

BIOGRAPHICAL SKETCH – <John W. Anderson>

Virtual Technology & Design, University of Idaho, 875 Perimeter Drive, Moscow, ID 83844

(A) Professional Preparation:

Pennsylvania State University	Roma, Italia	Cartography	Non-Degree	1996
University of Idaho	Moscow, ID	Architecture	M. Arch	1997
University of Idaho	Moscow, ID	Virtual Architecture	M.S.	2006

(B) Appointments: *University of Idaho*

2020-current: Professor, Virtual Technology and Design
2020-current: Internal Advisory Member, Institute for Modeling Collaboration and Innovation
2019-current: Lead-Visualization, Center for Resilient Communities
2018-current: Lead-CAA, USA-Sustainable Development Solutions Network
2017-2020 Member, College of Art & Architecture (CAA) Academic Core Team
2017-2020: Program Chair, Virtual Technology & Design
2014-2018: Member, Executive Leadership Team, Idaho EPSCoR
2014-2018: Special Assistant to the VPR/ORED, Idaho NSF-EPSCoR
2014-2020: Associate Professor, Virtual Technology and Design
2008-2012: Co-Director, Imaging in Science and Engineering Education
2008-current: Director, Virtual Technology Laboratory
2008-2014: Assistant Professor, Virtual Technology and Design
2007-2008: Faculty, Virtual Technology & Design
2001-2007: Instructor, Virtual Architecture

(C) Products

1. Gregory A, Chen C, Wu R, Miller S, Ahmad S, Anderson JW, Barrett H, Benedict K, Cadol D, Dascalu SM, Delparte D, Fenstermaker L, Godsey S, Harris FC Jr, McNamara JP, Tyler SW, Savickas J, Sheneman L, Stone M and Turner MA (2020) Efficient Model-Data Integration for Flexible Modeling, Parameter Analysis and Visualization, and Data Management. *Front. Water* 2:2. doi: 10.3389/frwa.2020.00002
2. Smith A, Kolden C, Paveglio T, Cochrane M, Bowman D, Moritz M, Kliskey A, Alessa L, Hudak A, Hoffman C, Lutz J, Queen L, Scott G, Higuera P, Boschetti L, Flannigan M, Yedinak K, Watts A, Strand E, Van Wagtendonk, Anderson JW, Stocks B, Abatzoglou J, (2016) The Science of Firescapes: Achieving Fire- Resilient Communities, *BioScience*, V66(2):130-146
3. Lew R, Lau N, Boring R, Anderson JW, (2015) The Role of HCI in Cross-Sector Research on Grand Challenges. *HCI* (21) 2016: 519-530
4. Carthen C, Rushton T, Johnson C, Hesson A, Nielson D, Worrell B, Anderson JW, Lew R, Wood N, Ziegler M, Delparte D, Johansen WJ, Dascalu S, Harris F, (2015) Design of a Virtual Watershed Client for the WC-WAVE Project. *Proceedings of the International Conference on Collaboration Technologies and Systems (CTS-2015)*, pp 90-96
5. Smith A, Kolden C, Tinkham W, Talhelm A, Marshall J, Hudak A, Boschetti L, Flkowski M, Greenberg J, Anderson JW, Kliskey A, Alessa L, Keefe R, Gosz J, (2014) Remote sensing the vulnerability of vegetation in natural terrestrial ecosystems, *Remote Sensing of Environment* J.RSE2014.03.038

(D) Synergistic Activities:

1. Co-Investigator and University of Idaho Lead for Idaho NSF-EPSCOR RII Track 1 (IIA-1301792): Managing Idaho's Landscapes for Ecosystem Services *MILES*. Mission: To advance understanding of changes in ecosystem services at the interface between urban and rural environments, relate those changes to societal and climate drivers, and provide science-based visualization/virtualization tools and training to inform policy decisions about the sustainable management of these ecosystem services.
2. Primary-Investigator for a visualization Sub-Award supported by Alaska NSF- EPSCoR (OIA-1208927)- Alaska Adapting to Changing Environments *ACEs*, south- central test case. Mission: To draw linkages among changing climate, salmon populations, and human communities in the Kenai River watershed. (*Visualization-SalmonSim*).
3. Visualization Lead (Idaho), and CI-Vis Component Team member for Collaborative Research: Western Consortium for Watershed Analysis, Visualization, and Exploration WC-WAVE (IIA-1329513). *Mission: To create better models to understand the processes that govern a large proportion of water and ecosystem services to communities. These systems are affected by climate change, which impacts the water storage, flow moderation and water quality improvement. Interactions among precipitation, vegetation growth, fire regime, soil moisture, runoff and other landscape properties create systems in which even subtle changes in climate may lead to significant environmental and economic impacts.*
4. Senior Personnel for NSF-Hazard-SEES (#1520873). Mission: To improve our understanding of how compounding disturbance factors, such as drought and insects contribute to wildfire growth and severity; how wildfires translate to post-fire hazards such as floods, landslides and mudflows; and what social factors contribute to community vulnerability to wildfire-induced hazards. Develop visualizations that support regional vulnerability maps for early warning systems to develop more holistic mitigation and adaptation strategies.
5. Primary-Investigator for Micron STEM Education Innovation (2014). Mission: To develop an online virtual learning environment to support STEM education targeting Middle School females and minorities (Virtual World Village). In the Virtual World Village, students choose a profession (Scientist, Technician, Engineer, Mathematician), and enter a multiuser environment which features STEM learning concepts that challenge students with problems they can solve with STEM related skills that reinforce school curriculum. The Virtual World Village concept was designed to appeal specifically to girls and minorities who are underrepresented in STEM fields. Studies suggest that these groups may be more attracted to STEM fields by focusing on projects focusing on sustainability and social justice