

Expanding LIS Education in the US Department of State's Diplomacy Lab Program: GIS and LGBTI Advocacy in Africa and Latin America

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This article focuses on two collaborative projects selected by the Howard H. Baker Jr. Center for Public Policy at the University of Tennessee to partner in the US Department of State's Diplomacy Lab program that engages college students and faculty to study foreign policy challenges. The projects allowed information science graduate students to learn applied research in the process of developing geographic information systems for lesbian, gay, bisexual, transgender, and intersex advocacy. The paper identifies opportunities, challenges, and best practices in content delivery, resource development, and extended relationship-building while drawing upon teaching-research-advocacy intersections in library and information science education.

Keywords: advocacy; Africa; Diplomacy Lab; diversity; geographic information system (GIS); Latin America; lesbian, gay, bisexual, transgender, and intersex (LGBTI); LIS education

This article focuses on two collaborative information science projects that were selected by the Howard H. Baker Jr. Center for Public Policy at the University of Tennessee-Knoxville (UTK) as partners in the US

Department of State's Diplomacy Lab (Bureau of Public Affairs, n.d.), a public-private collaboration to harness the "knowledge of students and faculty at universities across the country to study issues of worldwide importance" (University of Tennessee-Knoxville News, 2015). The Diplomacy Lab program broadens the US Department of State's research base to more effectively respond to a variety of global challenges, while providing a unique opportunity for students and faculty to contribute directly to foreign and national policy-making processes (Lantsman, 2016). The projects reported in this article include the following:

- Project 1: International Correction Reform and Human Rights Protections for Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) Inmates in Africa and Latin America [Global Survey of Protections for LGBTI Inmates] (fall 2015). Project Product: Development of the LGBTI Integrated Cartographic Information System 1 (LGBTI-ICIS1) [<http://tiny.utk.edu/LGBTI-ICIS1-F2015>].
- Project 2: Mapping "LGBTI" Cultural Representations of Difference in Historical Sub-Saharan Africa [LGBTI Issues: Analysis of Historic Participation of LGBTI Persons in African Culture] (spring 2016). Project Product: Development of the LGBTI Integrated Cartographic Information System 2 (LGBTI-ICIS2) [<http://tiny.utk.edu/LGBTI-ICIS2-Sp2016>].

The projects involved volunteer collaboration of a total of six graduate students working in two respective teams while they were registered in an independent study/graduate research participation course with a faculty member (lead author) to learn applied research in developing geographic information systems (GIS) for LGBTI advocacy. The projects expanded the role of library and information science (LIS) in integrating a partnership with federal agencies in pursuit of creative activity to shape foreign-policy formulation within a non-traditional "classroom" experience. The article identifies opportunities, challenges, and best practices in content delivery, resource development, and extended relationship-building while drawing upon teaching-research-advocacy intersections in LIS education.

KEY POINTS

- Two collaborative projects in the US Department of State's Diplomacy Lab program developed LIS teaching-research-advocacy intersections to formulate foreign policy.
- Information sciences graduate students applied research in creating geographic information systems for international lesbian, gay, bisexual, transgender, and intersex advocacy.
- Opportunities, challenges, and best practices shaped content delivery, resource development, and extended relationship-building in library and information science education.

Development of the LGBTI-ICIS1

The project identified baseline protections provided to LGBTI inmates in select countries of Africa and Latin America, expounding areas with crimes against LGBTI prisoners, areas needing correction reform, and level of best practices employed (from none to acceptable) (Mehra, 2016). It led to the development of the LGBTI-ICIS1, a prototype solution that includes a global, non-traditional collection of interactive maps, visual information analysis, and application of severity scales to select area study regions in terms of conditions of the law, condition in the prisons, and human rights protections for LGBTI inmates. Also included are details on critical events, highlighting individual stories and information on LGBTI organizations in each selected region. The work-in-progress resource is informing US international correction reform to further human rights protections for LGBTI inmates and others in select countries, especially those that have laws that criminalize an already marginalized population (Mehra, Burwell, et al., 2016).

