SPRING 2015 TECHNOLOGY & DEMOCRACY WORKSHOP (GEOG 650)

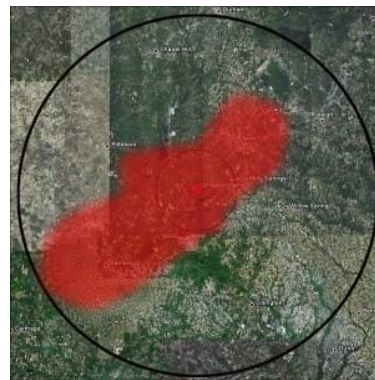Mondays 3:35-6:35 SA 204
Instructor: Dr. Scott Kirsch, Geography Department, UNC-Chapel Hill
Office: SA 306   Office hours: W 1-3; F 2-3; or by appt.
Email: kirsch@email.unc.edu   website: http://kirschgeographies.web.unc.edu
course homepage via: https://sakai.unc.edu/   course blog: https://unfinishedatlas.web.unc.edu/

Overview

Are our technological choices open to democratic participation? How are the relations between technology and democracy being reconfigured, and how might they be? GEOG 650 **Technology & Democracy Workshop** is a **research-oriented experiential and service learning course**. Students explore political, cultural, and geographical dimensions of technological change around key social and environmental issues. During Spring 2015, course themes will include geographies of energy and waste, with a focus on North Carolina settings as well as global contexts.   Students produce digital atlases, including original maps and reproductions of archival images, and publish them on websites created through UNC's Digital Commons initiative. Bringing together a combination of seminar, research workshop, and experiential and service learning approaches, student research groups work in collaboration with community partners and UNC faculty and graduate students to produce and communicate research that addresses important questions impacting North Carolina communities.

Through an inquiry-based learning approach, the purpose of the course is for students to explore the implications of living in a pervasively technological society. As a research-oriented course, students will learn some basic research and information-and-communication technology skills, including archival methods, web-based mapping applications, 'counter-mapping', and website building. Students will also be exposed to a range of practitioners, perspectives, and problems from inside and outside the university, including community partners, including the Cedar Grove Institute for Sustainable

Communities (Mebane, NC), and will work on research projects related to the work and mission of these organizations. Students will develop research, cartographic, and collaborative project skills which may be applied in future professional, civic, or scholarly projects.

Format

Unusual. Experimental. Project- and methods-oriented. Rather than being evaluated through quizzes and exams, students will be evaluated mainly on the basis of knowledge produced, including active participation in class activities as well as individual and group research and mapping projects. The premise is to combine an inquiry-based learning approach – stemming from the idea that we learn most by asking questions and seeking answers – with experiential education and community engagement. The weekly seminar will be organized around readings and formal discussion of course texts; occasional lectures and research presentations (by the instructor as well as visitors); methods workshops; artistic, documentary and new media resources; in- and out-of-classroom visits with a range of experts, organizations, and institutions; and ultimately, our own collaborative research projects. Hence, a "technology & democracy workshop."

