

**Social Scientists and Cyberinfrastructure: Insights from a
Document Perspective
Steve Sawyer, Elizabeth Kaziunas, Carsten Østerlund**

This paper reports on a pilot study of social scientist's distributed collaborative practices. It is intended to gain insight into the needs of these scholars relative to cyberinfrastructure (CI). It was observed that much of the current uses of CI are oriented towards supporting natural and physical scientists. CI provides a means for more scientists to work together across time and space. Cyberinfrastructure encompasses a range of digital resources such as computational capacity; access to data sources; tools to support access, use and analysis of this data; and the needed networking infrastructure to support access and use. Contemporary use of social scientists' uses of CI often echo the excitement of these ICT-enabled platforms as a new frontier for social science research.

For this paper social science are those intellectual communities focused on the human condition. This includes sociology, economics, anthropology, political science, linguistics, and geography. One characteristic which defines the social sciences is that knowledge is built from facts or evidence in support of theories and not typically represented as laws. Little has been written on the work practices of social scientists; distributed or otherwise. A "micro" study of distributed collaboration was done among four social scientists. These scholars collaborated across three time zones and never meet face-to-face during the study. Software was used to track uses of desktop and online repositories; gathered participant-generated images of physical documents and desktops; collected documents; conducted interview and behavioral inquiries; and did participation observation.

In regards to technology there was a focus on ICT use, noting use is common and there are shared patterns. However, ICT uses are distinctly individualized. The most common ICT are commodified (e.g. laptops and computers, word processing, statistical and network visualization software). Despite the many ICT-based tools available, and as expected, the scientists in the pilot study used email as the primary way of sharing information, and communicating.

Social scientists more often work alone, so the four individuals studied in the pilot study worked and stored project documents in personalized ways. What became clear during the pilot study was focusing on document and documenting practices made it easier to discern social scientists' distributed and collaborative work practices. Moreover, focusing on document practices revealed ICT uses, communication patterns, and the scholars approaches to pursuing shared scientific efforts.

Initial findings suggest that a document centric approach is useful for studying distributed collaborative work. The findings also suggest CI needs for social scientists may be different from what is currently provided or envisioned.

