Information Literacy Integration & Assessment in the Geography Undergraduate Program

Summary of Original Proposal

Brian Winterman, Nicholas Wyant (IUB Libraries), Rebecca Lave, Cody Kirkpatrick, James King (Geography)

Information literacy (IL) is essential in order for students to use information effectively, to communicate ideas and perspectives in writing or otherwise, and to think like a professional in a given discipline. When integrated in a sequence with an undergraduate program, IL facilitates a learning progression that ultimately leads to a person’s ability to demonstrate evidence-based innovation, a highly desired outcome of liberal arts education. Because IL addresses a broad range of learning goals within a given program, it is ideal as a framework for assessment of learning at the course and program levels.

Previous work at IU, particularly with the Department of Biology, has shown that integration and assessment of IL at the course and program levels can be effective in improving teaching and learning. Although IL is trans-disciplinary, there are challenges to adapting it into other programs. For instance, the Biology program has a sequential path of prerequisites through much of the curriculum, which easily facilitates integration of IL in a progression. Many programs, however, are not sequential or have a limited sequence of required classes, so it will be necessary to test the adaptability of this model with such programs. In addition, courses with very high enrollment and little support from teaching assistants still pose a number of challenges for IL integration (as they do for many other teaching and learning approaches).

Our work will seek to develop an approach to information literacy that can be adapted to a variety of programs and curricula. The undergraduate Geography program and its instructors present a promising scenario for solving the aforementioned problems and further developing this trans-disciplinary model.
Information Literacy Integration & Assessment in the Geography Undergraduate Program

Brian Winterman (P.I.)
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Associate Professor, Department of Geography

Nicholas Wyant (Co-P.I.)
Head of Social Sciences, IUB Libraries

Cody Kirkpatrick (Co-P.I.)
Lecturer, Department of Geography

James King (Co-P.I.)
Visiting Assistant Professor, Department of Geography

Funding level requested: **Phase III**
Duration of funding period: **2 years**

Contact: Brian Winterman (bwinterm@indiana.edu)
Abstract

Information literacy (IL) is essential in order for students to use information effectively, to communicate ideas and perspectives in writing or otherwise, and to think like a professional in a given discipline. When integrated in a sequence with an undergraduate program, IL facilitates a learning progression that ultimately leads to a person’s ability to demonstrate evidence-based innovation, a highly desired outcome of liberal arts education, et al. Because IL addresses a broad range of learning goals within a given program, it is ideal as a framework for assessment of learning at the course and program levels. Previous work at IU, particularly with the Department of Biology, has shown that integration and assessment of IL at the course and program levels can be effective in improving teaching and learning. Because of the trans-disciplinary nature of IL, the practices and materials associated with integration and assessment in the Biology program, as well as the process involved, could presumably be adapted and adopted by other disciplines, though this has not been formally tested. Also, the Biology program is sequential, i.e., there is a prescribed path of prerequisites through much of the curriculum, which easily facilitates integration of IL in a progression. Many programs, however, are not sequential or have a limited sequence of required classes, so it will be necessary to test the adaptability of this model with such programs. Finally, courses with very high enrollment and little support from teaching assistants still pose a number of challenges for IL integration (as they do for many other teaching and learning approaches), so a deconstructed and scalable approach to reaching the associated IL outcomes of that course need to be developed. The undergraduate Geography program and its instructors present a promising scenario for solving the aforementioned problems and further developing this trans-disciplinary model.

Project Description

1. Purpose of the investigation along with specific research objectives

The purpose of this investigation is to transfer and implement a model of information literacy integration in order to refine the model, address disciplinary challenges, and develop new practices for teaching IL skills in large classes. Specific objectives include:

A. **Define IL in Geography.** This part of the process is essential for people to recognize what information skills are needed to be successful in the field and how to teach them throughout the program. The multidisciplinary nature of geography will make this step especially valuable in the development of the model.

B. **Adapt the Model for Sequence.** Like other programs on campus, Geography lacks a required 4-year sequence. This presents an opportunity to answer the question of how to scaffold and address all learning outcomes in more limited and discreet lengths of time.