Research emphasis. This is also a course about *doing* research, emphasizing fundamental concerns about the evaluation of sources, interpretation of different kinds of geographical data, explanations, analyses, representation and communication of research findings. Students will develop skills in identifying research problems, in listening to and communicating with experts and community groups, and in working collaboratively on practical technological and environmental challenges and problems facing North Carolinians. Special workshops running throughout the semester will focus on methodology and research practices; cartography and new media; the archive and open source; and other themes. While a set of general project frameworks will be designed for students to step into, students will develop projects in areas of special interest, in conversation with community partners (who will be introduced during the course), and work collaboratively to produce informative, digital media-based projects that include both textual and graphic components. Student research groups will produce digital atlases designed to inform and promote public discussion of critical issues in technology and society, focusing this year on geographies of energy and waste in North Carolina, and to serve as a continuing resource for the Technology & Democracy workshop.
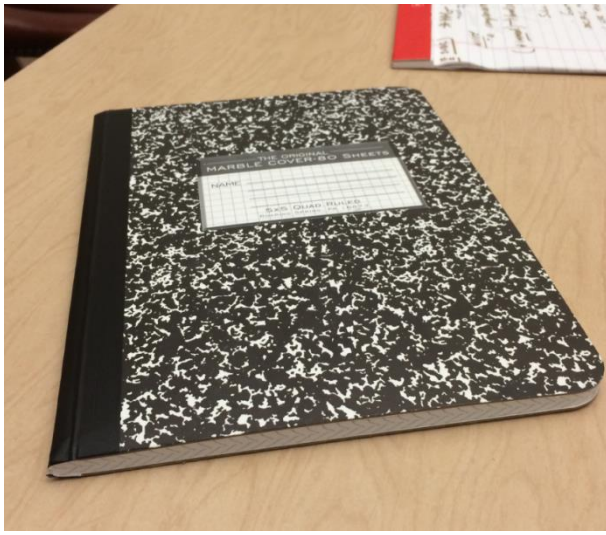
In this research-exposure course, you will be working with a ***Graduate Research Consultant*** **(GRC), Pavithra Vasudevan** (email: pavithra@email.unc.edu), who will assist you in the research project. The GRC Program is sponsored by the Office for Undergraduate Research (www.unc.edu/depts/our); you may be able to use this research-exposure course to meet a requirement of the Carolina Research Scholars Program (http://www.unc.edu/depts/our/students/students_crsp.html).

Requirements

⇒	Informed class participation	20%
⇒	'Almost weekly response exercises'	20%
⇒	'Mappings' projects (2): geographies of energy & waste	10%
⇒	Annotated bibliography	10%
⇒	Group research projects (includes digital atlas and resource pages; research paper)	30%
⇒	Final reflection paper	10%
		100

All assignments (and due dates) will be explained in class and posted on sakai as appropriate. Since student contributions to seminar discussion and research groups are among the major emphases of the course, keeping up with course readings and informal weekly response assignments is essential. Although there are no "textbooks" in technology & democracy, you should *expect to read between ~35-65 pages per week* from a variety of sources – academic journals, book chapters, periodicals, websites, in addition to your reading for your research projects, along with some additional materials that may be distributed by class visitors or practicums -- so please set aside time accordingly. Course requirements will include more than 10 pages of written work. When's the exam? Never!

<u>Textbook:</u>

None. Additional required readings, *to be read in advance of each week's meeting*, are listed in the schedule below, including several chapters from *Key Methods in Geography* (Clifford et al., eds, 2010), abbreviated as [KMiG]. Unless indicated, all texts will be posted as pdfs or linked on *sakai*.

<u>Provisional Schedule & Reading List</u>

Since there are many moving part to syllabus, it remains subject to revision!

> **Part I: KEYWORDS – TECHNOLOGY & DEMOCRACY**

Jan 12   *Introductions; Manufactured Landscapes*

Jan 19   **NO CLASS – MLK Holiday**

Jan 26   *Rethinking the arts & sciences? Perspectives on technology & environments*

- Raymond Williams, "**Nature**" in *Keywords* (Oxford University Press, 1983), 219-224.

- Andrew Ross, "**Technology**" in T. Bennett, L. Grossberg, M. Morris (eds), *New Keywords: A Revised Vocabulary of Culture and Society*.

- Steven Shapin, "**Science**" in T. Bennett, L. Grossberg, M. Morris (eds), *New Keywords: A Revised Vocabulary of Culture and Society*, 314-317.

- Peter Kropotkin, "**What geography ought to be**" *The Nineteenth Century* 18 (1885). Republished (abridged) in H. Bauder and S. Engel-Di Mauro (eds), *Critical Geographies: A Collection of Readings* (Praxis (e)Press, 2008), 11-22.

- Heesen, A.T. "**The notebook: a paper-technology**" In B. Latour and P. Weibel *Making things public: atmospheres of democracy* (Cambridge, Mass, MIT Press, 2005), pp 582-589.

- Clifford, French and Valentine, "**Getting Started in Geographical Research** …" [KMiG, 3-15]

Feb 2   *Rethinking Democracy*

- Raymond Williams, "**Democracy**" in *Keywords* (Oxford University Press, 1983), 93-98.

- Clive Barnett, "**Democracy**" in D. Gregory et al. (eds), *The Dictionary of Human Geography* (Oxford: Wiley-Blackwell, 2009, 5th edn), 150-152.