Figure 1 is a visual representative snapshot of the information, structure, and analysis displayed in the LGBTI-ICIS1. The user can navigate through each of the three respective layers shown in the left frame related to the conditions of the law, condition in the prisons, and human rights protections in nine African countries (Ghana, Liberia, Mali, Morocco, Niger, Nigeria, Senegal, South Sudan, and Tunisia) and nine Latin American countries (Costa Rica, El Salvador, Guatemala, Guyana, Mexico, Panama, Paraguay, Suriname, and Uruguay) by checking the select country and finding the relevant information. An alternative strategy is for users to explore and click on the map in the right frame to find detailed information about a particular country. They can click the “i” icon to see the severity scale legend and color code that is used to represent the conditions for LGB populations. The severity scale color codes for TI populations have not been applied to the map but are used in the details for select countries where available. Selecting the purple “heart-in-hand” icon provides a list of International Advocacy Organizations for the various countries.

Figure 2 shows an example of an interactive online record that is accessed by selecting the name of each country for each one of the three layers (in this case conditions of the law in Ghana). The legal characteristics are highlighted in terms of their legislative, executive, and judicial developments associated with LGBTI populations in the particular country over time, with additional information in multimedia formats and authoritative sources where the referenced evidence was found.

Figure 3 represents one form of visual information—namely an analysis of chronological development of the law related to LGBTI populations for each country (in this case Mexico)—that is integrated in the LGBTI-ICIS1. Several other forms of analysis were included, such as



Figure 1: A visual representative snapshot of the information, structure, and analysis displayed in the LGBTI-ICIS1.

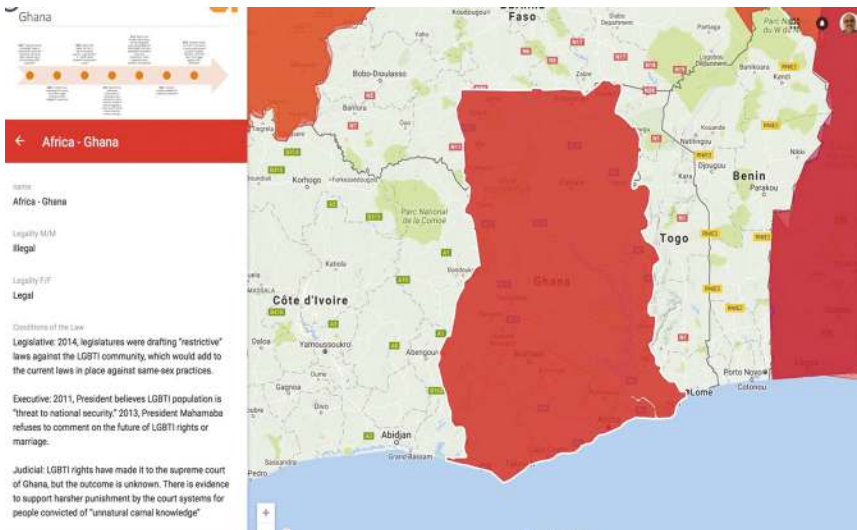


Figure 2: An example of an interactive online record in the LGBTI-ICIS1 representing the conditions of the law in Ghana.

development and visualization of legal data (e.g., male–male/female–female relationships, term and conditions of prison sentences, protection measures from discrimination, relevant laws, etc.) that were compiled to generate qualitative and quantitative severity scales, graphs, and space files that could be integrated into the GIS-based LGBTI-ICIS1.



Mexico

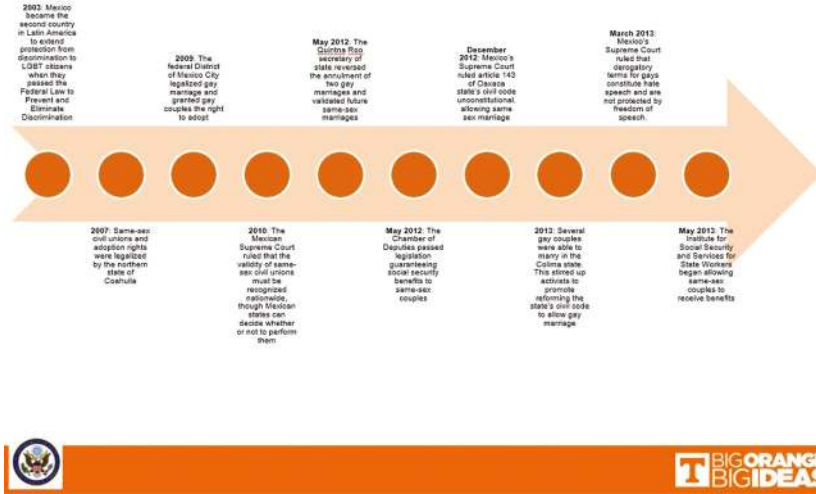


Figure 3: An analysis of the chronological development of the law related to LGBTI populations in Mexico that is integrated in the LGBTI-ICIS1.