C. **Adapt Exercises for Large Class Sizes.** Teaching students information skills is often done most efficiently in the context of writing papers. However, in large classes with minimal or no teaching assistance, assigning and giving feedback on writing is not always feasible. We will deconstruct existing model exercises to address the same outcomes in components rather than single products, incorporating classroom technology as necessary.
D. **Develop Framework for Assessment.** Performances on course level assignments can be measured and compiled to offer a program level view of student achievement. We will develop assessments for all assignments being integrated in order to accomplish this, and the resulting data will also satisfy much of what the College requires of program assessment.

E. **Further Transfer of the Model.** It is intended that findings from this study will facilitate the expansion of adoption of these approaches and materials across campus and beyond.

2. **Previous Research Results**

Previous research in this area at IUB has been funded and supported by SOTL as well as the Council of Graduate Schools (with funds from Alfred P. Sloan and Teagle Foundations) and the Indiana University Librarians Association. Phase I work focused primarily on course level integration, while Phase II work allowed us to begin developing and testing the program level model of integration and assessment. The results of the various studies have all been considered and drawn from to develop this current project in a way that will make it as effective as possible. Some of the most relevant and important results are summarized here:

- (Phase I) Integrating information literacy principles into the research and writing process empowers students by teaching them expert-level skills in their information use and fosters skills related to evidence-based innovation. It also by nature makes writing a deliberate and process-based endeavor. Rubric assessment of writing samples has shown that this approach results in better organization of thoughts and information, and better writing overall.
- (Phase I) Research shows that collaboration is crucial in successfully producing information literate students. Information literacy principles become most meaningful in the context of a discipline, so librarians and instructors in disciplines must work together for best results.
- (Phase I & II) Assessment of student learning is most meaningful when it is authentic. Rubric assessment has shown to be a viable and effective option for authentically assessing information literacy-based student work.
- (Phase II) Approaches and materials associated with integration and assessment of IL in the Biology program have been developed and are available to instructors for adoption and implementation. These materials have also been adapted by instructors in other disciplines, and this trans-disciplinary adoption is expected to continue.
- (Phase II) Having examples of exercises and assessments readily available is highly desired among instructors, so a database/online community for sharing these materials was created. It is called ILIAD (Information Literacy Instruction and Assessment Database) and is publicly accessible ([jub.libguides.com/iliad](http://jub.libguides.com/iliad)).
- (Phase II) Because of the national interest in the process and materials of these studies, Investigator Winterman has been invited to speak and give workshops to librarians and faculty at other institutions (Claremont Colleges, CUNY, Temple) and present at a number of local and national conferences. Also, local workshops on IL-based
assignments have been well-attended and have proved an effective means of sharing practices and materials.

Not counting two articles that will soon be submitted for peer review, the following publications have resulted from this work:


Donovan, C., Slough, R., & Winterman, B.(2011). Information Literacy for Multiple Disciplines: Toward a Campus-Wide Integration Model at Indiana University, Bloomington. Communications in Information Literacy, 5, 1: 38-54.


3. **Significance, Impact, and Assessment**

A. Student Learning - The integration of information literacy as well as the feedback-focused assessment tools will result in overall improvement in student learning. When contextualized within disciplinary content, IL can strengthen student performance of general information tasks and those specific to the discipline.

B. Teaching Practices – Integrating IL and related assessment tools requires instructors to design and execute assignments very deliberately and in line with principles of design such as scaffolding, authenticity, and sequencing.

C. Transferability - The universal nature of IL as well as the common goal of evidence-based innovation in many disciplines means that practices and materials at both the course and program levels should be adaptable and applicable to teaching in learning in many other disciplines. Local workshops with instructors and librarians, as well as dissemination beyond the campus, will facilitate this transfer.

D. Assessment - One of the primary components of this project is to continue the development of and testing of a variety of teaching and learning assessment tools, particularly rubrics that measure performance of students at both the course and program level.
4. Research Methodology

We will evaluate the project in a number of ways focusing primarily on course and program level rubric assessment data, the implementation of the program-wide plan, and the collaboration and communication between participants and instructor. This analysis will include the following assessments:

- Course-level rubrics used in targeted courses will provide data on student performance in information literacy exercises. These data will be compiled to identify strengths and weaknesses in attaining overall program goals.
- A program-level report summarizing student learning outcomes will serve as windows into opportunities for revising and improving exercises and assessment tools at the course level.

