

CURRICULUM VITAE (2014)

I. Dr. MING-HSIANG TSOU

Professor, Department of Geography, San Diego State University.

Founding Director, the Center for Human Dynamics in the Mobile Age (HDMA).

Address: San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-4493

Telephone: (619)594-0205, Fax: (619)594-4938

Email: mtsou@mail.sdsu.edu Web: <http://geography.sdsu.edu/People/Pages/tsou/index.html>

Brief Bio sketch:

Ming-Hsiang (Ming) Tsou is a Professor in the Department of Geography, San Diego State University (SDSU) and the Director of the Center for Human Dynamics in the Mobile Age (HDMA). He received a B.S. (1991) from National Taiwan University, an M.A. (1996) from the State University of New York at Buffalo, and a Ph.D. (2001) from the University of Colorado at Boulder, all in Geography. His research interests are in **Human Dynamics, Social Media, Big Data, Visualization, Internet Mapping, Web GIS, Mobile GIS, Cartography, and K-12 GIS education**. He is co-author of *Internet GIS*, a scholarly book published in 2003 by Wiley and served on the editorial boards of *the Annals of GIS* (2008-), *Cartography and GIScience* (2013-) and *the Professional Geographers* (2011-). Tsou was the Chair of the Cartographic Specialty Group (2007-2008), the Chair of Cyberinfrastructure Specialty Group (2012-2013) in the Association of American Geographers (AAG), and the co-chair of the NASA Earth Science Enterprise Data System Working Group (ESEDWG) Standard Process Group (SPG) from 2004 to 2007. He has been served on two U.S. National Academy of Science Committees: “*Research Priorities for the USGS Center of Excellence for Geospatial Information Science*” (2006-2007) and “*Geotargeted Alerts and Warnings: A Workshop on Current Knowledge and Research Gaps*” (2012- 2013). Since 2008, Tsou served as a senior researcher in the **GeoTech Center** to promote GIS education in community colleges and high schools and conducted professional training workshops for GIS educators annually (<http://www.geotechcenter.org/>). In 2010, Tsou was awarded to a \$1.3 million research grant funded by National Science Foundation and served as the Principal Investigator (PI) of, “**Mapping ideas from Cyberspace to Realspace**” (<http://mappingideas.sdsu.edu/>) research project (2010-2014). This NSF-CDI project integrates GIS, computational linguistics, web search engines, and social media APIs to track and analyze public-accessible websites and tweets for visualizing and analyzing the diffusion of information and ideas in cyberspace. In Spring 2014, Tsou established a new research center, **Human Dynamics in the Mobile Age** (<http://humandynamics.sdsu.edu/>), a transdisciplinary research area of excellence at San Diego State University to integrate research works from GIScience, Public Health, Social Science, Sociology, and Communication. Tsou is the founding director of the HDMA Center. In Fall 2014, Tsou received a NSF Interdisciplinary Behavioral and Social Science Research (IBSS) award for “*Spatiotemporal Modeling of Human Dynamics Across Social Media and Social Networks*” (\$999,887, 2014-2018). This large interdisciplinary research project studies human dynamics across social media and social networks, focusing on information diffusion modeling over time and space, and the connection between online activities and real world human behaviors.

II. EDUCATION

<u>Institution</u>	<u>Years Attended</u>	<u>Degree</u>	<u>Major Field</u>
University of Colorado at Boulder	1996-2001	Ph.D.	Geography
State University of New York at Buffalo	1994-1996	M.A.	Geography
National Taiwan University	1987-1991	B.S.	Geography

(Ph.D. Dissertation: A Dynamic Architecture for Distributing Geographic Information Services on the Internet. Ph.D. Advisor: Dr. Barbara Buttenfield)

Research Interests

- Social media analytics and Big Data for human dynamics and urban issues.
- Surveillance of disease outbreaks using social media and GIS methods.
- Big data visualization and knowledge discovery in cyberspace (KDC).
- Mapping cyberspace and the spatiotemporal diffusion of innovation.
- Internet mapping and Web Geographic Information Services (GIServices).
- Web-enhanced geospatial technology education among K-12 schools, community colleges, and universities.

III. TEACHING POSITIONS AND RANKS HELD

<u>Institution</u>	<u>Rank</u>	<u>Dates</u>	<u>Major Subject</u>
San Diego State University	Professor	2011 to present	Geography
San Diego State University	Associate Professor	2005 to 2011	Geography
San Diego State University	Assistant Professor	2000 to 2005	Geography
University of Colorado	Teaching Assistant	1998 to 1999	Geography

IV. AWARDS AND HONORS

Teaching Awards

- 2011: The San Diego State University Senate Excellence in Teaching Award for 2010-2011 (the College Awardee).
- 2010: Outstanding Faculty Award, San Diego State University.
- 2004: Outstanding Faculty Award, San Diego State University. (The Outstanding Faculty Awards are in recognition as the most influential university professor in the academic career of the Outstanding Graduating Senior).

Professional and Research Awards:

- 2012: **The President's Leadership Fund (PLF) Faculty and Staff Awards for Excellence**, San Diego State University (Award funding: \$5,000).
- 2009: **HI-TEC (education) Innovative Program award** at the 2009 HI-TEC conference

(National Science Foundation: High Impact Technology Exchange Conference) with Professor Kenneth Yanow at Southwestern College.

V. PROFESSIONAL GROWTH

Serving on National Academy of Science Committees:

- 2012- 2013: National Research Council of the National Academy of Science (NAS), Committee on *Geotargeted Alerts and Warnings: A Workshop on Current Knowledge and Research Gaps*. Committee member, 2012- Current. (Research gap analysis for Department of Homeland Security and FEMA).
http://www.nap.edu/catalog.php?record_id=18414
- 2006-2007: National Research Council of the National Academy of Science, Committee on *Research Priorities for the USGS Center of Excellence for Geospatial Information Science*, Committee member. 2006-2007.
http://www.nap.edu/openbook.php?record_id=12004

Serving on the editorial boards of referred journals:

- **Annals of GIS** (2008- present)
- **Professional Geographers** (2011- present).
- **Cartography and Geographic Information Science** (2013- present).

Extramural Support

2014-2018 PI (Tsou). **National Science Foundation Interdisciplinary Behavioral and Social Science Research (IBSS) award** for “*Spatiotemporal Modeling of Human Dynamics Across Social Media and Social Networks*” (\$999,887, 2014-2018). Collaborate with Drs. Jay Lee (Co-PI, Kent State), Ruoming Jin (Co-PI, Kent State), Xinyue Ye (Kent State), Brian Spitzberg (Co-PI, SDSU), Jean Marc Gawron (Co-PI, SDSU), Heather Corliss (SDSU), and Xuan Shi (U of Arkansas). This large interdisciplinary research project will study human dynamics across social media and social networks, focusing on information diffusion modeling over time and space, and the connection between online activities and real world human behaviors.