- Noortje Marres, "**Issues spark a public into being: A key but often forgotten point of the Lippmann-Dewey debate**" in B. Latour and P. Weibel (eds), *Making Things Public: Atmospheres of Democracy* (ZKM and MIT Press, 2005), 208-217.

- Winner, Langdon. 1995. "**Citizen Virtues in a Technological Order**" in A. Feenberg, A. Hannay (eds), *Technology and the Politics of Knowledge*, pp. 65-84. Indiana University Press.

- Institute for Ethics & Emerging Technologies. **Technoprogressive Declaration – Transvision 2014**. Posted Nov 22, 2014. http://ieet.org/index.php/IEET/more/tpdec2014

- THE LOKA INSTITUTE For Science and Technology of, by & for the People. http://loka.org/

Part II: RESEARCH & MAPPING PRACTICUM: USING GEOGRAPHICAL PERSPECTIVES IN WASTE, ENERGY, AND ENVIRONMENTAL JUSTICE RESEARCH

Feb 9   *Mapping social environments.* **Introduction to web-based mapping applications with Amanda Henley, Geography and GIS librarian. <mark>Meet 3:35pm @ the Research Hub @ Davis Library, 2nd Floor.</mark>**

- Chris Perkins, "**Mapping and Graphicacy**" [KMiG, 350-373]

- A.M. Joyner and Allan N. Parnell, "**Maximizing the power of Geographic Information Systems in racial justice**" *Clearinghouse Review: Journal of Poverty Law and Policy* 47(2013): 185-193.

- David J. Unger, "**US Energy in five maps**" *Christian Science Monitor* May 30, 2013 **http://www.csmonitor.com/Environment/2013/0530/US-energy-in-five-maps-infographics/**

    o See also: "**The United States of Energy**" http://usofenergy.com/

Feb 16   *Mapping injustice; rethinking environmental values*

Visiting speaker: Alan Parnell, Cedar Grove Institute for Sustainable Communities

- Marsh, B., Parnell, A.M., and A.M. Joyner, "**Institutionalization of racial inequality in local political geographies**" *Urban Geography* 31(2010): 691-709.
    o See also: http://www.cedargroveinst.org/

- Ken Geiser and Gerry Waneck, "**PCBs and Warren County**" in R. Bullard (ed) Unequal Protection (San Francisco: Sierra Club Books, 1994), pp 43-52.

- Working Landscapes. Agricultural atlas of Warren County. http://workinglandscapesnc.org/agricultural-atlas-of-warren-county/

- Susan Hardy, "**The price of pork**" *Endeavors* (research and creative activity, UNC-Chapel Hill) , January 4, 2012. http://endeavors.unc.edu/the_price_of_pork

Feb 23   *Archive; doing historical research*

<mark>Visiting the Wilson Library/NC Collections</mark>

- Miles Ogborn, "**Finding Historical Sources**" [KMiG, pp 89-102]

- Mike Featherstone, "Archive" *New Encyclopedia Project*, 591-596

- Jennifer Wells (story) and Spencer Wynn (photos), "**The ghosts of Bhopal**" *The Toronto Star* November 21, 2014. **http://www.thestar.com/news/world/2014/11/21/the_ghosts_of_bhopal.html**

- <mark>"Mapping #1" due</mark>

Mar 2   Creative mapping and counter-cartography workshop with Tim Stallman (http://www.tim-maps.com/)

- Jeremy W. Crampton and John Krygier, "**An introduction to critical cartography**" *ACME* 4(2006): 11-33

- _____ "**Geography and the Interpretation of Visual Imagery**" [KMiG, pp 131-140]

- http://www.countercartographies.org

- http://publiclab.org/

    - http://mapknitter.org/

Mar 9   **SPRING BREAK NO CLASS**

    Part III: MAPPING GEOGRAPHIES OF ENERGY AND WASTE

Mar 16   *Energy landscapes*

- Karl S. Zimmerer, "**New geographies of energy**: Introduction to the special issue" *Annals of the Association of American Geographers* 101(2011): 705-711.

- Martin J. Pasqualetti, "**Social barriers to renewable energy landscapes**" *The Geographical Review* 101(2011): 201-223.