5. Measuring Success

The most obvious measures of success will be those related to successful implementation and the measurement of student performance in information related tasks. These will include (among other things) the feasibility and overall execution of the exercises developed as well as the related student achievement levels, which will be assessed primarily as described above. Also, a key indicator of success will be the adoption of these practices and materials by instructors in the department that will demonstrate thoughtful and sustained implementation and reflection beyond the timeframe of the study.

6. Dissemination

The investigators will report progress and results as appropriate via publishing and presenting in both local and national publications/conferences. Also, investigators will publish and present the results of their student learning assessment locally and nationally. Following is a list of potential audiences for dissemination:

- Geography faculty and instructors
- SOTL community
- Library faculty and staff
- College of Arts & Sciences
- State and national conferences in science education, library science, general teaching and learning, and specific disciplines

7. Reflective Teaching

This project by nature encourages and offers a viable structure for reflective teaching to instructors. By having them examine courses in the context of the entire program, and assessing student learning at both the class and program level, they will see how learning in one class affects another, and they will likely never view a single class or the teaching practices employed therein as a standalone experience for the student or instructor again.
Budget Narrative

Dissemination via national workshops and conferences will be essential, and so investigators and participants will need ample funds for related travel. Also, local dissemination via instructor workshops and events, which will be necessary to achieve further transfer and adoption of the model on campus, will require hospitality funds for lunches and refreshments that promote community building at events.

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<td>Hospitality for Workshops</td>
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Research Plan and Timeline

We will begin by targeting classes that are required or likely to be taken by majors. Alternatively, courses that serve as ideal testing scenarios for model exercises will be selected. Assessment of implementation and student learning outcomes will occur along with course integration efforts beginning in spring of 2015. It is expected that results and best practices will be ready for reporting and sharing in the following fall semester and beyond.

SPRING 2015: Pilot model exercise in mid-level large class; work with core group of instructors to define IL in the discipline, develop learning outcomes for stages of the program, and identify most likely “paths” of course work through the program (i.e., identify target courses); perform gap analysis between LO’s and program goals to identify what is addressed and what is not; develop full implementation strategy and timeline

SUMMER 2015: Assignment and assessment design; continued communication with instructors

FALL 2015: Implementation of exercises and assessments in target courses; monitor progress and consult; collection of assessment data

SPRING 2016: Data analysis and interpretation; compilation of results for local dissemination and reporting; revise and improve exercises and assessments; identify new target courses for the fall

SUMMER 2016: Begin workshops with instructors in other programs to promote adoption and implementation of model; additional courses in program targeted

FALL 2016: Full implementation in program; apply relevant assessment data to program review; monitor and consult on implementation in other programs
CURRICULUM VITAE

BRIAN WINTERMAN
Information Fluency and Assessment Librarian, Teaching and Learning Department
Indiana University • Wells Library W121 • Bloomington, IN 47405
bwinterm@indiana.edu

Education

Master of Library Science, Indiana University, Bloomington, IN (2003)
BA in Anthropology and Classical Studies, Indiana University, Bloomington, IN (1998)

Professional Experience

2009-present: Information Literacy and Assessment Librarian, Teaching and Learning, IUB
2008-2009: Head, Geography and Map Library and Assistant Librarian, Life Sciences Library and Chemistry Library, IUB
2004-2009: Assistant Librarian, Life Sciences Library and Chemistry Library, IUB

Professional Memberships

Special Libraries Association (SLA), Biomedical, Chemistry, and Sci-Tech Divisions, 2004-2010
Association of College and Research Libraries, Instruction Section, 2007-2008
Chemical Information Division of the American Chemical Society (ACS), 2007-2008
Indiana Health Sciences Librarians Association, 2004-2006
Indiana University Librarians Association, 2004-present

Professional Development, Research, and Creativity

Awards, Grants, and Research

- 2005: White Collaborative Award. Designed and assessed a pilot for a biology information literacy course with George Hegeman, Prof. Emeritus of Microbiology.
- 2007: Scholarship of Teaching and Learning Research Award. Explored and assessed integration of information literacy principals with courses and curricula in different disciplines.
- 2008: Science Seeker. Designed and assessed a module to teach information literacy skills in a large entry-level biology lecture.
- 2010: Science Seeker II. Designed and assessed a more condensed and sustainable module (see Science Seeker above).
- 2010: New Pedagogies/New Technologies Grant. Partnered with Medical Sciences faculty to improve teaching and learning in large physiology lecture with new teaching approaches and new technology.
- 2011-12: RAILS (Rubric Assessment of Information Literacy Skills). National study funded my IMLS, et al., headed by Dr. Megan Oakleaf.
- 2012: SEA Scholars. $50k from Alfred P. Sloan and Teagle to train and employ STEM graduate students as scholars of information literacy integration and assessment at the program level.
• 2013: Scholarship of Teaching and Learning Research Award. Explored and assessed integration of information literacy principals with courses and curricula in different disciplines.

