

JCDL 2012 Tutorial Proposal by E. Fox

Note: This could be a single full-day tutorial, or two half-day tutorials, or either of the two parts could be given, as fits the conference plans.

A) Title: Introduction to Digital Libraries (possibly in morning)

- **Abstract:** This tutorial is a thorough and deep introduction to the DL field, providing a firm foundation: covering key concepts and terminology, as well as services, systems, technologies, methods, standards, projects, issues, and practices. It introduces and builds upon a firm theoretical foundation (starting with the '5S' set of intuitive aspects: Streams, Structures, Spaces, Scenarios, Societies), giving careful definitions and explanations of all the key parts of a 'minimal digital library', and expanding from that basis to cover key DL issues. Illustrations will come from a well-chosen set of case studies. Attendees will receive a copy of the latest version (over 500 pages) of the new DL book the presenter is preparing for publication. Complementing the coverage of '5S' will be an overview of key aspects of the DELOS Reference Model and the DL.org activities based in Europe.
- **Outline:** The book outline is as follows; extra DELOS/DL.org coverage will be added as seems appropriate for the audience.
 - Introduction
 - Exploration
 - Evaluation
 - Complex Objects
 - Integration
 - Subdocuments
 - Ontologies
 - Classification
 - Content-based Image Retrieval
 - Social Networks
 - Education
 - Bioinformatics, Scientific, and Simulation DLs
 - Geospatial Information
 - Security
 - Text Extraction
- **Duration:** ½ day (esp. if part B is given, else could be a full-day if desired)
- **Expected number of participants:** 5-40
- **Target audience: introductory or intermediate** (This tutorial may be of interest to those already involved in digital libraries, especially if they wish to organize/solidify their understanding and broaden their perspective.)
- **Learning objectives:** Those attending will be able to:

- Explain the 5S framework; compare with DELOS/DL.org works.
- Describe core DL content and services, both informally and formally.
- Describe common DL application areas, from both a user and a system perspective.
- Describe common technologies that extend the capabilities of DLs.

B) Title: Guidelines and Resources for Teaching DLs (possibly in afternoon)

- **Abstract:** Educational resources from an US National Science Foundation funded grant to develop DL curriculum (see <http://curric.dlib.vt.edu/>) will be presented, including descriptions (aimed at teachers and learners) of the more than 30 major modules and sub-modules that cover the core DL topics and related topics (e.g., those used to teach in both undergraduate and graduate courses at Virginia Tech). More than 10 of these modules are available on instances in the IBM Cloud, so related open source software and data can be utilized without installation and tailoring. Most of the modules have been reviewed, revised, field tested, and used at several locations. The discussion will be tailored to the interests of the attendees.
- **Outline:**
 - Overview of the DL curriculum project and its methods
 - Pedagogical and curricular recommendations regarding both instructors and students
 - Introduction to each of the 10 curricular areas
 - Discussion of particular modules of interest to attendees
 - Discussion of how to meet attendee teaching/learning needs
- **Duration:** ½ day
- **Expected number of participants:** 5-20
- **Target audience:** intermediate or advanced (those interested in teaching or training regarding DLs, or in self-study using the resources provided)
- **Learning objectives:** Those attending will be able to:
 - Identify modules of interest for their own study about DLs.
 - Identify suitable modules for use in courses on DLs, or on related topics where some DL content can be added or integrated.
 - Learn from any of the modules, and assess their understanding.
 - Teach from any of the modules, and assess student understanding.
 - Add to the collection of modules, for their special area of expertise.

C) Brief biography for presenter, with contact information

Edward Fox holds a Ph.D. and M.S. in Computer Science from Cornell, and a B.S. from M.I.T. Since 1983 he has been at Virginia Tech, where he serves as Professor. He directs VT's Digital Library Research Laboratory and the Networked Digital Library of Theses and Dissertations. He is a member of Board of CRA (the Computer Research Association). He was chair of the IEEE Technical Committee on Digital Libraries, is chair of the steering committees for JCDL, and is on the international advisory committee for ICADL.

He has been (co-)Principal Investigator on over 111 research grants/contracts. He taught 78 tutorials and has given 66 keynote/distinguished/international invited talks. He has (co-)authored 14 books, 98 journal/magazine articles, 48 books chapters, 172 refereed conference papers, 54 posters, and over 150 other publications, plus over 300 additional talks.

Fox was Co-Editor-in-Chief for ACM JERIC, and is on the boards of IJDL, IP&M, JEMH, JIIS, JOCCH, J. UCS, Multimedia Tools & Applications, TOIJ, TOIS, etc.

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