- Timothy Mitchell, "**Carbon democracy**" *Economy and Society* 38(2009): 399-432.

- Shaila Dewan, "**Hundreds of coal ash dumps lack significant regulation**" *The New York Times* 1/07/2009.

    - Additional coal ash sources:
        - http://appvoices.org/coalash/dan-river/
        - T. Gabriel, "Utility cited for violating pollution law in North Carolina" *New York Times* March 3, 2014.
        - S. Sturgis, "Institute Index: Duke Energy Coal ash spill lates in ongoing regulatory disaster" *Facing South*.
        - W. Dizard, "North Carolina coal ash spill continues; Duke Energy promises cleanup" *Al Jazeera English*, February 7, 2014.

- <mark>"Mapping #2" due</mark>

Mar 23   *The Superfund and geographies of waste; Energy futures*

Visiting speaker: Dana Brown Haine, Research Translation and Community Engagement, UNC Superfund Research Program (http://sph.unc.edu/superfund-pages/srp/)

http://www.epa.gov/superfund/ [Selections]

On hydraulic fracturing or "fracking":

http://www.usnews.com/news/articles/2014/12/17/new-york-citing-health-risks-to-ban-fracking

http://www.usnews.com/news/articles/2014/12/19/behind-new-yorks-fracking-ban

http://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf

http://www.southernstudies.org/2015/01/could-separation-of-powers-lawsuit-sink-nc-frackin.html

- Institute for Southern Studies, "**The environmental health costs of a petrochemical future for North Carolina**"

- Couze Venn, "**Rubbish, the Remnant, Etcetera**" *Theory, Culture & Society* 23 (2006): 44-46.

Mar 30   *Projects: Research practicum*

- M. Healey & RL Healey, "How to conduct a literature search" [KMiG, 16-35]

- Meghan Cope, "Coding Transcripts and Diaries" [KMiG, 440-452]

- Media: News21.com. 2011. Powering a Nation: Coal a love story. The University of North Carolina at Chapel Hill. http://www.poweringanation.org/coal/

April 6:   *Going nuclear?*

- Charles Perrow, "**Nuclear denial: From Hiroshima to Fukushima**" *Bulletin of the Atomic Scientists* 69 (2013): 56-67.

- "Rethinking Nuclear" (2012 GEOG 650 Digital Atlas) https://rethinkingnuclear.web.unc.edu/

- Gerry Canavan, "After Fukushima, a tour of the Shearon Harris nuclear power facility" *Independent Weekly* 6/01/2011.

- Dan Frosch, "Amid toxic waste, a Navajo village could lose its land" *New York Times* Feb 19, 2014.

- M. Bradford, "Writing essays, reports, and dissertations" [KMiG, 497-512]

Apr 13   *New models of science and public engagement*

- Living Knowledge, The International Science Shop Network, http://www.livingknowledge.org/

- Syracuse Community Geography & Syracuse Hunger Project http://communitygeography.org/

- Kirsch, S. 2007. "Risk Society" in P. Robbins (ed), *Encyclopedia of Environment and Society*, pp 1524-1526. Thousand Oaks, CA: Sage Publications.

- Robbins P and Moore SA (2013) Ecological anxiety disorder: diagnosing the politics of the Anthropocene. *Cultural Geographies* 20: 3-19.

April 20   *Technology & Democracy Workshop 2015 Teknologirådet*: NC Energy futures*

- **[*Technology Councils (Danish)]**

Final Exam date: GROUP RESEARCH PRESENTATIONS*

- Final reflection papers due

What is the APPLES Service-Learning program?
APPLES is a service-learning program founded in 1990 by students who believed learning extends beyond the walls of the classroom. More than 2,400 students each year are involved with APPLES programs, which are a part of the Carolina Center for Public Service's array of student programs.
What is service-learning?
Service-learning is a type of experiential education that involves the integration of academic coursework with meaningful and relevant community service.
Students are expected to commit to:
Three to five hours a week of service for 10 weeks, for a minimum of 30 hours,

In GEOG 650, we attempt to contribute to the mission statements of community partners through our digital atlas research projects. Community partners in Spring 2015 include: Cedar Grove Institute for Sustainable Communities; UNC Superfund Research – Research Translation Core*; Working Landscapes*