Presentations

• 2008: Scholarship of Teaching and Learning Poster Session. Overview of SOTL grant research.
• 2009: Georgia Conference on Information Literacy, Speaker. Overview of information literacy research.
• 2009: International Society for the Scholarship of Teaching and Learning Poster Session. Results of SOTL grant research.
• 2009: Purdue Information Literacy Forum, Featured Speaker. Information literacy initiatives, assessment, and policy at IUB.
• 2010: SLA Annual Conference Poster Presentation. IUB Library re-organization and implications for information literacy initiatives.
• 2010: Association of Research Libraries (ARL) Assessment Conference. Integrated Information Literacy Education and Assessment at Indiana University, Bloomington: Progress and Possibilities.”
• 2012: Scholarship of Teaching and Learning. Co-presented with Dr. Megan Oakleaf on rubric assessment of information literacy skills.
• 2012: Society for Neuroscience. Poster presentation on Information Fluency grant results.
• 2012: LOEX. Presentation on library teaching and learning initiatives in greater organizational context.

Publications


Donovan, C., Slough, R., & Winterman, B. 2011. Information Literacy for Multiple Disciplines: Toward a Campus-Wide Integration Model at Indiana University, Bloomington. *Communications in Information Literacy, 5, 1: 38-54.*

Malacinski, G. M., & Winterman, B. (2012). Engaging and motivating undergraduate science students in a writing workshop designed to achieve information literacy and professional level competence. *International Journal of Arts & Sciences, 5*(6), 397-414.

**Continuing Education**

- 2005: Chemistry CE courses at SLA
- 2006: PubMed Training
- 2006: ACRL workshop on Information Literacy Assessment
- 2006: Association of Research Libraries Leadership Workshop
- 2006: PubChem Training
- 2008: National Center for Biotechnology Information 3-day workshop on Molecular Databases
- 2011: ACRL Information Literacy Immersion Assessment Track
- 2012: RAILS – Rubric Assessment of Information Literacy Skills

**Courses and Committees**

**Courses**

- 2005-present: SLIS L624/S523 Information in Science and Technology
- 2006-2008: Biology L301 Information Literacy in Biology (see above under Performance)
- 2008-present: Biology L322 Writing Workshop in Molecular Biology

**Relevant Committees**

- 2006-present: Bloomington Faculty Council Educational Policies Committee
Rebecca Lave
Department of Geography, Indiana University
Bloomington, IN 47405
rlave@indiana.edu

EDUCATION
Reed College B.A. in interdisciplinary Art History and Political Science, 1993.

SELECTED PROFESSIONAL EXPERIENCE
2014 – Associate Professor, Geography Department, Indiana University.
2008 – Assistant Professor, Geography Department, Indiana University.
1999 – 2005 Senior Associate, Design, Community & Environment, Berkeley, CA.

Research Activities

BOOKS

Academic Reviews:
Haeffner, Melissa. 2013. Society & Space - Environment & Planning D.

Popular Media:
RECENT PEER REVIEW ARTICLES


Lave, R. 2014. “Neoliberal Confluences: The Turbulent Evolution of Stream Mitigation Banking in the U.S.” *Political Power and Social Theory*.


RECENT INVITED PRESENTATIONS: INTERNATIONAL

2015 University of British Columbia, Canada, Department of Geography. 3/12/2015.

2015 University of Victoria, Canada, Department of Environmental Studies. 3/10/2015.


2013 Public lecture and instructor at ENTITLE workshop, Autonomous University, Barcelona, Spain. 6/3 – 6/7/2013.
2012 Interdisciplinary Seminar, University College London, Department of Geography. 10/11/2012
2012 Invited speaker, special Session on bridging physical and social geography, Canadian Association of Geographers, Waterloo, ON. 5/28/12.
2011 Uppsala University, Sweden, Department of Economic and Social Geography. 5/19/11.
2011 Umeå University, Sweden, Department of Ecology. 5/18/11.
2008 Invited lead speaker for two-session stream on Collins and Evans’ Rethinking Expertise. Royal Geographic Society/Institute of British Geographers. London.