2013-2015 Senior Personnel (Tsou). GeoTech Center 2.0. National Science Foundation (NSF) Advanced Technology Education (ATE) program. PI: Vincent A. DiNoto, Jr., Director of GeoTech Center, Jefferson Community and Technical College. SDSU Sub-award: \$54,895. (2013-2015). (<http://www.geotechcenter.org/>)

2010-2014 PI (Tsou). National Science Foundation (NSF) Award: “*CDI-Type II: Mapping Cyberspace to Realspace: Visualizing and Understanding the Spatiotemporal Dynamics of Global Diffusion of Ideas and the Semantic Web.*” 09/01/2010-08/31/2014. (48 months). Award # 1028177. (Co-PIs: Dipak K Gupta, Political Science, SDSU; Jean Marc Gawron, Linguistics, SDSU; Brian Spitzberg,

- Communication, SDSU, Senior Personnel: An Li, Geography). Funding Amount: **\$1,300,213**. (<http://mappingideas.sdsu.edu/>)
- 2012 PI (Tsou). GIS Mapping for Older Adult Services in San Diego. San Diego Foundation. \$33,448. (Jan 2012 – Dec 2012). (Co-PI: Dr. Yawen Li, School of Social Work) (<http://mappingideas.sdsu.edu/health/>)
- 2011 Co-PI (Tsou). GIS Mapping for Older Adult Services in San Diego. San Diego Foundation. \$28,000. (Jan 2011 – Sep 2011). (<http://mappingideas.sdsu.edu/health/>)
- 2011 PI (Tsou). Connectory GIS Improvement Project. San Diego East County Economic Development Council, \$15,000. (Jan 2011 - August 2011). (<http://geoinfo.sdsu.edu/connectory/index.html>)
- 2010 Co-Investigator (Tsou). US Forest Services (USFS). FS Recovery Act Agreement No. 10-JV-11279701-10. (PIs: Dr. Douglas A. Stow and Dr. Philip J. Riggan). “*Airborne remote sensing to enable hazardous fuels reduction, forest health protection, rehabilitation and hazard mitigation activities on Federal lands.*” Time period: March 1st, 2010 through December 31, 2014. Founding Amount: \$459,380.
- 2009 Co-Investigator (Technology developer). Founding Agency: the San Diego Foundation. *MAPS (Metropolitan Area Pluralism Study)*. PI: Dr. Rebecca Moore, Department of Religious Studies, SDSU. \$ 23,000 (2009 – 2010). (<http://geoinfo.sdsu.edu/maps/>)
- 2009 PI (Tsou). *Bizarre Map Challenge (BMC): A Nationwide Map Design Competition*, funded by the National GeoTech Center (NSF-supported). (Nine months, Dec 1, 2009 – August 31, 2010). \$31,000. Completed. (<http://bizarremap.sdsu.edu/>)
- 2009 PI (Tsou). International Community Foundation. “*Baja-Eco-Info Mapping Tool: Mapping Conservation and Threats for the Gulf of California*”, (nine months, Jan 1, 2009 – August 31, 2009). \$11,500. Completed. (<http://geoinfo.sdsu.edu/baja/>)
- 2008 PI (Tsou). San Diego County, Office of Education. “*Geographic Information System for the Splash Station*”, (1.5 months, July 15, 2008 – August 31, 2008). \$3,784. Completed.
- 2008** Senior Personnel (Tsou), National Science Foundation (NSF) Advanced Technology Education (ATE) program: *National Geospatial Technology Center (GeoTech Center)* Project Period: 09/1/08-2008/30/2012. Total Funding Amount: \$4,999,997. PI: Dr. Philip Davis (Del Mar College, Texas). Tsou is the project manager for the SDSU Sub-award. **SDSU Sub-award: \$180,000** (four years, 2008-2012). (<http://www.geotechcenter.org/>)
- 2006 PI (Tsou). San Diego Coast Keeper. “*Multimedia GIS Research Project*”. (seven months – Jan 10, 2006 – August 31, 2006). \$9,125. Completed. (<http://geoinfo.sdsu.edu/mediaGIS/>).

- 2004** CO-PI (Tsou): National Science Foundation, Advanced Technology Education Program (NSF-ATE): “*A Scalable Skills Certification Program in Geographic Information Systems (GIS)*” PI: Dr. Kendra Jeffcoat at San Diego Mesa College. Total Funding Amount: \$749,847. (Tsou is the project director for the SDSU sub-award) (four years, 2004-2008, started from October 1, 2004). **SDSU sub-award: \$222,060** Completed. (<http://geoinfo.sdsu.edu/hightech/>).
- 2004** CO-PI (Tsou): City of San Diego. “*The San Diego Watershed Common Grounds Project*”. PI: Karen Henry at City of San Diego, Storm Water Pollution Prevention Program. Total funding amount: \$1 million.. (30 months, started from July 1, 2004 to 2006). SDSU Funding Amount: \$ 333,564. Completed. (<http://www.sdbay.sdsu.edu/>).
- 2004 CO-PI (Tsou): South Coast Resource Conservation Development Council (State funding). “*Development of a Web-based Tool for Non-Point Source Pollution in the Newport Bay and Tijuana River Watersheds*”/ PI: Dr. Richard Wright. (20 months, started from November, 2004). Total funding amount: \$123,589. Completed.
- 2003 CO-Investigator (Tsou): NASA Research, Education and Applications Solution Network (REASoN) Project: “*A Border Security Decision Support System Driven by Remotely Sensed Data Inputs*”. PI: Dr. Douglas Stow. Funding Agency: National Aeronautics and Space Administration (NASA). (Five years, 2003-2008). \$1,837,771. Completed. (<http://geoinfo.sdsu.edu/reason/>).
- 2002 PI (Tsou): NASA ARC Project: “*Integrated Mobile GIS and Wireless Internet Image Servers for Environmental Monitoring and Management*”. Funding Agency: National Aeronautics and Space Administration (NASA). \$70,500 (12 months, completed). (<http://map.sdsu.edu/mobilegis/>).
- 2001 PI (Tsou): NASA ARC Project: “*Web-based Geospatial Information Services For Natural Habitat Conservation and Management*”. \$41,000 (12 months, completed). (<http://map.sdsu.edu/arc/>).

Intramural Support (San Diego State University)

- 2000 PI: Grant-In-Aid Award: “*Software Agent Communication Mechanism for Distributing GIServices on the Internet*”. Funding Agency: San Diego State University Foundation. Funding Amount: \$8,000 (completed).
- 2000 PI: Faculty Development Program Award. “*Developing a Dynamic Architecture for Internet Mapping and Distributed GIServices*”, Funding Agency: San Diego State University. Funding Amount: \$5,000 (completed).

