344.
- Anderson, K. V., & Henriksen, H. Z. (2005). The first leg of e-government research: Domains and application areas 1998–2003. *International Journal of Electronic Government Research*, 4 (1), 26–44.

- Bekkers, V. & Homburg, V. (2007). The Myths of E-Government: Looking Beyond the Assumptions of a New and Better Government. *The Information Society*, 23(5), 373-382.
- Baraniuk, C. (2013). The civic hackers reshaping your government. *New Scientist*, 218(2923), 36-39.
- Bolgherini, S. (2007). The Technology Trap and the Role of Political and Cultural Variables: A Critical Analysis of the E-Government Policies. *Review of Policy Research* 24 (3), 259-275.
- Bourne, P. E. (2014). What Big Data means to me. *Journal of the American Medical Informatics Association*, 21(2), 194-194.
- Bovens, M., & Zouridis, S. (2002), From street-level to system-level bureaucracies: how information and communication technology is transforming administrative discretion and constitutional control. *Public Administration Review*, 62(2), 174-84.
- Brainard, L. & McNutt, J.G. (2010). Virtual Government-Citizen Relations: Old Public Administration, New Public Management or New Public Service? *Administration and Society*. 42, 836-858.
- Brainard, L. A. (2003). Citizen organizing in cyberspace: Illustration from health care and implications for public administration. *American review of public administration*. 33 (4) 384-406.
- Brainard, L.A. & Siplon, P.D. (2002). Cyberspace challenges to mainstream nonprofit health organizations. *Administration and society*. 34 (2), 141-175
- Brainard, L.A. & Siplon, P.D. (2004). Toward nonprofit organization reform in the voluntary spirit: Lessons from the Internet. *Nonprofit and Voluntary sector quarterly*. 33 (3), 435-457.
- Brainard, L.A. & Brinkerhoff, J.M. (2004). Lost in cyberspace: Shedding light on the dark matter of grassroots organizations. *Nonprofit and voluntary sector quarterly*. 33 (3), 325-525.
- Browning, G. (1996). *Electronic democracy: using the Internet to influence American politics*. Wilton, CT: Pemberton Press.
- Carter, L. & Bélanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. *Information Systems Journal* 15 (1), 5-25.

- Cascio, W. F., & Montealegre, R. (2016). How technology is changing work and organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 349-375.
- Chaney, J.D., Jones, E. & Galer-Unti, R. (2003). Using technology in advocacy efforts to aid in Tobacco policy and politics. *Health promotion practice*. 4 (3), 218-224
- Clark, B. Y., Brudney, J. L., & Jang, S. G. (2013). Coproduction of Government Services and the New Information Technology: Investigating the Distributional Biases. *Public Administration Review*, 73(5), 687-701.
- Coleman, S. (2005). Blogs and the New Politics of Listening. *The Political Quarterly* 76 (2), 272–280.
- Congressional Management Foundation (2005). *Communicating with Congress: How capital hill is coping with the surge in citizen advocacy*. Washington, DC: Author.
- Cornfield, M. (2004). *Politics moves online*. Washington, DC; Brookings.
- Cyriac, J. (2000). Nonprofits use Internet as advocacy tool in cyberspace. *Public Interest Law Reporter* 5 (3), 15-18.
- Darr, C., Barko, J. & Robinson, B. (2004). *Putting on-line influentials to work for your campaign*. Washington, DC: The Institute for politics, democracy and the Internet.
- Davis, S., Elin, L. & Reeher, G. (2002). *Click on democracy: the Internet's power to change political apathy into civic action*. Boulder: Westview.
- Davis, R. (2005). *Politics On-line: Blogs, chat rooms and discussion groups in American democracy*. New York: Routledge.
- Deibert, R.J. (2000). International plug 'n play? Citizen activism, the Internet, and global public policy. *International Studies Perspectives* 1 (3), 255-272.
- Dijk, J. v. & Hacker, K. L. (2000). *Digital democracy: issues of theory and practice*. London, Sage.
- Franklin, M. I. (2007). NGOs and the "Information Society": Grassroots Advocacy at the UN— A Cautionary Tale. *Review of Policy Research* 24 (4), 309–330.
- Garson, D. (2006). *Public information technology and e-governance: Managing the virtual state*. Sudbury, MA: Jones and Bartlett.
- Grefe, E. (2003). E-campaigning: what it is and how to do it. *Journal of Public Affairs* 3 (2), 21-27.