Teaching

Teaching Awards
2014 Trustees Teaching Award for excellence in undergraduate instruction
2012 Nominated by geography undergraduates for the campus-wide James P. Holland Award for Exemplary Teaching and Service to Students
2012 Trustees Teaching Award for excellence in undergraduate instruction
2010 Trustees Teaching Award for excellence in undergraduate instruction

Courses Taught
*G208: Environment and Society. Introduces environmental physical and social science. (Regular and Honors versions)
*G315: Environmental Conservation. Explores major controversies in the environmental movement including wilderness preservation, population, and sustainable development. (Regular and Intensive Writing versions)
*G316: Political-Economic Geography. Traces the origins of the current global political-economic order through the history of capitalism, colonialism, and neoliberalism.
*G341: Ecological Restoration: Science and Politics. Investigates the deeply interconnected history, philosophy, ecology, geomorphology, and political economy of restoration
*G449/549: Political Ecology. Seminar on the development of, and current hot topics within, political ecology including urban political ecology, political ecology of the body, and science studies.

*G440/540: Geographies of Technology. Introduces the interdisciplinary study of science and technology by focusing on cases in which the technology and knowledge transfer processes are interrupted or reversed.

* Developed at Indiana University

Service

DEPARTMENTAL SERVICE
2013- Convener. Professional development and teaching workshops.
2014 Salary Committee. Member of annual faculty evaluation committee
2013-2014 Search Committee Chair. Chaired search committees for Political Geography position.
2013-2014 Search Committee Chair. Chaired search committee for Geography of EU position.
2013-2014 Department lead at COAS learning assessment workshops
2013 Faculty retreat co-organizer and co-facilitator.
2012 Search committee member for Development Geography and Global Environmental Change positions.
2010- Director of Undergraduate Studies. Recruited majors, developed new departmental brochure, evaluated requests for transfer of credits, developed material for departmental external review, worked on overhaul of undergraduate program, developed monthly teaching workshop series for faculty and graduate students.
2010 Salary Committee. Member of annual faculty evaluation committee.
2009 Space Committee. Member of committee to address shifting space needs in the Geography Department

CAMPUS SERVICE
2014 Member 21st Century Liberal Arts Curriculum Task Force
2014 Member Bloomington Faculty Council Committee on Mergers, Reorganizations and Eliminations
2014 Member selection committee for Sustainability Course Development Fellowship
2013 Reviewer IU pre-dissertation summer fellowship.
2011 Member selection committee, Summer Writing/Teaching Fellowship.
Abbreviated CV

Education

2010 – Ph.D., Atmospheric Science, University of Alabama in Huntsville
2005 – M.S., Atmospheric Science, University of Alabama in Huntsville
2002 – B.S., Meteorology, University of Oklahoma, Norman

Professional Experience

Lecturer August 2014 –
Visiting Assistant Professor 2012 – May 2014
Department of Geography and Department of Geological Sciences
Indiana University, Bloomington, Indiana

Postdoctoral Fellow 2010 – December 2011
Cooperative Program for Operational Meteorology, Education, and Training (COMET)
UCAR, Boulder, Colorado

Research Interests

Observations and predictability of high-impact, hazardous weather events

Numerical weather prediction; numerical simulation of convective storms and systems

Climate trends in atmospheric phenomena (mid-latitude cyclones, thunderstorm frequency and behavior, etc.)

Teaching Experience

Lower Division

Introduction to Atmospheric Science
Introduction to Weather and Climate
Earth, Our Habitable Planet (Earth System Science)
These courses each included supervision of two graduate teaching associates each semester.

Severe and Unusual Weather
Natural Hazards and Extreme Weather

Upper Division

Physical Climatology
Climate Dynamics
Climate Change Impacts

Weather Analysis and Forecasting
Synoptic Meteorology and Climatology
Mesoscale Dynamic Meteorology

Refereed Publications (Research-related)


Selected Additional Experience in Education & Pedagogy

Selection to the “Backward Course Design in Action” Faculty Learning Community, IU Center for Innovative Teaching and Learning, 2014-15 (research/travel stipend: $750)

Selection to the “Flipping the Class” Faculty Learning Community, IU Center for Innovative Teaching and Learning, 2013-14 (research/travel stipend: $750)
Development of 12 all-new laboratory exercises (100%) for the freshman-level *Introduction to Atmospheric Science* course in the Geology Department at IU.