PUBLICATIONS

Scholarly Books

- Peng, Z.R. and Tsou, M. H. (2003). *Internet GIS: distributed geographic information services for the Internet and wireless networks*. (720 pages, publisher: John Wiley & Sons, Inc.). This is a co-authored book. My contribution of this book is 50% (around 360 pages). This scholarly book has been widely cited by many research papers and become one major literature in the research field of Internet GIS. The Google Scholar index (http://scholar.google.com/scholar?q=Internet+GIS&hl=en&btnG=Search&as_sdt=2001&as_sdt=on)

Edited Special Issue in Refereed Journals

- Tsou, M. H. and Leitner, M. (guest editors) (March 2013 issue). Special Content Issue: “**Mapping Cyberspace and Social Media**”. *Cartography and Geographic Information Science*. 2013.

National Research Council Report (2007): A Research Agenda for Geographic Information Science at the United States Geological Survey, The National Academies Press, Washington DC. Report by Committee on Research Priorities for the USGS Center of Excellence for Geospatial Information Science. Co-authors (committee members): R.Denaro, K. Beard-Tisdale, C. Brewer, M. Domaratz, P.Gong, R. McMaster, M. Tsou, and J. Wilson. http://www.nap.edu/catalog.php?record_id=12004

Articles in Refereed Journals

- Joseph Saltenberger, Yawen Li, Ming-Hsiang Tsou, Saima Bahramzi (accepted). Web GIS as a Useful Tool for the Health and Social Service Sector. *The International Journal of Healthcare Technology and Management*.
- Aslam AA, Tsou MH, Spitzberg BH, An Li, Gawron JM, Gupta DK, Peddecord KM, Nagel AC, Allen C, Yang JA, Lindsay S (In Press). The Reliability of Tweets as a Supplementary Method of Seasonal Influenza Surveillance. *J Med Internet Res*.
- Kim, Ick-Hoi, Tsou, Ming-Hsiang, & Feng, Chen-Chieh (2015) Design and implementation strategy of a parallel agent-based Schelling model. *Computers, Environment and Urban Systems*, 49, 30–41.
- Tsou, Ming-Hsiang, Jiue-An Yang, Daniel Lusher, Su Han, Brian Spitzberg, Jean Mark Gawron, Dipak Gupta & Li An (2013) Mapping social activities and concepts with social media (Twitter) and web search engines (Yahoo and Bing): a case study in 2012 US Presidential Election, *Cartography and Geographic Information Science*, 40:4, 337-348, DOI: [10.1080/15230406.2013.799738](https://doi.org/10.1080/15230406.2013.799738)
- Tsou, M. H. and Leitner, M. (2013). Editorial: Visualization of Social Media: Seeing a Mirage or a Message? In Special Content Issue: “Mapping Cyberspace and Social Media”. *Cartography and Geographic Information Science*. 40(2), pp. 55-60. http://www.tandfonline.com/doi/abs/10.1080/15230406.2013.776754#.U_ICBvldW0I

- Tsou, Ming-Hsiang, Ick-Hoi Kim, Sarah Wandersee, Daniel Lusher , Li An, Brian Spitzberg, Dipak Gupta, Jean Gawron, Jennifer Smith , Jiue-An Yang, Su Yeon Han (2013). Mapping Ideas from Cyberspace to Realspace: Visualizing the Spatial Context of Keywords from Web Page Search Results. *International Journal of Digital Earth*, 2013.
- Ick-Hoi Kim and Ming-Hsiang Tsou (2013). Enabling Digital Earth simulation models using cloud computing or grid computing: two approaches supporting high-performance GIS simulation frameworks. *International Journal of Digital Earth*, 2013. 6:4, 383-403.
- Nagel AC, Tsou MH, Spitzberg BH, An Li, Gawron JM, Gupta DK, Yang JA, Han Su, Peddecord KM, Lindsay S, Sawyer MH, (2013). The Complex Relationship of Realspace Events and Messages in Cyberspace: Case Study of Influenza and Pertussis Using Tweets, *J Med Internet Res* 2013;15(10):e237.
- Brian H. Spitzberg, Ming-Hsiang Tsou, Dipak K. Gupta, Li An, Jean Mark Gawron, Daniel Lusher, (2013). The Map is Not Which Territory?: Speculating on the Geo-Spatial Diffusion of Ideas in the Arab Spring of 2011. *Studies in Media and Communication*. Vol 1(1). 2013, pp. 101-115.
- Tsou, M. H. (2011). Revisiting Web Cartography in the United States: the Rise of User-Centered Design. *Cartography and Geographic Information Science*, 38 (3), 249- 256. [LINK \(PDF\)](#)
- Tsou, M. H. and Yanow, K. (2010). Enhancing General Education with Geographic Information Science and Spatial Reasoning. *Urban and Regional Information Systems Association (URISA) Journal*, Special Issue on Geospatial Education and Training. 22(2), 45-54. [LINK \(PDF\)](#)
- Tsou, M.-H. and Kim, I. H. (2010). Increasing Spatial Awareness by Integrating Internet Geographic Information Services (GIServices) with Real Time Wireless Mobile GIS Applications. *International Journal of Strategic Information Technology and Applications (IJSITA)*, 1(4), 42-54. [LINK](#)
- Kawabata, Mizuki, Thapa, Rajesh, Oguchi, Takashi, and Tsou, Ming-Hsiang (2010) Multidisciplinary Cooperation in GIS Education: A Case Study of US Colleges and Universities, *The Journal of Geography in Higher Education*. 34(4), 493- 509. [LINK \(PDF\)](#).
- Zhang, T., Tsou, M.-H., Qiao, Q., and Hu, B. (2010). Designing Integrated High Performance Web Portals for GIScience Research. *Journal of Internet Technology*. 11(6), 809-820.
- Zhang, T. and Tsou, M.-H. (2009). Developing a grid-enabled spatial Web portal for Internet GIServices and geospatial cyberinfrastructure, *International Journal of Geographical Information Science*. 23(5), pp.605-630. [LINK \(PDF\)](#).
- Jankowski, P., Tsou M.-H., and Wright, R.D. (2007). Applying Internet Geographic Information System for Water Quality Monitoring. *Geography Compass* 1/6 (2007): 1315–1337. [LINK \(PDF\)](#)
- Zhang, T. and Tsou, M.-H. (2005) The Integration of Grid-enabled Internet GIServices

and Geographic Semantic Web Technologies. In Special Issue on Distributed GIS, *Geographic Information Science* (the former journal of *Annals of GIS*), 11 (1), pp. 15-23. [LINK \(PDF\)](#).

