

APPENDIX I: THE CHARGE TO THE COMMISSION*

American Council of Learned Societies Commission on Cyberinfrastructure for the Humanities

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1 Appendix I: The Charge to the Commission

As scholars in the humanities and social sciences use digital tools and technologies with increasing sophistication and innovation, they are transforming their practices of collaboration and communication. New forms of scholarship, criticism, and creativity proliferate in arts and letters and in the social sciences, resulting in significant new works accessible and meaningful only in digital form. Many technology-driven projects in these areas have become enormously complex and, at the same time, indispensable for teaching and research.

For their part, scientists and engineers no longer see digital technologies merely as tools enhancing established research methodologies but as forces creating environments that enable the creation of new knowledge. The recent National Science Foundation report “Revolutionizing Science and Engineering through Cyberinfrastructure” argues for large-scale investments across all disciplines to develop a shared technology infrastructure that will support ever-greater capacities. Those capacities would include the development and deployment of new tools; the rapid adoption of best practices; interoperability; the ability to invoke services over the network; secure sharing of facilities; long-term storage of, and access to, important data; and ready availability of expertise and assistance.

The needs of humanists and scientists converge in this emerging cyberinfrastructure. As the importance of technology-enabled innovation grows across all fields, scholars are increasingly dependent on sophisticated systems for the creation, curation, and preservation of information. They are also dependent on a policy, economic, and legal environment that encourages appropriate and unimpeded access to both digital information and digital tools. It is crucial for the humanities and the social sciences to join scientists and engineers in defining and building this infrastructure so that it meets the needs and incorporates the contributions of humanists and social scientists.

ACLS is sponsoring a national commission to investigate and report on these issues. The Commission will operate throughout 2004 and is charged to

- describe and analyze the current state of humanities and social science cyberinfrastructure;
- articulate the requirements and potential contributions of the humanities and the social sciences in developing a cyberinfrastructure for information, teaching, and research;
- recommend areas of emphasis and coordination for the various agencies and institutions, public and private, that contribute to the development of this cyberinfrastructure.

Among the questions to be explored in pursuing these three goals are:

Describe and analyze the current state of humanities and social science cyberinfrastructure.

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1. What can be generalized from the already significant digital projects in the humanities and social sciences? Which humanities and social science communities are most active, and why? Of those that are not, which might soon, easily and/or profitably, engage more deeply with digital technology? How have scholars developed computing applications to accomplish their scholarly and expressive goals? Where have they failed to do so, and what can be learned from those failures?
2. What new intellectual strategies, critical methods, and creative practices are emerging in response to technical applications in the humanities? To what extent are disciplines in the humanities transforming themselves through the use of computing and networking technologies? What are the implications of those transformations?
3. What organizations and structures have empowered or impeded the digital humanities? What are examples of successful and durable collaboration between technologists and humanities scholars? Where and how are people being trained to support and engage in such collaborations? What has been the role of libraries, archives, and publishers in these projects?

Articulate the requirements and the potential contributions of the humanities and the social sciences in developing a national cyberinfrastructure for information, teaching, and research.

1. What are the "grand challenge" problems for the humanities and social sciences in the coming decade? Are they tractable to computation? Do they require cyberinfrastructure in some other way?
2. What technological developments can we predict that will have special impact in the humanities and social sciences in the near future?
3. Which are the most important functionalities necessary for new research and development in cyberinfrastructure generally? What kinds of humanities or social science problems are theoretically difficult or expressively complex, or challenge our ability to formulate a computable problem in some other way? What kinds of humanities or social science problems are computationally intensive, require especially high bandwidth, or present resource challenges in other ways?
4. What are the barriers that confront humanities and social science users who wish to take advantage of state-of-the-art computational, storage, networking, and visualization resources in their research? What can be done to remove these barriers?
5. What impact will the availability of high-performance infrastructure have on enabling cross-disciplinary research? What will high-performance infrastructure mean for the broader social impact of humanities and social sciences?
6. What can be done to improve education and outreach activities in the computer-science and engineering community to broaden access to high-end computing? How can computing expertise in the humanities and social sciences themselves be increased?

Recommend areas of emphasis and coordination for the various agencies and institutions, public and private, that contribute to the development of humanities cyberinfrastructure.

1. What investments in cyberinfrastructure are likely to have the greatest impact on scholarship in the humanities and social sciences?
2. What research infrastructure should be coupled with cyberinfrastructure?
3. How can private and public funding agencies coordinate their efforts and cooperate with universities, research libraries, disciplinary organizations, and others to maximize the benefits of cyberinfrastructure for the humanities and social sciences?
4. How should new investments in infrastructure and technologies be administered so as to include the humanities?