Experience in developing distance-learning training materials as a postdoctoral fellow at COMET. This content reaches audiences that include operational weather forecasters, media, continuing professionals, and students. Topics spanned a wide range of meteorological phenomena, instruments, and techniques.

**Selected Honors, Service, and Affiliations**

Member, American Meteorological Society Board for Early Career Professionals, 2013–2016

Faculty Sponsor, IU Atmospheric Sciences Club, 2014–

Invited Speaker at the “Flipping the Class Mini-Conference” sponsored by the IU Center for Innovative Teaching and Learning, August and November 2013

Invited Speaker at a Workshop sponsored by the IU Center for Innovative Teaching and Learning: “From note-taking to knowledge-making: Engaging students in scientific inquiry”, October 2012


Participation in the 2012 Course Development Institute, Indiana University
James King, Ph.D.

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Indiana University
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www.indiana.edu/~geog/people/king.shtml
http://pages.iu.edu/~kingjs/
Office: 812-855-2916
Mobile: 207 251 3295

EDUCATION

2006 Ph.D., University of Guelph, Department of Geography
2001 B.Sc., University of Guelph, Earth Surface Science

PROFESSIONAL EXPERIENCE

2014 – Present Visiting Assistant Professor, Department of Geography, Indiana University Bloomington
2014 – Present Senior Visiting Researcher, School of Geography and the Environment University of Oxford
2012 – 2013 Senior Lecturer, Keble College, University of Oxford
2011 – 2013 Postdoctoral Research Fellow, School of Geography and the Environment, University of Oxford
2010 – 2011 Lecturer, York University, Department of Geography, Toronto, Canada
2006 – 2010 Postdoctoral Research, Desert Research Institute, Nevada, USA

PUBLICATIONS

Selected Peer-Reviewed Journal Articles


Web-based Publications


GRANTS AND CONTRACTS


CONFERENCE PARTICIPATION

Selected Panels Organized

2014 Session Co-Organizer, Mineral Dust Aerosols: From Small-Scale to Large-Scale Understanding, American Geophysical Union Fall Meeting, San Francisco, California, 15th – 19th December.

2013 Session Co-Organizer, Aeolian Processes and Landforms, European Geophysical Union General Assembly, Vienna, Austria, April 7 – 12.

Discussant/Workshop Attended

2014 Innovative Approaches to Teaching Sedimentary Geology, Geomorphology, and Paleontology Workshop, On the Cutting Edge Professional Development for Geoscience Faculty, NAGT, University of St. Thomas, Saint Paul, June 16-20.
2013 Invited Panel Member, Blogs and Social Media in Scientific Research, European Geophysical Union General Assembly, Vienna, Austria, April 7-12.


TEACHING EXPERIENCE

UNDERGRADUATE

Indiana University
Global Environmental Change: The End of the World As We Know It? (Fall 2014)
Computational Methods in Geography (Spring 2014)
Environmental Change: Nature and Impacts (Spring 2014)
Global Environmental Change (Spring 2014)

Oxford University, UK
Geographical Controversies (Winter 2013)
Earth Systems Processes & Dynamics (Fall 2012, Fall 2013)
Climate Change Impacts and Adaptation (Fall 2012)
Desert Landscapes and Dynamics/Dryland Environments (Winter 2012, Winter 2013)

York University, Canada
Terrestrial Ecosystems (Winter 2011)
Introductory Statistical Analysis in Geography (Fall 2010)
Desert Ecosystems (Fall 2010)

GRADUATE

Desert Research Institute, USA
Aeolian Geomorphology (Spring 2008): One week short course to graduate students at Tottori University, Japan

Indiana University
Environmental Impacts on Arid Landscapes (Fall 2014)

PROFESSIONAL SERVICE

Committees, Groups, and Seminars:
Active Learning Spaces Faculty Learning Community, Indiana University
Faculty Learning Community for Non-tenure track Faculty, Indiana University

Proposals Reviewed for:
U.S. National Science Foundation: DEB Ecosystem Science Cluster; Geomorphology and Land Dynamics Program
Swiss National Science Foundation