- Tsou, M.-H., Guo, L., and Howser, T. (2005). A Web-based Java Framework for Cross-Platform Mobile GIS and Remote Sensing Applications. *GIScience & Remote Sensing*. 42(4).pp. 278-302. [LINK \(PDF\)](#).
- Tsou, M.-H. (2004). Integrated Mobile GIS and Wireless Internet Map Servers for Environmental Monitoring and Management, (the Special Issue on Mobile Mapping and Geographic Information Systems) in *Cartography and Geographic Information Science*. 31(3), pp. 153-165. [LINK \(PDF\)](#).
- Tsou, M.-H. (2004). Integrating Web-based GIS and On-line Remote Sensing Facilities for Environmental Monitoring and Management. In special issue on the potential of Web-based GIS, *the Journal of Geographical Systems*. 6(2), pp. 155-174. [LINK \(PDF\)](#).
- Tsou, M.-H., Guo L., and Stow D. (2003). Web-based Remote Sensing Applications and Java Tools for Environmental Monitoring, *Online Journal of Space Communication*, No. 3, http://spacejournal.ohio.edu/issue3/abst_tsou.html
- Tsou, M. H. and Bittenfield, B. P. (2002). A Dynamic Architecture for Distributing Geographic Information Services. *Transactions in GIS*, 6(4), pp. 355-381. [LINK \(PDF\)](#).

Chapters in Refereed Books

- Dipak Gupta, Brian Spitzberg, Ming-Hsiang Tsou, Mark Gawron, An Li. (in Press). Chapter 3: Of Mining and Mine Fields: Revolution in Paradigms of Data Analysis and Interpretation. In L. Fenstermacher (ed) *Countering Violent Extremism: A Multidisciplinary Perspective*. *Air University Press*.
- Tsou, M. H. and Kim, I. H. (2011) Creating GIS simulation models on a TeraGrid-enabled Geospatial Web Portal: A Demonstration of Geospatial Cyberinfrastructure. In *Advances in Web-based GIS, Mapping Services and Applications* (Volume in ISPRS Book Series). Edited by Songnian Li, Suzana Dragicevic and Bert Veenendaal. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang (2009). Chapter 48: The Integration of Internet GIS and Wireless Mobile GIS. In *Manual of Geographic Information Systems*, edited by Marguerite Madden, published by the American Society for Photogrammetry and Remote Sensing (ASPRS), pp. 923-933. [LINK \(PDF\)](#).
- Chang, Kuo-Chen and Tsou, Ming-Hsiang (2008). Chapter 6. New Approaches for Integrating GIS layers and Remote Sensing Imagery for Online Mapping Services. In *International Perspectives on Maps and the Internet*. (edited by M. P Peterson). Berlin: Springer. pp. 91- 102. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang and Curran, Judd M. (2008). Chapter 20. User-Centered Design Approaches for Web Mapping Applications: A Case Study with USGS Hydrological Data

in the United States. In *International Perspectives on Maps and the Internet*. (edited by M. P Peterson). Berlin: Springer., pp. 301-321. [LINK \(PDF\)](#).

- Tsou, Ming-Hsiang and Sun, Chin-Hong. (2007). Mobile GIServices Applications in Disaster Management, Book chapter in *Dynamic and Mobile GIS: Investigating Change in Space and Time*. (edited by Drummond, J, Billen, R., Forrest, D. and Joao, Ed. 2007. London: CRC Press (Taylor & Francis). (Innovations in GIS book series), pp. 213-236. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang. (2006). Bridging the Gap: Connecting Internet-based Spatial Decision Support Systems to the Field-based Personnel with Real time Wireless Mobile GIS applications. Book chapter in *Collaborative Geographic Information Systems* (Edited by Shivanand Balram and Suzana Dragicevic). Hershey, Pennsylvania: Idea Group, Inc., pp. 316-339. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang (2003). Chapter 14: An Intelligent Software Agent Architecture for Distributed Cartographic Knowledge Bases and Internet Mapping Services. In *Maps and the Internet*, M. Peterson (ed), Oxford: Elsevier Press, pp. 229-243. (published on behalf of the International Cartographic Association). [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang (2002). An Operational Metadata Framework for Searching, Indexing, and Retrieving Distributed Geographic Information Services on the Internet. In *Geographic Information Science - Second International Conference GIScience 2002*, M. Egenhofer and D. Mark (eds.), *Lecture Notes in Computer Science* Vol. 2478, Berlin: Springer. pp. 312-333. [LINK \(PDF\)](#).
- Tsou, Ming-Hsiang and Battenfield, Barbara P. (1997). A Direct Manipulation Interface for Geographical Information Processing. In: Kraak, M.J. and Melenaar, M. (eds.) *Advances in GIS Research II*. Taylor & Francis, London, U.K., pp. 905-915. [LINK \(PDF\)](#).

Encyclopedia Entries

- Tsou, M.H. (2008). Data Warehouse. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 94-95).
- Tsou, M.H. (2008). Distributed GIS. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 115-118).
- Tsou, M.H. (2008). Spatial Data Server. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 404-406).
- Tsou, M.H. (2008). Web Services. In Karen Kemp (editor). *Encyclopedia of Geographic Information Science*. London: SAGE. (pp 513-514).
- Tsou, M.H. (2010). Mobile GIS. In Barney Warf (editor). *Encyclopedia of Geography*. SAGE: Thousand Oaks. vol. 4, pages 1918-1921.
- Tsou, M.H. (2010). Internet GIS. In Barney Warf (editor). *Encyclopedia of Geography*. SAGE: Thousand Oaks. vol. 3, pages 1620-1623.

- Tsou, M.H. (2010). Distributed Computing. In Barney Warf (editor). *Encyclopedia of Geography*. SAGE: Thousand Oaks, vol. 2, pages 776-778.

Articles in Refereed Proceedings

- Tsou, MH, Woodruff, SI, Spitzberg, B, Reed, M, Moran, M., Gawron, M, Allen, C., Yang, J. (2014). Using GIS and Geo-targeted Social Media (Twitter) to Track Illicit Drug Use Trends in Space and Over Time. *GIScience 2014 Conference*, Vienna, September 23-26. Extended Refereed Abstract.
- Ming-Hsiang Tsou, Brian H. Spitzberg, Chris Allen, Anoshé Aslam, and Anna Nagel, Geo-Targeted Social Media Analytics for Tracking Disease Outbreaks and Public Opinion at the Municipal Scale. *2014 National Conference on Health Communication, Marketing, and Media*, Atlanta, Georgia. August 19-21, 2014.
<https://nphic.confex.com/cdc/nphic14/webprogram/Paper35448.html>
- Jean Mark Gawron, Dipak Gupta, Kellen Stephens, Ming-Hsiang Tsou, Brian Spitzberg and Li An. (2012). Using Group Membership Markers for Group Identification, *Proceedings of the Sixth International AAAI Conference on Weblogs and Social Media*, p.467- 470.
- Tsou, Ming-Hsiang (2011). Mapping Cyberspace: Tracking the Spread of Ideas on the Internet. Refereed Proceedings of the 25th International Cartographic conference, July 3-8, 2011, Paris, France.
http://icaci.org/documents/ICC_proceedings/ICC2011/Oral%20Presentations%20PDF/D3-Internet,%20web%20services%20and%20web%20mapping/CO-354.pdf
- Tsou, Ming-Hsiang, Zhang, Tong, and Kaiser, John (2007) Internet GIServices for Homeland Security, Geoinformatics 2007 Conference (17–18 May 2007)
http://gsa.confex.com/gsa/2007GE/finalprogram/abstract_122039.htm .
- Tong Zhang, Ming-Hsiang Tsou, Qinghua Qiao, and Lin Xu (2006). Building an intelligent geospatial cyberinfrastructure: an analytical problem solving approach, Proc. SPIE, Vol. 6420, 64200A (2006); doi:10.1117/12.712656. Conference Title: Geoinformatics 2006: Geospatial Information Science.
- Tsou, M.H. and Battenfield, B.P. (1998). Client/Server Components and Metadata Objects for Distributed Geographic Information Services. *Proceedings, GIS/LIS '98*, Fort Worth, TX, November, 1998: 590-599. [**LINK \(PDF\)**](#).
- Tsou, M.H. and Battenfield, B.P. (1998). An Agent-based, Global User Interface for Distributed Geographic Information Services. *Proceedings of the 8th International Symposium on Spatial Data Handling*, Vancouver, British Columbia, July, 1998: 603-612. [**LINK \(PDF\)**](#).