- Gronlund, A. (2005). State of the art in e-gov research: Surveying conference publications. *International Journal of Electronic Government Research*, 4(1), 1–25.
- Hansen, D. L., Koepfler, J. A., Jaeger, P. T., Bertot, J. C., & Viselli, T. (2014, February). Civic action brokering platforms: facilitating local engagement with ACTION Alexandria. In *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing* (pp. 1308-1322). ACM.
- Hébert, M. K. (2013, June). e-government is so 1990s: why smart civic innovators drop the 'e'. In *Proceedings of the 14th Annual International Conference on Digital Government Research* (pp. 287-288). ACM.
- Hick, S. & McNutt, J. (Eds.). (2002). *Advocacy and activism on the Internet: perspectives from community organization and social policy*. Chicago: Lyceum Press.
- Heitmuller, A., Henderson, S., Warburton, W., Elmagarmid, A., & Darzi, A. (2014). Developing Public Policy To Advance The Use Of Big Data In Health Care. *Health Affairs*, 33(9), 1523-1530.
- Hill, K.A. & Hughes, J.E. (1998). *Cyberpolitics: citizen activism in the age of the Internet*. Lanham: Rowman & Littlefield.
- Hindman, M. (2005). The real lessons of Howard Dean: Reflections on the first digital campaign. *Politics in perspective*. 3(1), 121-127.
- Hindman, M. (2009). *The Myth of digital democracy*. Princeton: Princeton University Press.
- Hoffmann, L. (2012). Data mining meets city hall. *Communications of the ACM*, 55(6), 19-21.
- Howard, P.N. (2005). Deep democracy, thin citizenship: The Impact of digital media in political campaign strategy. *Annals* (597), 153-170.
- Illia, L. (2003). Passage to cyberactivism: How dynamics of activism change. *Journal of public affairs*. 3 (4), 326-337.
- Jaghoda, A.B (ed).. (2005). *Crossing the river: The Coming age of the Internet in politics and advocacy*. Washington, DC: XLIbris.
- Jensen, J. L. (2003). Virtual democratic dialog? Bringing together citizens and politicians. *Information polity*. 8, 29-47/
- John, S. & Thompson, S. (2003). Lobbying in the 21st century. *Journal of Public Affairs* 3 (2), 9-14.