PROFESSIONAL MEMBERSHIPS
American Geophysical Union member since 2004
European Geophysical Union member since 2012
International Society of Aeolian Researchers since 2010
British Society for Geomorphology since 2012
National Association of Geoscience Teachers since 2014
Nicholas Nye Wyant
1455 W. Westwind Ct.
Bloomington, IN 47403
nnwyant@gmail.com

EDUCATION

Master of Arts: Library & Information Science May 2008
The University of Iowa Iowa City, IA

Master of Arts: U.S. History December 2007
Wichita State University Wichita, KS

Bachelor of Arts: Political Science August 2004
Wichita State University Wichita, KS

EXPERIENCE

Head, Social Sciences Librarian Oct. 2013-Present
Indiana University: Bloomington
• SCOPUS research committee
• Provosts Committee for Student Welfare

Assistant Professor: Research & Instruction Librarian Aug. 2010-Oct. 2013
Wichita State University
• Head of Social Sciences Reference & Instruction
  o Coordinate Curriculum Mapping
  o Coordinate Assessment
• Department Liaison to Community Affairs, History, Sociology, Political Science & Psychology
• Develop and design instructional videos
  o Created with iMovie and distributed on Youtube
• Create specialized course guides
• Develop curriculum for library instruction
• Oversee and distribute a collection development budget of $91,500 (FY 13)
• Embedded with History, Political Science, & Psychology courses
• Wrote applications to WSU’s IRB board for studies involving
Assessment of student’s learning
Assessment of the value of the academic library

- Assessment
  - Numerous classes across liaison departments
  - Work with teaching faculty to develop information literacy assignments that can be appropriately assessed
  - Collaborate with faculty to design assessment (Political Science & Sociology)

- Scholarly Communication
  - Assessment reports to liaison departments
  - Database and new feature demonstration to librarian colleagues
  - LibGuide design and best practices for WSU

Reference & Instruction Librarian
The University of Iowa Jan. 2008-Aug. 2010
- Moved to Full-time employment January 2010
- Led group instruction and outreach to students
- Designed and implemented usability testing of the main library’s website
- Developed Libguides for subject material
- Wrote applications to Iowa’s Human Subject Board (IRB) for studies involving website evaluation

TEACHING

Information Literacy Classes Taught
- Departments of Community Affairs, Economics, English, History, Political Science, Psychology, & Sociology
- LASI 170: Introduction to Research (for credit library class)
  - One hour credit course
  - Designed syllabus and learning outcomes

Embedded Librarian (Selected)
- Sociology 101: Introduction to Sociology (in-person as well as in CMS)
  - Attended class for one week during their section on scholarly communication
  - Provided supplementary instruction to the instructor’s material
  - Created a discussion board, electronically, via Blackboard
- Sociology 306: Intro to Gender Studies (online only)
  - Created online learning modules
  - Updated custom library guide as needed throughout the semester
- Political Science 365: Political Inquiry (in-person as well as in CMS)
Attended class 6 different occasions during topic discussion
Aided students in finding appropriate research topics
Created online learning modules

**Specialty Workshops** (Selected)
- Google Drive: Using free tools from Google to improve your research
- Surviving Graduate School: tips to make your life easier
- Citation Searching for Tenure & Promotion (for teaching faculty)
- Endnote Citation Manager
- Managing your Digital Identity

**Liaison Outreach**
- Semester Newsletter prepared for each department to promote awareness of library resources and programs
- Attend department meetings
- Report to the Dean of Liberal Arts and Sciences regarding library initiatives
- Creation of database promotion posters distributed throughout campus

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**PUBLICATIONS/PRESENTATIONS**

**Presentations**
- Getting Into the Classroom (Oct. 2012)
  - Kansas Library Association: College & University Libraries Section
- Effectiveness of Online Tutorial Videos as Supplemental Library Instruction (Oct. 2012)
  - Kansas Library Association: College & University Libraries Section
- Student Research & Google (Feb. 2011)
  - Central Methodist University
- Website Evaluation: How to examine & improve your library’s website (Sept. 2010)
  - Iowa Library Association
  - Iowa Library Association: Academic & Research Libraries
- How to Design & Implement Web Usability Testing (May 2009)
  - Iowa Library Association: Academic & Research Libraries
- Facebook & Children: What Parents Need to Know (May 2008)
  - 7 public libraries in Eastern Iowa
  - The University of Iowa: training for graduate students