White Papers:

- Ming-Hsiang Tsou and Jennifer Smith (2011). **Free and Open Source Software for GIS education** , GeoTech Center. [**LINK \(PDF\)**](#)

Book Review

- Tsou, Ming-Hsiang (2014). Book Review: Big data: techniques and technologies in geoinformatics. *Annals of GIS*, 20(4), 295-296.
- Tsou, Ming-Hsiang (2008). Book Review: Map-based Mobile Services: Theories, Methods, and Implementations by Liqui Meng, Alexander Zipf, and Tumasch Reichenbacher (Eds.). *Annals of GIS*. 15(1), p. 73.
(<http://www.informaworld.com/smpp/content~db=all~content=a916953862~frm=titlelink>)

Invited Articles in Major GIS Professional Magazines and Newsletters

- Tsou, M.H., Stow, D., and J. Kaiser. (2006). Spatial Decision Support Services Enhance Homeland Security. *GeosIntelligence*, Mar/Apr 2006. pp. 18-23. [LINK \(PDF\)](#).
- Tsou, 2005. Recent Development of Internet GIS at GIS@development:
http://www.gisdevelopment.net/technology/gis/techgis_002pf.htm
- Tsou, M. H. (2004). Present realities and the future of Internet GIS. *GIS@Development Magazine*. July 2004, vol. 8 (7). Pp. 29-32. (URL:
<http://www.gisdevelopment.net/magazine/years/2004/july/29.shtml>)
- Tsou, M. H. (2004). Tracking the 2003 San Diego Wildfire. *CSU Geospatial Review*. Spring 2004, Vol. 2(1). Pp.1.

SYNERGISTIC ACTIVITIES

- **Founding Director** of the Center for Human Dynamics in the Mobile Age at San Diego State University (<http://humandynamics.sdsu.edu/>), a transdisciplinary research center of excellence to facilitate integrated research efforts and projects from GIScience, Public Health, Social Science, Sociology, and Communication.
- The Co-Chair of the NASA Earth Science Data System Working Group (ESDSWG) Standard Process Group (SPG) from 2004 to 2007. Elected by the SPG members during the NASA ESDSWG annual meeting at Orlando, Florida, January 2004. (*Website of SPG: <http://spg.gsfc.nasa.gov/>*)
- The Chair of the Cartographic Specialty Group (CSG) (2007 – 2008) in the Association of American Geographers.
- The Chair of the Cyberinfrastructure Specialty Group (2012-2013) in the Association of American Geographers.
- Invited to serve on the Scientific Boards for GIS PLANET 2005 (International GIS Conference), GIScience 2008 International Conference, and GIScience 2010 International Conference. GIScience 2012 conference. GIScience 2014 conference (Reviewing conference paper submissions).
- Invited to serve on the Scientific Committee of WebMGS 2010 and WebMGS2011 (ISPRS: 1st International Workshop on Pervasive Web Mapping, Geoprocessing and Services, the International Society for Photogrammetry and Remote Sensing) (Reviewing

conference paper submissions).

- Invited to serve on the Program Committee of ACM SIGSPATIAL International Workshop on High Performance and Distributed Geographic Information Systems (HPDGIS) 2010 (<http://www.cigi.illinois.edu/hpdgis10/committee.php>) (Reviewing conference paper submissions).
- Invited to create a Webinar workshop for the American Society for Photogrammetry and Remote Sensing (ASPRS) for the ASPRS certification program, June 10, 2010 and March 15, 2011.
- Invited as an international research proposal reviewer for several scientific research foundations in North America, Europe, and Asia.
- Invited as a research program proposal review panelist for National Science Foundation and as a research proposal external reviewer for National Science Foundation, NASA, and U.S. Civilian Research & Development Foundation (2007 - 2013)
- External reviewer for tenured faculty promotion and non-tenured faculty promotion.

2000-2001 Faculty Fellowship (1/4 salary), the Education Center on Computational Science and Engineering (ECCSE) at San Diego State University. The ECCSE is part of the Education, Outreach, & Training Thrust of the National Partnership for Advanced Computational Infrastructure (NPACI) and San Diego Supercomputer Center (SDSC) Partnerships.

Manuscript Reviewer for Academic Refereed Journals

- *Proceedings of the National Academy of Sciences (PNAS)*
- *Annals of the Association of American Geographers.*
- *Annals of GIS*
- *Applied Spatial Analysis and Policy*
- *Cartographica*
- *Cartography and Geographic Information Science (CaGIS)*
- *The Cartographic Journal*
- *Computers & Geosciences*
- *Computers, Environment and Urban Systems*
- *Geographical Analysis*
- *Geomatica*
- *IEEE Computer Graphics and Applications*
- *International Journal of Geographical Information Science*
- *International Journal of Digital Earth*
- *Journal of Geographic Information Science*
- *Journal of Geographical Systems*
- *Journal of Environmental Management*
- *Photogrammetric Engineering and Remote Sensing,*
- *Professional Geographers*
- *Journal of Photogrammetry and Remote Sensing*
- *Journal of Environmental Management*

- *The Professional Geographer*
- *The Internet Encyclopedia* (published by John Wiley & Sons, Inc.)
- *Transactions in GIS*

Membership in Professional Organizations

- Association of American Geographers (1999 – present)
- American Congress on Surveying and Mapping and Cartography and Geographic Information Science Community (2000 – present)
- Urban and Regional Information Systems Association (2003-2005)
- The North American Cartographic Information Society (2009 – 2011)

Academic Colloquia, Speeches, and Keynotes (invited):

