

Home > Journal > Earth & Environmental Sciences > JGIS

[Indexing](#) [View Papers](#) [Aims & Scope](#) [Editorial Board](#) [Guideline](#) [Article Processing Charges](#)

JGIS > Vol.4 No.4, August 2012

OPEN ACCESS

## Utilizing GIS in Nonprofit Organizations for Urban Planning Applications: Experiences from the Field

PDF (Size: 4905KB) PP. 279-297 DOI: 10.4236/jgis.2012.44034

### Author(s)

Kheir Al-Kodmany

### ABSTRACT

This paper provides detailed examinations on the use of GIS in nonprofit organizations. We interviewed planners and GIS experts in key nonprofit organizations in the City of Chicago to comprehend their actual usages of GIS, faced challenges, and accumulated experiences. Organizations reported on dozens of projects where GIS was used for practical urban planning applications. Findings indicate that nonprofit organizations offer extremely useful lessons on using GIS for projects at the local, regional, and national levels. They provide extensive experiences on GIS technical problems and solutions, methodologies, and data issues. Their projects often support philanthropic efforts and respond to the needs of low-income communities. However, the organizations' resources are dwindling. This paper raises a concern about the importance of sustaining their GIS operations particularly with the current economic downturn. We call on government officials to support nonprofit organizations in order to ensure the continuity of their GIS activities.

### KEYWORDS

Challenges; Benefits; Nonprofit Organizations; GIS Stories

### Cite this paper

K. Al-Kodmany, "Utilizing GIS in Nonprofit Organizations for Urban Planning Applications: Experiences from the Field," *Journal of Geographic Information System*, Vol. 4 No. 4, 2012, pp. 279-297. doi: 10.4236/jgis.2012.44034.

### References

- [1] E. Boris, " The Nonprofit Sector in the 1990s," In: T. C. Charles and E. Thomas, Eds., *Philanthropy and the Nonprofit Sector*, Indiana University Press, Bloomington, 1999, p.
- [2] L. Salamon, " America' s Nonprofit Sector: A Primer," Foundation Center, New York, 1992.
- [3] W. Powell and R. Steinberg, " The Nonprofit Sector: A Research Handbook," Yale University Press, New Haven, 2006.
- [4] J. Saad-Sulonen, " The Role of the Creation and Sharing of Digital Media Content in Participatory E-Planning," *International Journal of E-Planning Research*, Vol. 1, No. 2, 2012, pp. 1-22. doi:10.4018/ijep.2012040101
- [5] W. Craig, T. Harris and D. Weiner, " Community Participation and Geographic Information Systems," Taylor & Francis, Inc., London, 2002.
- [6] R. Sieber, " Public Participation Geographic Information Systems: A Literature Review and Framework," *Annals of the Association of American Geographers*, Vol. 96, No. 3, 2006, pp. 491-507. doi:10.1111/j.1467-8306.2006.00702.x
- [7] B. O' Connell, " Civil Society: The Underpinnings of American Democracy," University Press of New England, Hanover, 1999.
- [8] T. E. Backer, " Strengthening Nonprofits," In: J. D. C. Vita and C. Fleming, Eds., *Building Capacity in*

[JGIS Subscription](#)

[Most popular papers in JGIS](#)

[About JGIS News](#)

[Frequently Asked Questions](#)

[Recommend to Peers](#)

[Recommend to Library](#)

[Contact Us](#)

Downloads:	135,205
------------	---------

Visits:	287,638
---------	---------

[Sponsors, Associates, and Links >>](#)

- [9] H. J. Onsrud and G. Rushton, " Report of the Specialist Meeting, Research Initiative 9: Institutions Sharing Geographic information," NCGIA Technical Report, Santa Barbara, 1992.
- [10] N. Obermeyer, " PPGIS: The Evolution of Public Participation GIS," 1998. <http://dusk.geo.orst.edu/ucgis/web/oregon/ppgis.pdf>
- [11] K. Al-Kodmany, " Extending Geographic Information Systems to Meet Neighborhood Planning Needs: The Case of Three Chicago Communities," URISA Journal, Vol. 12, No. 3, 2000, pp. 19-37.
- [12] R. Sieber, " GIS Implementation in the Grassroots," URISA Journal, Vol. 12, No. 1, 2000, pp. 15-29.
- [13] J. Creighton, " The Public Participation Handbook: Making Better Decisions through Citizen Involvement," Jossey Bass, New York, 2005.
- [14] S. Edwards, " Geographic Information Systems in the Social Sector: Trends, Opportunities, Barriers, and Best Practice," Master' s Thesis, the University of North Carolina at Greensboro, Greensboro, 2011.
- [15] D. Hackler and G. Saxton, " The Strategic Use of Information Technology by Nonprofit Organizations: Increasing Capacity and Untapped Potential," Public Administration Review, 2007, pp. 474-487. doi:10.1111/j.1540-6210.2007.00730.x
- [16] M. Barndt and W. Craig, " Data Providers Empower Community GIS Efforts," GIS World, Vol. 7, No. 7, pp. 49-51.
- [17] World Population Prospects, the 2004 Revision, United Nations, ESA/P/WP.193, 24, 2005. [www.un.org/esa/population/publications/WPP2004/2004Highlights\\_finalrevised.pdf](http://www.un.org/esa/population/publications/WPP2004/2004Highlights_finalrevised.pdf)
- [18] U. McGeough, D. Newman and J. Wrobel, " Model for Sustainable Urban Design: With Expanded Sections on Distributed Energy Resources, Sustainable Energy Planning Office, Gas Technology Institute. Prepared for Oak Ridge National Laboratory," 2004. [www.necsc.us/docs/ORNL\\_Design\\_Final.pdf](http://www.necsc.us/docs/ORNL_Design_Final.pdf)
- [19] CND, " Chicago' s Nonprofit," 2012. <http://www.chicagononprofit.org/>
- [20] United States Census (USC), 2010. <http://2010.census.gov/2010census/>
- [21] CNT-UIC, Joint Project of the Center for Neighborhood Technology and University of Illinois at Chicago College of Urban Planning and Public Affairs, " New Growth in Older Communities, Selecting Potential Sites for Transit-Oriented Development and Cargo-Oriented Development in South and West Suburban Cook County to Spur Economic Development," 2005.
- [22] Woodstock Institute, 2012. <http://www.woodstockinst.org/>
- [23] WI, Woodstock Institute, Interview, June 2007.
- [24] D. Immergluck and G. Smith, " There Goes the Neighborhood: The Effect of Single-Family Mortgage Foreclosures on Property Values," Woodstock Institute, Chicago, 2005.
- [25] G. Smith, " Increase in Bank Branches Shortchanges Lower-Income and Minority Communities: An Analysis of Recent Growth in Chicago Area Bank Branching," Reinvestment Alert, 27, 2005.
- [26] Center for Neighborhood Technology, 2012. [www.cnt.org/](http://www.cnt.org/)
- [27] H + T Affordability Index Website (H+T AIW). <http://htaindex.cnt.org/>
- [28] CNTa, Center for Neighborhood Technology, Interview, July 2010.
- [29] Center for Neighborhood Technology, " TOD Database," 2012. <http://toddata.cnt.org/>
- [30] CNTb, Center for Neighborhood Technology, Interview June, 2009.
- [31] CNTc, Center for Neighborhood Technology, Interview, July 2008.
- [32] Active Transportation Alliance, 2012. <http://www.activetrans.org/>
- [33] ATA, Active Transportation Alliance, Interview, August, 2008.
- [34] LISC MetroEdge, 2012. <http://www.metroedge.org>