**Publications**


**PROFESSIONAL COMMUNICATION/DEVELOPMENT**

**American Library Association**

- **ACRL (2009-Present)**
  - Anthropology & Social Sciences Section
  - University Libraries Section

- **RUSA (2009-Present)**
  - History
  - Reference Services Section

- **Committee Work**
  - RUSA History Executive Board (2010-2012)
  - RUSA Best Historical Materials (Chair 2012-2014)
    - Selected materials and coordinated committee review
    - Editor of the Best Historical Materials article for *RUSQ*
    - Conference Planning for ALA Annual 2014
  - ACRL Access to Information (RUSA history representative: 2012-2014)
    - Ongoing development of Information Services for Information Consumers: Guidelines for Providers for the Standards and Guidelines Committee.
  - ANSS Liaison Committee (2013-2015)
21 October 2014

To whom it may concern:

I am very pleased to provide a letter in support for the SOTL Grant proposal submitted by Rebecca Lave, Brian Winterman, James King, and Cody Kirkpatrick on Information Literacy in Geography. Professors Lave, King and Kirkpatrick are members of the Department of Geography faculty, hence my interest.

While Brian Winterman has successfully piloted an information literacy program in Biology, this program does not, on the surface of it, appear to be suitable to the Department of Geography for a number of reasons. First, Geography is inherently postdisciplinary (or one might argue predisciplinary), hence the definition of information literacy is complex and multilayered. Second, like many other programs on campus, Geography lacks a required 4-year sequence. This requires that an information literacy program address learning outcomes in more limited and discreet lengths of time. Third, much of the instruction in Geography is accomplished in large classes, with minimal or no teaching assistance. Thus assigning papers and giving feedback on writing is not always feasible. This will necessitate that information literacy be handled in a component fashion, incorporating classroom technology as necessary. Fourth, given points 1-3, assessment techniques will need to be altered from the model currently in use in Biology.

The faculty members from the Department of Geography who are party to this submission are experts in teaching innovation and assessment. Dr. Lave has spearheaded the department’s assessment efforts to date and she is our Director of Undergraduate Studies. Dr. King has been among the first in the department to utilize Student Building 015, our buildings collaborative teaching and learning classroom and he has more recently worked with James Russell of CITO and SSRC to implement a similar collaborative environment in Student Building 005 using Surface tablet computers. Dr. Kirkpatrick has been a party to the assessment efforts of both the Department of Geography and the Department of Geological Sciences (he holds a joint appointment) and he has worked extensively with CITL on teaching and learning innovation.

I wholeheartedly support this proposal and recommend it to you without hesitation.

Sincerely,

[Signature]

Daniel C. Knudsen
Professor and Chair
Members of the Review Committee:

Please accept this letter on behalf of Nicholas Wyant and Brian Winterman, who are applying for the Scholarship of Teaching & Learning grant to further the development of a model for curriculum integration and assessment of information literacy in science disciplines. As the Associate Dean for Library Academic Services, I provide oversight for a public services unit in the IU Libraries that is strengthened by the expertise of Nicholas and Brian. I am pleased to support their innovative collaboration with the Geography department, as it will advance the libraries’ educational goals and the vision I have for librarian/faculty collaboration at IU.

Through the opportunities afforded by the Information Literacy Grants awarded annually by the IU Libraries, librarians and faculty collaborate to redesign assignments and assessments in order to build information seeking skills and research concepts into individual courses. While these projects have influenced student learning in a variety of disciplines and courses since 2011, a systematic, measurable way of building information literacy into a program or major field of study remains elusive. It is my hope that the work Nicholas and Brian are undertaking with Geography will lead to tangible results demonstrating the value of scaffolded, iterative information literacy outcomes across the curriculum for undergraduates.

The two-year plan proposed by Nicholas and Brian would be a unique opportunity to investigate the challenges for integrating information literacy into a multidisciplinary context, as well as to explore new approaches for teaching the research process in large classes. Learning assessment has long been a priority for the IU Libraries and, with the campus making program review and departmental learning outcomes a priority, the time could not be better for Nicholas and Brian to reinforce the importance of the libraries’ role in these endeavors. I very much appreciate your attention to their application.

Sincerely,

Diane Dallis  
Associate Dean for Library Academic Services  
Indiana University Libraries