Overview of the ARL/DLF E-Science Institute, April 2011

The E-Science Institute is designed to help research libraries develop a strategic agenda for e-research support, with a particular focus on the sciences. The Institute consists of a series of interactive modules that take small teams of individuals from research libraries through a six-month process to strengthen and advance their e-research support strategy. The initial cohort begins in mid-2011 with a series of modules for teams to complete at their institution, and culminates in an in-person workshop. While the Institute is not intended to provide staff training in specific aspects of e-research support, assignments to be completed at the local institution will help staff establish a basic understanding of e-research background needs and issues. Library directors’ involvement in this process will be critical in helping teams understand their local institutional context and reaching out to key stakeholders as described below.

In the context of the Institute, e-science covers the breadth of e-research activities applied across all disciplines, including interdisciplinary research, but with a particular focus on the sciences. Its scope is not limited to the types of scientific research requiring very large-scale computing (i.e., computational science or high-performance computing) but includes all aspects and types of computer-supported research including data production and curation, social interaction (e.g., virtual research environments), online publishing and scholarly communication, and the use of physical space for computer-based group activities. The E-Science Institute assumes the continuation of the traditional library mission to collect, preserve, and disseminate a documented record of research, and to provide environments suitable for study and learning. It will help participants map their current services and resources into e-research support activities, but will also help them envision new services and new resources that support science within the scope of the research library’s mission, by building new partnerships and collaborations within and across institutions. Of particular importance for research libraries are the activities and expertise related to research data curation, starting with traditional expertise (e.g., collection development, description, and preservation) and moving through the data life cycle into more e-research-specific activities (e.g., structuring data, locating external research data collections). The policy and organizational changes implied by such activities and the requisite expertise are included in the scope of the Institute.

The Institute consists of four modules, beginning with a “baseline” module to establish common understanding of the issues and concluding with the in-person workshop event. The additional modules cover “context-setting,” e.g., identifying existing assumptions, activities, and priorities of the institution around e-science, and developing the “building blocks” of the library’s strategic agenda for e-research support. Modules include assignments for the teams to complete on campus, such as readings, structured interviews with key stakeholders both inside and outside the library, scenario planning, etc. Needs for staff training and skill development in specific activities will be identified during the course of the Institute, and the Institute faculty will work with ARL and DLF to meet those needs in a separate process. Teams will complete the E-Science Institute with a strategic agenda that is customized to their institution and will continue to inform their strategic planning activities for e-research support in the years that follow.