- [35] LISCLocal, Initiatives Support Council (LISC), MetroEdge, Interview, June 2008.
- [36] Greater Southwest Development Corporation, 2012. <http://www.greatersouthwest.org>
- [37] Chicago Metropolitan Agency for Planning, 2012. <http://www.cmap.illinois.gov/full-circle>
- [38] GSDC, Greater Southwest Development Corporation, Interview, July 2008.
- [39] Little Village Community Development Corporation Website (LVCDC), 2012. <http://www.lvcdc.org/>
- [40] Enlace, Interview, July 2008.
- [41] Rogers Park Business Alliance, " Full Circle," 2012. <http://www.rogers-park.com/>
- [42] RPBA, Rogers Park Business Alliance, (Formerly DevCorp North), Interview, August 2008.
- [43] B. Shropshire, " Chicago Tribune, MCIC for Chicago Non-Profits Closing," 2012. [http://articles.chicagotribune.com/2012-01-24/business/chi-mcic-for-chicago-nonprofits-closing-20120124\\_1\\_profits-donors-chicago-area](http://articles.chicagotribune.com/2012-01-24/business/chi-mcic-for-chicago-nonprofits-closing-20120124_1_profits-donors-chicago-area)
- [44] MCIC, Metro Chicago Information Center, Interview, July 2008..
- [45] J. K. Pinto and B. Azad, " The Role of Organizational Politics in GIS Implementation," URISA Journal, Vol. 6, No. 2, 1994, pp. 35-61.
- [46] M. Merrick, " Reflections on PPGIS: A View from the Trenches," URISA Journal, Vol. 15, No. APA II, 2003, pp. 33-39.
- [47] P. McPhee and J. Bare, " Introduction," In J. D. C Vita and C. Fleming, Eds., Building Capacity in Nonprofit Organizations, the Urban Institute, Washington DC, 2001.
- [48] H. Leitner, S. Elwood, E. Sheppard, S. McMaster and R. McMaster, " Modes of GIS Provision and Their Appropriateness for Neighborhood Organizations: Examples from Minneapolis and St. Paul, Minnesota," URISA Journal, Vol. 12, No. 4, 2000, pp. 45-58.
- [49] W. Kellogg, " From The Field: Observations on Using GIS To Develop a Neighborhood Environmental Information System for Community-Based Organizations," URISA Journal, Vol. 11, No. 1, 1999, pp. 15-32.
- [50] K. Al-Kodmany, " Planning for the Hajj: Political Power, Pragmatism, and Participatory GIS;" Journal of Urban Technology, Vol. 16, No. 1, 2009, pp. 5-45. doi:10.1080/10630730903090289
- [51] S. F. Dennis, " Prospects for Qualitative GIS at the Intersection of youth Development and Participatory Urban Planning," Environment and Planning A, Vol. 38, No. 11, 2006, pp. 2039-2054. doi:10.1068/a3861
- [52] N. J. Obermeyer, " The Hidden GIS Technocracy," Cartography and Geographic Information Systems, Vol. 22, No.1, 1995, pp. 78-83. doi:10.1559/152304095782540609
- [53] M. Hanzl, " Information Technology as a Tool for Public Participation in Urban Planning: A Review of Experiments and Potentials," Design Studies, Vol. 28, No. 3, 2007, pp. 289-307. doi:10.1016/j.destud.2007.02.003
- [54] R. Ghose and S. Elwood, " Public Participation GIS and Local Political Context: Propositions and Research Directions," URISA Journal, Vol. 15, No. APA II, 2003, pp. 17-24.