Development of the LGBTI-ICIS2

This project mapped geospatial locations, events, places, people, and temporal data related to historical instances of non-conforming LGBTI representations of difference that have challenged contemporary perspectives on LGBTI lifestyles in Sub-Saharan Africa (Mehra, Stophel, & Lemieux, 2016). The GIS resource visualized evidence that LGBTI people/constructs were a present and persistent part of African culture before colonialization. It led to the development of the LGBTI-ICIS2, a dynamic Web-based report (with literature review, metadata descriptions, online records, and interactive visualized database) delivered via the GIS-based tool Google Tour Builder and that includes (1) research-based evidence from popular press, scholarly literature, and select qualitative data collection; (2) narrative discourse/content analysis of folktales and myths; and (3) fiction and non-fiction, song and theater, and oral histories. This tool is being used by contemporary scholars, foreign-policy makers, and human rights activists who encounter the common argument against the support of LGBTI people in sub-Saharan Africa that homosexuality is a western construct that goes against that region's historical and cultural traditions (Hoad, 2007). Such arguments are often contrary to occurrences of LGBTI-related references, examples, symbolism, imagery, and people in the culture and history of the region. The LGBTI-ICIS2 resource showcases evidence to identify these "non-conforming" examples of Africans who have challenged "traditional" cultural lifestyles to give the Department



Figure 4: A visual representative snapshot of the information, structure, and analysis displayed in the LGBTI-ICIS2.

of State leverage to further human rights advocacy on behalf of the LGBTI population.

Figure 4 is a visual representative snapshot of the information, structure, and analysis displayed in the LGBTI-ICIS2. The user can navigate through the list of tiles (like a “Table of Contents”) on the left-hand margin of the system. These tiles, serving as an interactive online record, were named in terms of Country-Tribe-Theme, with information regarding “non-conforming” LGBTI representations in sub-Saharan Africa during pre-modern times. Cultural themes included art, folklore, gender behavior, language, marriage, religion, and sexual activity. LGBTI-ICIS2 allows the user to navigate the system by either clicking on a select tile for relevant information or exploring on the map in the right frame to find detailed information about a particular Country-Tribe-Theme.

The kind of visual analysis mapped in the LGBTI-ICIS2 includes the following:

1. Geo-Tribal Thematic Network: Figure 5 represents in one country-tribe (i.e., the Angola-Ndongo tribe) a network of several documented “non-conforming” LGBTI instances related to the cultural themes of religion, gender behaviors, and marriage dating back to the early 1600s. Navigating the corresponding tile associated with the specific country-tribe-theme in the LGBTI-ICIS2 provides additional details, images, and references to the particular authoritative sources where the evidence was found.
2. Geo-Visual LGBTI Thematic Mapping: Figure 6 is a cultural thematic mapping of documented sexual activity in the LGBTI-ICIS2, representing its occurrence throughout the heart of the sub-Saharan region stretching across the continent. The specific tile for each country-tribe related to the theme of sexual activity provides the user further details, images, and authoritative references, for example, of homosexual activity under a variety of circumstances (e.g., during war), ranks, and roles contributing to the tribe.



Figure 5: A representation of a Geo-Tribal Thematic Network in the LGBTI-ICIS2 of several documented “non-conforming” LGBTI instances.



Figure 6: A representation of Geo-Visual LGBTI Thematic Mapping in the LGBTI-ICIS2 related to the cultural theme of sexual activity throughout the continent.

