Ann L. McCranie Indiana University Bloomington Department of Sociology Abstract for Presentation at Sunbelt XXIX

Network Workbench: A Toolkit for Network Scientists

The Network Workbench NWB Tool (http://nwb.slis.indiana.edu) is a network science toolkit for toolkit for physics, biomedical, social and behavioral science research. It is a standalone desktop application and can install and run on Windows, Linux x86 and Mac OSX operating systems. Supported in part by the National Science Foundation (NSF IIS-0513650), the tool provides easy access to more than 70 algorithms and diverse sample datasets for the study of networks. The loading, processing, and saving of four basic file formats (GraphML, Pajek .net, XGMML and NWB) and an automatic conversion service among those formats are supported. Additional algorithms and data formats can be integrated into the NWB Tool in several programming languages using wizard driven templates thanks to the open source, software framework Cyberinfrastructure Shell (CIShell, http://cishell.org).

The Network Workbench Community Wiki (https://nwb.slis.indiana.edu/community) is a place for users of the NWB tool, CIShell, and other CIShell-based programs to request, obtain, contribute, and share algorithms and datasets. The developer/user community can work together and create additional tools/services to meet both their own needs and the needs of their scientific communities at large. All algorithms and datasets that are available via the NWB tool have been well documented in the NWB Community Wiki.