- 2014, 6/26. 2014 **Keynote speaker, TGIS Geoinformatics UGIS Joint International Conference**, Kaohsiung, Taiwan. “*Knowledge Discovery in Big Data: A Research Frontier of GIScience*”.
- 2014, 5/24, **Taiwan Geography Conference Keynote Speaker**: “*Visualizing and Mapping Big Data: A New Research Frontier in GIS and A New Opportunity for Geography Education.*” National Taiwan Normal University.
- 2014, 5/23, Invited Speech at Taiwan National Science and Technology Center for Disaster Reduction. “*Using Big data and social media for disaster warning, evacuation, and recovery.*”
- 2014, 6/02 Beijing Union University Colloquium : “*Building Smarter Cities with Big Data and Social Media.*”
- 2014, 5/30 Beijing Forest University Colloquium: “*Using Big Data and GIS for Forest Resource Management.*”
- 2014, 5/29 China Geological Info Key Lab Seminar: “*The Future of Internet GIS: Linking Cloud Computing and Mobile Technology.*”
- 2014, 5/27 Taiwan Feng-Chia University. Colloquium “*GIS Research Opportunities in Big Data and Social Media Analytics.*”
- 2014, 5/26 National Taiwan Ocean University Colloquium: “*Using Big Data for Environmental Monitoring and Fishery Resource Management.*”
- 2013, September 18. University of Redlands, Colloquium: “*Golden Opportunity: Mining Big Data and Social Media with GIS and Spatial Analytics.*” at the Center for Business GIS and Spatial Analysis.

- March 29, 2012. Invited **Colloquium at National Taiwan University**. Department of Geography. *"Rediscovering Geography with Internet GIS and Virtual Globes: Case studies in Disaster Management and GIS Education"*.
- March 17, 2012. **Keynote Speech at the 8th Taipei International Digital Earth Symposium** TIDES 2012 , May 14th ~ 18th, 2012 , Taipei, Taiwan. Conference Theme: Digital Earth : The Next Generation. *"Mapping Social Media and Diffusion of Innovations on Digital Earth: Revealing the Invisible World"*.
<http://deconf.pccu.edu.tw/2012TIDES/en-speech-highlight-ks.html>
- March 16, 2012. Invited speech at **Academia Sinica**, Taipei, Taiwan. *"Research Challenges and Opportunities for Mapping Cyberspace and Social Networks"*, In Novel Geospatial Information Architecture and Services Workshop, Taipei, Taiwan.
- March 4, 2010. Invited speech at TELDAP International Conference, **Academia Sinica, Taipei, Taiwan (ROC)**, *"Developing Geospatial Cyberinfrastructure to Archive and Share Spatial Knowledge Digitally"*.
- March 1, 2010. Colloquium at the GIS Center, **Feng Chia University**, Taiwan. *"Using Web 2.0 and Mobile GIS to Promote Geospatial Technology Education and GIScience Research"*.
- May 21, 2009. **Invited keynote speech at FORMOSAT-2 5th Anniversary Conference**, National Space Office Program (NSPO), Hsinchu, Taiwan (ROC), *"The Integration of FORMOSAT-2 and NASA Imagery for San Diego Wildfire Emergency Responses and Web GIS Education"*.
- April 2, 2009. Colloquium at the Department of Geography, **University of Tennessee**. *"New Research Directions of Internet GIS and Web-based Spatial Decision Support Systems for Disaster Management."*
- March 29, 2008. The GeoVisualization Colloquium Series, **Macalester College** in St. Paul, Minnesota. Title: "New Research Directions of Internet GIS, and Web-based GeoVisualization for the San Diego 2007 Wildfires."
- March 11, 2008. **Invited keynote speech** at the Japan's "Curricula for Geographic Information Science" conference, **the University of Tokyo**, Japan. Title: *"Integrating Web-based GIS, On-line Videos, and Collaborative Tools for GIS education"*.
(<http://curricula.csis.u-tokyo.ac.jp/activity/t0311.php>).
- January 17, 2008, Colloquium at the Department of Geography, **UC Santa Barbara**. *"New Research Directions of Internet GIS and Web Mapping Services and Lessons Learned from the San Diego 2007 Wildfires."*

- March 5, 2008, Colloquium at the Department of Geography, **National Taiwan Normal University**, Taiwan. Title: “*Future Research Directions of Internet GIS and Web Mapping Services and Lessons Learned from the San Diego 2007 Wildfires*”
- March 14, 2008, Colloquium at the Institute of Space and Earth Information Science, **the Chinese University of Hong Kong**. Title: “*New Research Directions of Internet GIS and Web Mapping Services and Lessons Learned from the San Diego 2007 Wildfires.*”
- March 17, 2008, Colloquium at the Department of Geography, **National University of Singapore**. Title: “*New Research Directions of Internet GIS and Disaster Management and Lessons Learned from the San Diego 2007 Wildfires*”.
- March 21, 2008, Colloquium at the Department of Geography, **National Taiwan University**. Title: “*Rediscovering Geography with Internet GIS and Virtual Globes: Case studies in Disaster Management and GIS Education*”.
- June 8th, 2005, Colloquium at Department of Geography, **National Taiwan Normal University**, Taipei, Taiwan. “*Internet GIS and Geospatial Information Technology*”.
- June 19th, 2005, Colloquium at **National Taiwan University**, Taipei, Taiwan. *Web-based Geospatial Technology*.
- June 14th, 2005 .Colloquium at the Electronic Engineering Department, **National Cheng Kung University**. *The Impact of Internet GIS*.

VI. SERVICE TO THE UNIVERSITY AND THE COMMUNITY

Service for the Community

2007 and 2003 Established interactive Web-based mapping services for San Diego Wildfire 2003 and 2007 [HTTP://MAP.SDSU.EDU](http://map.sdsu.edu). This Web site (<http://map.sdsu.edu>) was created immediately on October 27, 2003 (Monday morning) to provide Web mapping services for helping our local community. This site was updated daily and provides maps of the San Diego wildfires with various live ArcIMS Web mapping services, static maps, and research articles. This Web site became an important resource for the local GIS community at San Diego during the wildfire incident. Many local governments (City of San Diego, County of San Diego) and related agencies (San Bernardino Joint Information Center, USDA Forest Service, Southern California Burned Area Emergency Response (BAER) team) and on-line news media (www.signonsandiego.com) refer to this website as one of the major resources for mapping San Diego wildfire.

Numerous e-mails are flooding in to thank SDSU for creating the site. Among them:

“I have been keeping track of the fires. My daughter is a sophomore and living in El Cajon. The maps from your department are fantastic! Thanks for putting them out there.”

–a very worried parent

“Thanks for the map. It is very helpful in understanding what went on in San Diego.”

-Anonymous, Long Island, New York

“I want to congratulate you and your colleagues on the magnificent Web site you created for the recent fires.”

-Economics professor at UCSD

More information about this Web site can be found at the November 17 issue of SDSUniverse (<http://www.sdsuniverse.info/story.asp?id=11596>) and the 360 Magazine (Spring 2004) page 8.