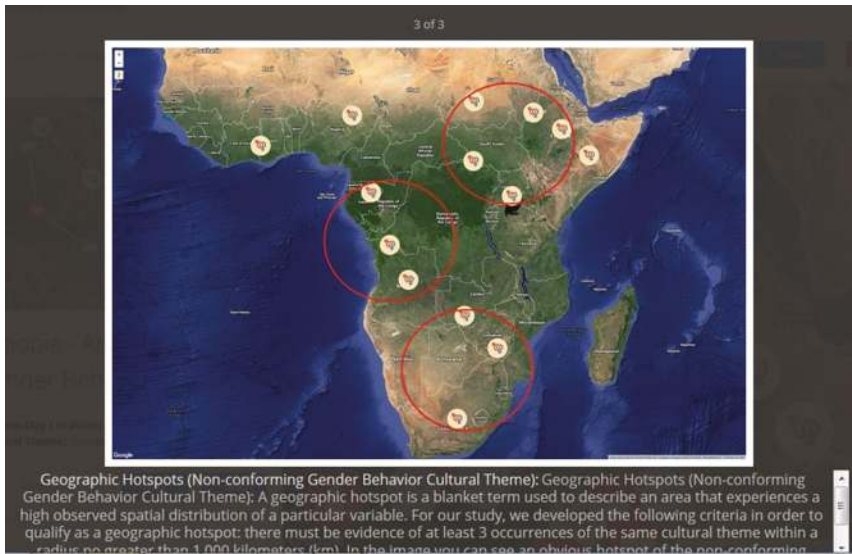


Figure 7: A representation of Geographic Hotspot Analysis in the LGBTI-ICIS2 related to an area that experienced a high documented spatial distribution of “non-conforming” gender behavior.

3. Geographic Hotspot Analysis: [Figure 7](#) represents an area that experienced a high documented spatial distribution related to the cultural theme of “non-conforming” gender behavior. A geographic hotspot is a blanket term used to describe an area that experienced such high observed spatial distribution of a particular variable. For this study, the team developed the following criteria to qualify as a geographic hotspot: there must be documented evidence of at least three occurrences of the same cultural theme within a radius no greater than 1,000 kilometers.

Potential impact

Leonid Lantsman, Department of State liaison in the Bureau of International Narcotics and Law Enforcement Affairs, identified Project 1 as an exemplar and invited the lead faculty author of this article as project representative to a panel entitled “Collaborative International Criminal Justice Research: Successful Projects from the U.S. State Department’s Diplomacy Lab” at the 2016 American Society of Criminology’s 72nd Annual Meeting in New Orleans in November 2016 (<https://tiny.utk.edu/dlp2016CrimConf>). As Todd Haskell, deputy assistant secretary for public diplomacy, United States Department of State, Bureau of African Affairs, wrote in his letter of appreciation of Project 2,

I thank you for encouraging your graduate students this semester to research historical examples of African acceptance of LGBTI individuals or individuals who could be contemporarily

characterized as LGBTI. This was the first time our Office of Public Diplomacy and Public Affairs undertook a Diplomacy Lab project, and your team's final project sets a high bar for future Diplomacy Lab ventures.

We plan to send the presentation and impressive website link to all 50 U.S. embassies and consulates in sub-Saharan Africa, as well as our colleagues in related bureaus, such as the Bureau of Democracy, Human Rights, and Labor, and the Secretary's Office of the Special Envoy for LGBTI Rights. The information provided can help our diplomats support tolerance and acceptance of Africa's LGBTI communities by demonstrating the communities have strong historical roots in many instances. We also anticipate the presentation and website could be of wider interest to the academic and activist community in the United States and encourage you to make it available to others for possible further research and refinement. (<https://tiny.utk.edu/DLPLetter>).

Discussion

A common strategy across the two Diplomacy Lab projects involved highlighting materials that visually integrated print/digital and multi-media audio-visual collections into dynamic interactive user-friendly GIS-based resources, allowing for easier interpretation, analysis, and identification of policy actions emerging from the contained information (Bolstad, 2016; Pierkot, Zimanyi, Lin, & Libourel, 2011). The teams responded to an urgent responsibility of information agencies to connect "collections" to advocacy/human rights protections for marginalized populations like LGBTI people who are unfairly treated as criminals in many parts of the world owing to cultural taboos or political reasons (Mehra & Hernandez, 2016; Mehra & Rioux, 2016).

The Diplomacy Lab projects provided opportunities for students to work directly with an external government agency and showcase their information management and technology skills while developing professional networks and career growth possibilities in the process (Kazmer, 2005). Learning outcomes included the furtherance of GIS advocacy and associated technology knowledge (Duval-Diop, Curtis, & Clark, 2010), comprehension of the ways in which LIS education can be applied in the real world (Ball, 2008; Yontz & McCook, 2003), and experience in analyzing complex data and communicating in a way that was succinct while still being comprehensively useful (Garvey, 2014). Student involvement in the two projects played an important role in their ability to graduate successfully and find job opportunities in prestigious firms and work settings of their choice. All project students are listed as co-authors of this article, and their current professional affiliations reflect the wide range of relevance and applicability of their learning experience in diverse career roles such as metadata specialist, data management specialist/team lead,

technical services professional, GIS resident librarian, law librarian, and resource management librarian.