- Johnson, D.W. (2002). Campaign website: Another tool but no killer app. *Journal of political marketing*. 1 (1), 211-213.
- Johnson, D.W. (2004). *Congress online: Bridging the gap between citizens and their representatives*. New York: Routledge.
- Jones, N. (2003). 24 hour media. *Journal of Public Affairs* 3 (2), 27-32.
- Justice, J., McNutt, J. & Smith, E. (2011). Holding state governments accountable for the public purse: What institutional, organizational and environmental factors promote fiscal transparency? Paper read at the First Global Conference on Transparency Research. May 19-20, Newark, NJ
- Kim, G. H., Trimi, S., & Chung, J. H. (2014). Big-data applications in the government sector. *Communications of the ACM*, 57(3), 78-85.
- Kleinman, D. L., Delborne, J. A., & Anderson, A. A. (2011). Engaging citizens The high cost of citizen participation in high technology. *Public understanding of science*, 20(2), 221-240.
- Lyon, D. (2014). Surveillance, snowden, and big data: capacities, consequences, critique. *Big Data & Society*, 1(2), 2053951714541861.
- Mandarano, L., Meenar, M., & Steins, C. (2010). Building social capital in the digital age of civic engagement. *Journal of Planning Literature*, 25(2), 123-135.a
- McCaughey, M. & Ayers, M.D. (Eds.). (2003). *Cyberactivism: on-line activism in theory and practice*. New York: Routledge.
- McNutt, J.G., Burke, K., Boland, K.M., Bartron, J. & Rice, D. (2001). Wired in beantown:
- McNutt, J.G. & Barlow, J. (2012). A Longitudinal Study of Political Technology Use by Nonprofit Child Advocacy Organizations. In Holtzer, M. & Manoharan, A. (eds.) *E-Governance and Civic Engagement: Factors and Determinants of E-Democracy*. Harrisburg: IGI Books.
- McNutt, J.G. & Boland, K.M.* (2007). Astroturf, technology and the Future of Community Mobilization: Implications for Nonprofit Theory, *Journal of sociology and social welfare*, 34 (3), 165-179.
- McNutt, J.G & Boland, K.M.* (2011). Comparing Administrative Statistics with Search Engine Based Predictions: The Potential of New Tools for research and practice in Public Administration Studies. Paper presented at the Northeast Conference on Public Administration (NECoPA) John Jay College CCNY, New York City, October 28-29, 2011. [Juried]

- Meikle, G. (2002). *Future active: media activism and the Internet*. New York: Routledge.
- Moon, J.A. & Norris, C (2005). Does managerial orientation matter? The adoption of reinventing government and e-government at the municipal level. *Information Systems Journal*, 15(1),43-60.
- Mueller, M., Page, C.. & Kuerbis, B. (2004). Civil society and the shaping of communication-information policy: Four decades of advocacy. *The Information society*, 20, 169-185.
- Norris, D. & Moon, M.J.(2005) Advancing e-government at the grassroots: Tortoise or hare?, *Public Administration Review* 65 (1). 64–76.
- Pew Research Center (2005). *The Dean activists: Their profile and prospects*: Washington, DC. Author
- Postmes, T. & Brunsting, S. (2002). Collective action in the age of the Internet: mass communication and online mobilization. *Social Science Computer Review* 20 (3), 290-301.
- Price, T. (2000). *Cyberactivism: advocacy groups and the Internet*. Washington, DC: Foundation for Public Affairs.
- Robbin, A., Courtright, C. & Davis, L. (2004). ICTs and political life. In Cronin, B. (ed). Annual review of information technology. Medford, NJ: Information Today. pp. 411-482.
- Rogers, J. (2003). *Spatializing international politics: Analyzing activism on the Internet*. London: Routledge.
- Rogerson, Ke. (2003). More Channels and More Voices? The Internet and Political Advocacy Groups Around the World. Paper presented at the annual meeting of the *The American Political Science Association*, Philadelphia Marriott Hotel, Philadelphia, PA.
- Sanders, T. H. (2005). E-Associations? Using technology to connect citizens: The case of meetup.com. Paper presented at the Annual Meeting of the American Political Science Association. Washington, DC. September.
- Sehmel, H. (2002). Websites and advocacy campaigns: decision making, implementation and audience in an environmental advocacy group's use of websites as part of its communication campaigns. *Business Communication Quarterly* 65 (2), 100-107.
- Shirky, C. (2008). *Here Comes Everybody: The Power of Organizing Without Organizations*. New York: Penguin.
- Shirky, C. (2011). The Political Power of Social Media. *Foreign Affairs*, 00157120, Jan/Feb 90(1).

Sifry, M.L. (2004, November 22). The Rise of open source politics. *The Nation*. On Line at <http://www.thenation.com/doc.mhtml?i=20041122&s=sifry>

Taylor, M., Kent, M.L. & White, W. J. (2001). How activist organizations are using the Internet to build relationships. *Public relations review* 27, 263-284.

Trippi, J. (2004). *The revolution will not be televised: Democracy, the Internet and the overthrow of everything*. New York: Reagan Book/Harper Collins.