On October 21, 2007. This website was activated again. Tsou was leading the San Diego GIS force group, a volunteer group of SDSU faculty and students to established interactive Web-based mapping services for the new San Diego Wildfire 2007 for helping local San Diego community. Based on the Web server transaction logs, **236,693 unique visitors** visited the Web site during the first week of wildfires in 2007. The City of San Diego, the Southern California Burned Area Emergency Response (BAER) team, and the County’s emergency fire information center created Web links from their wildfire pages to the website.

TV-News Interview:

2014, October 20, CBS8News - SDSU professor to use Twitter to alert San Diegans

2014, October 15, KPBS – San Diego, SDSU Professor Selecting 'Tweeters' To Spread Emergency Messages

2014, January 31, ABC10News – San Diego, ‘SDSU researcher: Using Twitter to track the flu could save lives’

2013, November 08, KPBS Interview: Social Media Analysis and the San Diego Mayor's Race.

2013, December 3, Union Tribune San Diego, Researcher to Test if Twitter can help spot flu trends.

2013, November 21, HuffPost, ‘Twittter Could Tell You Where Flu is Ramping Up, Study Suggests’

2013, November 19, ScienceDaily, 'Hashtag Health'

2013, November 9, News Center, 'Hashtag Health'

2012, November 15, KPBS, 'Using Twitter To Predict Elections—Or The Flu'. Tsou and Dipak Gupta, both San Diego State University professors, are part of a project called Mapping Ideas. The idea is to track and analyze publicly-accessible websites, as well as social media like Twitter and Facebook, for key words and phrases and then track their spread. The project tracked the frequency of mentions of “Obama” and “Romney” on Twitter the week before the election. Remarkably, its results closely resemble the polls taken during that last week. *Click here to see this video on Youtube.*
<http://www.kpbs.org/news/2012/nov/15/using-twitter-predict-elections-or-flu>

November 30, 2005 KUSI/News (Morning News) interview. Introducing the recent wildfire research with GIS and remote sensing technologies with Dr. Stow.

June 20, 2002 KUSI/News (Morning News) interview. “The introduction of mobile GIS applications and related GIS/Remote Sensing research activity in geography department, SDSU” with Dr. Stow. (on-line archive: <http://advancement.sdsu.edu/marcomm/news/clips/Archive/Jun2002/062002/062002rod-geog2.mpg>)

San Diego Chinese American Science and Engineering Association (SDCASEA):

Board of Directors (2002 - 2004, 2012 - present) – nominated and elected in February 2002. The San Diego Chinese-American Science and Engineering Association is one of the major Chinese-American associations in San Diego area (354 members). The goal of this association is to facilitate the understanding of Chinese/Taiwanese culture and to provide student scholarships and community services to San Diego local communities.

Webmaster -- 2002-2004. Design and maintain the web site of San Diego Chinese American Science and Engineering Association.
(<http://www.sdcasea.com>).

Coordinate both Patrick Henry High School students (2007, 2008, 2009, 2010, 2011, 2012, 2013) and Helix High School students (2006, 2007, 2008) visits to the GIS computer laboratory with half day tours (including one hour Web GIS demo by Tsou, one hour GPS treasure hunting, and one hour SDSU campus tour).

Exhibitor for Patrick Henry High School Engineering Academic Career Exploration Fair, 2009 and 2010. Introduce GIS technology for students as potential career paths.

Served on the Kyoto Scholarship Judging Committee (for high school students), 2005 and 2006. *The Kyoto Laureate Symposium Gala*. Coordinated by the San Diego Foundation.

VII. TEACHING INNOVATIONS:

- The GIS iBook development: the "Introduction to GIScience" Collaborative Textbook Project for iPad devices. Editors: Ming-Hsiang Tsou and Cynthia Paloma (graduate student). URL: <http://mappingideas.sdsu.edu/ibook/>
- GIS Career and Education Awareness website and online learning modules: <http://geoinfo.sdsu.edu/hightech/>
- Geospatial Technology Summer Workshops for community college teachers and high school teachers (2009 – 2013): <http://geoinfo.sdsu.edu/hightech/GISWorkshop2012.htm>
- GIS Class Web Sites (San Diego State University) : (including lecture notes, on-line forum, and web-based exercises).
 1. GEOG 104 (Geographic Information Science and Spatial Reasoning): <http://map.sdsu.edu/geog104>
 2. GEOG 381 (Computerized Map Design): <http://geography.sdsu.edu/People/Pages/tsou/geog381/>
 3. GEOG 484 (Introduction to Geographic Information Systems): <http://geography.sdsu.edu/People/Pages/tsou/geog484/>
 4. GEOG 583 (Internet Mapping and Distributed GIServices): <http://map.sdsu.edu/geog583/>
 5. GEOG 581 (Cartographic Design): <http://map.sdsu.edu/geog581/>
 6. Wireless mobile GIS: GEOG 789 Seminar (Spring 2010 Seminar): <http://geography.sdsu.edu/People/Pages/tsou/GEOG780.pdf>
 7. Web Mapping and Social Media: GEOG 780 Seminar: (Fall 2012) <http://geography.sdsu.edu/People/Pages/tsou/documents/GEOG780-Web-Mapping-and-Social-Media.pdf>
- Social Networking Media (Facebook) for Teaching Aids: a Facebook Page for the introduction of Geospatial Technology. (<http://www.facebook.com/pages/Geospatial-Technology-at-SDSU-GEOG104-GEOG381-GEOG583/129010146571?ref=mf>).
- YouTube Channel for Geospatial Technology:
URL: <http://geoinfo.sdsu.edu/hightech/GISVideos.htm>

VIII. STUDENT ADVISING

Ph.D. student advising (committee chair/advisor at San Diego State University):

1. Chistopher Allen (Ph.D. in Geography, in progress). *Social Media Analytics and Social Well-being Index*.
2. Jiue-An (Jay) Yang (Ph.D. in Geography, in progress). *Rediscovering Innovation Diffusion in cyberspace with Contemporary Social Media and Social Network*.
3. Su Yeon Han (Ph.D. in Geography, in progress). *The Variety of Analyzing and Visualizing Social Media Messages*.

4. Ick Hoi (Rick) Kim (Ph.D. in Geography, **graduated August 2012**). *Developing High Performance GIS Simulation Models on Geospatial Cyberinfrastructure: A Case Study of Population Change Models with Grid Computing and Cloud Computing Technologies*. (Visiting Fellow at National University of Singapore, 2013).
5. Justin Shepard (Ph.D. in Geography, taking leave in Fall 2010). *VGI Credibility of Natural Disaster Response Reporting*.
6. Tong Zhang (Ph.D. in Geography, **graduated December 2007**). *Developing Grid-enabled Internet GIS Service Portals to Support Geospatial Cyberinfrastructure: A Pilot Study in Accessibility*. (Current position: Associate Professor at the National Key Laboratory for Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), Wuhan University, P.R. China).