Students gained hands-on experience in applying information-related research to foreign-policy development, a domain that has strong potential to expand the integration of library and information professionals' contributions in future years (Lazar, 2014). The experiences went beyond what a traditional classroom usually offers because the learning was grounded in a real-time context of partnering with a government agency to have students develop a practical application of technology in the form of usable, tangible products (Lim & Bloomquist, 2015). Students were very passionate about the potential impact of their work toward affecting positive change for a marginalized population in a geographic region of the world where the need was most immediate and urgent. It made them excited to know that the Diplomacy Lab experience was preparing them as professionals to respond to challenges and opportunities provided in a changing and dynamic work environment that is resulting from a globally networked and interconnected information society (Castells, 2010). As Taylor Hixson, former GIS resident librarian at the University of Chicago (and article co-author) who started in January 2018 as the geospatial services librarian at the New York University, Abu Dhabi, United Arab Emirates, said about her Diplomacy Lab experience, "I had other experiences in my library school education that were worthwhile, like practicum, assistantships, and group projects, but this was the first project I worked on that really felt like it fell outside of library school's structured safety net. Getting outside of my comfort zone as far as information seeking and collaboration—while still working under a professor's guidance—prepared me more for the real world of librarianship than a cataloging class ever could."

Implications for LIS education

LIS educators can implement similar efforts to partner external stakeholders (e.g., the US Department of State) with students in their classroom and develop information-related deliverables that make a direct difference in people's lives. This section briefly highlights important considerations to inform the development of such experiential-learning practices within the LIS professions, based on insights learnt in the two Diplomacy Lab projects.

Challenges. Building successful collaborations that are effective in serving collaborating agencies' expectations as well as enhancing students' learning experience requires intense planning, time-task management, and a creative "out-of-the-box" mindset and approach. In the two Diplomacy Lab projects, the "course" strategy of the independent study/graduate research participation allowed the faculty member to develop each student's personalized learning objectives while collaborating with other students in the team in the context of the larger project's goal and purpose.

Opportunities. To make such community-engaged learning a common phenomenon in LIS education requires faculty to critically analyze their course content and identify opportunities where stakeholder partnerships could enhance student experience and competence in the learning of varied information-related topics, subjects, and tasks. This calls, possibly at the programmatic levels, for identifying and listing different types of information agencies (e.g., government departments, multinational corporations, IT businesses, non-profits, etc.) that might be interested and willing to collaborate with students on the development of mutually identified products and outcomes requiring information-related skills and competences. Mapping to course content in the LIS curriculum would be an important step in the process.

Conclusion

This article has provided a glimpse of two innovative LIS projects that integrated collaborations with government stakeholders to apply student efforts toward foreign-policy formulation within the scope of an academic course structure (e.g., semester time frame, individualized student objectives within bigger project goals, weekly meetings, work distribution, demarcation of professional obligations, grades, etc.). Challenges and best practice solutions in visualized content delivery and resource development are meaningful because of teaching-research-advocacy intersections in LIS education. The Diplomacy Lab project experiences reveal important possible roles of information professionals in the enactment of government work. LIS educators and administrators must open their eyes to this potential as a strong career path for newly graduating students and provide opportunities and support for making this a reality. The need for strategies to expand LIS education in partnering with other organizations across various sectors (e.g., government, corporations, local activist groups, etc.) to involve students in teaching-research activities applied toward advocacy is also an important take-away message.

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References

- Ball, M.A. (2008). Practicums and service-learning in LIS education. *Journal of Education for Library and Information Science*, 49(1), 70–82.
- Bolstad, P. (2016). *GIS fundamentals: A first text on geographic information systems* (5th ed.). Ann Arbor, MI: XanEdu Publishing.
- Bureau of Public Affairs, US Department of State. (n.d.). *Diplomacy in action: Diplomacy Lab*. Washington, DC: US Department of State. Retrieved from <https://www.state.gov/s/partnerships/ppp/diplab/>
- Castells, M. (2010). *The rise of the network society*. The information age: Economy, society, and culture (Vol. I). Chichester, England: John Wiley & Sons.
- Duval-Diop, D., Curtis, A., & Clark, A. (2010). Enhancing equity with public participatory GIS in hurricane rebuilding: Faith based organizations, community mapping, and policy advocacy. *Community Development: Journal of the Community Development Society*, 41(1), 32–49. <https://doi.org/10.1080/15575330903288854>
- Garvey, W.D. (2014). *Communication: The essence of science: Facilitating information exchange among librarians, scientists, engineers and students*. Oxford, England: Pergamon Press.
- Hoad, N.W. (2007). *African intimacies: Race, homosexuality, and globalization*. Minneapolis, MN: University of Minnesota Press.
- Kazmer, M.M. (2005). Community-embedded learning. *Library Quarterly: Information, Community, Policy*, 75(2), 190–212. <https://doi.org/10.1086/431333>
- Lantsman, L. (2016, November). Bureau of International Narcotics and Law Enforcement Affairs' academic outreach program: Leveraging Diplomacy Lab. Panel title: Collaborative international criminal justice research: Successful projects from the U.S. State Department's Diplomacy Lab. 2016 American Society of Criminology's 72nd Annual Meeting, New Orleans, LA. Retrieved from <https://convention2.allacademic.com/one/asc/asc16/index>

