HUBzero: A Web-based Platform for Research, Education, and Scientific Collaboration

SYNOPSIS: Imagine an app store for scientists, engineers, and educators filled with simulation and modeling tools — not simple Java applets, but real research codes that tackle difficult problems and may require substantial computing power drawn from the Cloud. Imagine a new way of publishing scientific work that involves not just articles about those tools, but the tools themselves, online and accessible to the world through an ordinary Web browser. Imagine an array of databases at your fingertips, with information that is easy to search, sort, and filter.

That dream has become a reality for a wide variety of topics, including nanotechnology, healthcare, pharmaceuticals, earthquake engineering, volcanic activity, and environmental modeling. Each of these fields have used an open source software package called the HUBzero Platform for Scientific Collaboration to create an online collaboratory — a "hub" for their community. Each hub contains an electronic library of simulation tools, along with data sets, seminars, tutorials, and teaching materials contributed by the community. The past year has seen 40 such hubs in operation, serving more than 800,000 visitors from 172 countries. This seminar will demonstrate examples of hubs and how they're being used to support both education and research. Session details ...

BIO: Michael McLennan is a senior research scientist at Purdue University's Rosen Center for Advanced Computing, where he is director of the HUBzero Platform for Scientific Collaboration.

McLennan received a Ph.D. from Purdue University in 1990, supported as an SRC Graduate Fellow, for his dissertation on dissipative quantum mechanical electron transport in semiconductor heterostructure devices. He spent 14 years working in industry at Bell Labs and Cadence Design Systems, developing software for computer-aided design of integrated circuits. He created "[incr Tcl]," an object-oriented extension of the Tcl scripting language, which has been used by thousands of developers worldwide on projects ranging from the TiVo digital video recorder to the Mars Pathfinder.

SUMMARY:

Topic: HUBzero: A Web-based Platform for Research, Education, and Scientific Collaboration

Speaker: Michael McLennan, Ph.D.

Date: Wednesday, November 28, 2012

Time: 11 AM – 12 PM

Presentation: A screencast of the presentation will be available for viewing after the event here on our Speaker Series Videos page and on the NCI Events YouTube Channel

About the NCI CBIIT Speaker Series:
The National Cancer Institute (NCI) Center for Biomedical Informatics and Information Technology (CBIIT) Speaker Series is a bi-weekly knowledge-sharing forum featuring both internal and external speakers on topics of interest to the biomedical informatics and research communities. For additional information, including past speaker series presentations, visit the CBIIT Speaker Series page.

Questions? Please email us at NCICBIITcomms@mail.nih.gov.

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