Ph.D. student advising (committee member at San Diego State University):

1. Nicole Simons (Ph.D. **graduated 2013**, San Diego State University). *Knowledge-based rapid assessment decision support tool for wildfire events*.
2. Christopher D. Lippitt (Ph.D. **graduated 2012**, San Diego State University). *Science on the Fast Track: Real-Time Remote Sensing for Earth Science and Environmental Management*.
3. John Ryan (Ph.D. in Geography, **graduated May 2004**, San Diego State University). *Using Spatial Updating Bias to Explore the Robustness of a Collaborative Geovisualization Model*.

Ph.D. student external committee member (outside SDSU):

1. Myunghwa Hwang (Ph.D. in progress, School of Geographical Sciences & Urban Planning, Arizona State University). *Applying Spatial Analytical Web Services: Methods & Effectiveness*.

Master student advising (committee chair/advisor):

1. Elias Issa (M.S. in GIScience, in progress).
2. Jessica Dozier (M.S. in GIScience, in progress).
3. Lesley Handa (M.S. in GIScience, in progress). *Examining the Past, Present and Future Conservation of the Wintering Waterbirds in Mission Bay using GIS Field Methods and Climate Change Modeling*.
4. Yi-Ting Chung (M.S. in GIScience, in progress) *Utilizing Mobile Technology in GIS Education: A Case Study of Using iPad and iBook in Fieldwork and Location Based Exercise*.
5. Cynthia Paloma (M.S. in GIScience, in progress) *Collaborative Multimedia Learning platform for GIScience Education*.
6. Philip Elder (M.S. in GIScience, **graduated in May 2013**) *Designing and Implementing a Web Mapping Service with User-Centered Design and the Sensor Web: A Case Study in the San Diego River Watershed*.
7. Daniel Lusher (M.S. in GIScience, **graduating in May 2013**) *IP Addresses: Exploring the nature of the geographic data and the patterns that can be extracted*.

8. Nicole Stotz (M.S. in GIScience, in progress) *Usability Evaluation of Google Fusion Table for the Display of Very Large Datasets.*
9. John Urata (M.S. in GIScience, , **graduated in December 2012**). *Examining Mobile Phone Locational Privacy with Twitter's Social Networking Application.*
10. Jennifer Smith (M.S. in GIScience, **graduated in August 2011**) *Effective Animation Techniques for 3D visualizations of urban landscapes with a spatial and temporal dimension.*
11. Jeremy Hamm (M.S. in GIScience, **graduated in December 2010**). *The Optimization of a Street Network Model for Emergency Response Analysis within a Geographic Information System.*
12. Diana Smith (M.S. in GIScience, **graduated in May 2010**). *Formalizing and Evaluating Principles of Web-Based Animated Cartography Using Arctic Sea Ice Examples.*
13. Justin H. Shepard (M.S. in GIScience, **graduated in August 2009**). *Web-based GIS modeling in an adaptive management framework: A case study of the Carlsbad Habitat Management Plan.*
14. Lynn Ford (M.S. in GIScience, **graduated in August 2009**) *An Open Source Approach To Develop Web-Based Remote Sensing Tools for Clementine Lunar Imagery Analysis and 3D Visualization.*
15. Kenneth Garner Smith Jr. (M.S. in GIScience, **graduated in May 2009**). *Geovisualization and Spatial Statistical Analysis of Demographic Characteristics and Auto Collision Frequency.*
16. Charles Adler (M.S. in GIScience, **graduated in May 2008**). *Designing an Informationally Supportive Three-Dimensional Web Mapping Application for Urban Planning: A Case Study for Centre City Development Corporation (CCDC), a Redevelopment Agency.*
17. Kimberly Dodson (M.S. in GIScience, **graduated in August 2008**). *Designing Web-based Mapping Tools for Transportation Decision Making: A Case Study of Traffic Census in San Diego.*
18. Ting-Hwan Lee (M.S. in GIScience, **graduated in August 2008**). *Visualizing Web-based Information Dissemination and Diffusion Patterns: A Case Study for San Diego Wildfire 2003.*
19. Nathan G. Mendenhall (M.S. in GIScience, **graduated in 2007**). *Applying User-Centered Design Method for the Development of Web-based Mapping Services: Case Study with Biology and Environmental Planning.*
20. Jung Eun (Jesse) Hong (M.S. in GIScience, **graduated in 2007**). *Integrating a Real-Time Mobile Geographic Information System and a Web-Based Mapping Application for Campus Safety: A Case Study at San Diego State University.*
21. Jing-Yi Chen (M.S. in GIScience, **graduated in 2006**). *Web-Based GIS for High School Teachers and Students: A New Approach to Teaching and Learning with GIS.*
22. Andy Gordon (M.S. in GIScience, **graduated in 2006**). *Accommodating Hypsometrically Tinted Maps for Color-Vision.*
23. David Palomino (M.S. in GIScience, **graduated in 2005**) *Geographic Visualizations within a Web-based Mapping Environment for Water Resource Management.*
24. Judd M. Curran (M.A. in Geography, **graduated in 2005**) *Web-based Geospatial Information Services and Analytical Tools for Management of Real-time Surface Water Hydrology.*

25. Susmita Panchal (M.S. in GIScience, **graduated in 2005**) *Intranet-based GIS for Environmental Compliance Management in a Gas and Electric Utility* (Geography).
26. Yuying Li (M.A. in Geography **graduated in 2003**) *Software Agent-based Intelligent Data Processing System for Environmental Models*.
27. Rasmus H. Larsen (M.A. in Geography, **graduated in 2003**) *Distributed Cartographic Knowledge Bases: An Intelligent Software Agent Approach* (Geography).
28. Liang Guo (M.A. in Geography, **graduated in 2003**) *Web-based Geospatial Information Services and Analytical Tools for Natural Habitat Conservation and Management*.

Master student advising (second reader):

1. Anoshe Aslam (MPH in Public Health, **graduated in 2014**). *The Reliability of Tweets as a Supplementary Method of Seasonal Influenza Surveillance*.
2. Anna Nagel (MPH in Public Health, **graduated in 2013**). *The complex relationship of real-space events and messages in cyberspace: A case study of influenza and pertussis using tweets*.
3. Marilyn Stowell (M.S. in GIScience, **graduated in 2014**). *Examining a Knowledge Domain: Interactive Visualization of the Geographic Information Science and Technology Body of Knowledge*.
4. Joseph Saltenberger (M.S. in GIScience, **graduated in 2011**). *An Interactive Web-Based Atlas for the Spokane Valley-Rathdrum Prairie Aquifer*.
5. Bahador Nosrat (M.S. in GIScience, **graduated in 2010**) *Identifying Spatial Relationships Between Microbial Metabolism and Human Impact*.
6. Leigh Schwartz (M.A. Geography, **graduated in 2004**) *The Digital Ground Beneath Our Feet: Cultural Geography in the Suikoden Video Game Series*.
7. Mark T. Cunningham (M.A. Geography, **graduated in 2001**) *The San Diego Bay Marine Information System: The Application of a Real-time Geographical Information System to Maritime Operational Decision Making*.