- php?cmd=Online+Program+View+Paper&selected_paper_id=1149209&PHPSESSID=e4rvuj6as3jb59fi1hv94or3l5
- Lazar, J. (2014). Engaging in information science research that informs public policy. *Library Quarterly: Information, Community, Policy*, 84(4), 451–459. <https://doi.org/10.1086/677780>
- Lim, S., & Bloomquist, C. (2015). Distinguishing service learning from other types of experiential learning. *Education for Information*, 31(4), 195–207. <https://doi.org/10.3233/EFI-150952>
- Mehra, B. (2016, November). International corrections reform and human rights protections for lesbian, gay, bisexual, transgender and intersex inmates in Africa and Latin America: The LGBTI Integrated Cartographic Information System. Panel title: Collaborative international criminal justice research: Successful projects from the U.S. State Department's Diplomacy Lab. 2016 American Society of Criminology's 72nd Annual Meeting, New Orleans, LA. Retrieved from https://convention2.allacademic.com/one/asc/asc16/index.php?cmd=Online+Program+View+Paper&selected_paper_id=1149211&PHPSESSID=t02a56c411rpc-25mpvb7oqs8a3
- Mehra, B., Burwell, C., Hixson, T., Lemieux, P.A., III, Partee, R.P., II, & Wood, N.E. (2016, August). Global collections of international correction reform and human rights protections for lesbian, gay, bisexual, transgender and intersex inmates in Africa and Latin America: A prototype solution of the LGBTI Integrated Cartographic Information System. DocuQueer: Preserving community through collaborative collections (paper presentation), satellite meeting of the LGBTQ users SIG, *World Library and Information Congress: International Federation of Library Associations and Institutions (IFLA) General Conference and Council*, Chicago, IL.
- Mehra, B., & Hernandez, L. (2016). Libraries as agents of human rights protection and social justice on behalf of sexual minorities in India: An action-based manifesto for progressive change. In U. Gorham, N.G. Taylor, & P.T. Jaeger (Eds.), *Perspectives on libraries as institutions of human rights and social justice*. (Advances in Librarianship Series) (pp. 147–182). Bingley, England: Emerald Group Publishing. <https://doi.org/10.1108/S0065-283020160000041007>
- Mehra, B. & Rioux, K. (Eds.). (2016). *Progressive community action: Critical theory and social justice in library and information science*. Sacramento, CA: Library Juice Press.
- Mehra, B., Stophel, K., & Lemieux, P., III. (2016, May). LGBTI Integrated Cartographic Information System II, mapping “LGBTI” cultural representations of difference in historical sub-Saharan Africa [LGBTI issues: Analysis of historic participation of LGBTI persons in African culture] (invited presentation). *US Department of State's Diplomacy Lab Program*. Washington, DC: US Department of State.
- Pierkot, C., Zimanyi, E., Lin, Y., & Libourel, T. (2011, May). Advocacy for external quality in GIS. *Proceedings of the 4th International Conference on GeoSpatial Semantics*, Brest, France. https://doi.org/10.1007/978-3-642-20630-6_10
- University of Tennessee-Knoxville News. (2015, September 9). Law & politics: Baker Center becomes Diplomacy Lab partner with US Department of State. Retrieved from <https://news.utk.edu/2015/09/09/baker-center-diplomacy-lab-partner-department-state/>
- Yontz, E., & McCook, K.d.I.P. (2003). Service-learning and LIS education. *Journal of Education for Library and Information Science*, 44(1), 58–68. <https://doi.org/10.2307/40323942>