

IV. RESEARCH / CREATIVE ACTIVITIES (PROFESIONAL DEVELOPMENT)

A. Peer Evaluation of Research or Creative Activity

As outlined in my Candidate Statement (p. 4), my research and creative activities have been developing since the late 1980s. Since beginning my appointment at Purdue University (1998) and at IUPUI (2001), my research and creative works have been disseminated in 61 publications, exhibitions, and presentations (45 of which were peer reviewed).

In this section, peer reviews from external scholars will provide a clear objective assessment of my publications and creative activities over these seven years. However, beyond the peer review letters, additional letters of support have been requested from faculty, primarily from the School of Medicine, whom I have worked with on a variety of research projects. Supplemental to the external reviewers, their expert testimony provide further evidence of our research ventures, their assessment of the level of my research expertise, and my ability to work collaboratively in an interdisciplinary research setting.

B. Evidence of Scholarly Publications and Presentations

Research Publications & Creative Works

As outlined in my CV and Candidate Statement, my 25 research publications (refereed, non-refereed, and in-review), and 22 creative works (refereed, non-refereed, and in-review) are evidence of my commitment to disseminating my scholarship.

Refereed

- Faiola, A. (1999). Development of a visualization analysis manager: A database system for tracing visual intelligence. *Proceedings of the Jubilee Conference: Mathematical Models in Social Problems, Economy, and Technical Problems. Sochi, Russia, 8*, 155-157.
- Faiola, A. (1999). A comparison study of Russian – U.S. visualization problem-solving. *Proceedings of the Jubilee Conference: Mathematical Models in Social Problems Economy, Technical Problems. Sochi, Russia, 8*, 158-160.
- Faiola, A. (2000). Cross-cultural landscapes of visual intelligence: An investigation of visualization problem-solving across cultural boundaries. *Selected Papers of the International Visual Literacy Association Conference, IVLA2000*, 113-122.
- Faiola, A. (2000). Linking visualization problem-solving to cultural development. *Proceedings of the Automation and Information Technology in Manufacturing, Russia*, 201-202.
- Faiola, A. (2002). A visualization pilot study for hypermedia: Developing cross-cultural user profiles for new media interfaces. *The Journal of Educational Multimedia and Hypermedia. 11*(1), 51-71. [T] (Acceptance rate: 10-19%)
- Banissi, E., Borner, K., Chen, C., Dastbaz, M., Clapworthy, G., Faiola, A., Izquierdo, E., Maple, C., Roberts, J., Moore, C., Ursyn, A., Zhang, J. J., (2004). *Information visualization: Proceedings of the eighth international conference*. Los Alamitos, CA: IEEE Computer Society Press.
- Faiola, A. (2004). The “second psychology” of Vygotsky and Luria: Cross-cultural Web design from a cognitive perspective. *Proceedings of the International Scientific and Technical Conference and Russian School of Young Scientists and Specialists: System Problems of Quality, Mathematical Modeling and Information Technologies. Sochi, Russia, 12*, 7-8.
- Altom, T., Buher, M., Downey, M., Gutierrez, D. & Faiola, A. (2004). Using 3D landscapes to navigate filespace: Extending the data mountain with mountainview. *Proceedings of the HCI Symposium –Information Visualization Conference 2004, IEEE Computer Society Press, London, England*, 645-649. (Acceptance rate: 50%) [T]

- Faiola, A. (2005). Toward an HCI Theory of Cultural Cognition. In C. Ghaoui (Ed.), *Encyclopedia of human-computer interaction*. Hershey, PA: Idea Group Published, p. 70-77. [T]
- Faiola, A. & Matei, S. (2005). Cultural cognitive style and web design: Beyond a behavioral inquiry of computer-mediated communication. In C. Ess & F. Sudweeks (Eds.) *Culture and Computer-Mediated Communication: Toward New Understandings*. *Journal of Computer-Mediated Communication*. 11(1). (Acceptance rate: 10%)
- Matei, S., Wheatley, D. J. & Faiola, A. (2005). On-screen vs. physical affordances in the context of a multimedia cell phone. *Proceedings of the MOBILE-HCI 7th Annual Conference on Human-Computer Interaction Mobile Devices and Services*, ACM Publishers.
- Faiola, A., & Groth, D. (2005). Enhancing 3D File Search with Landscapes and Personal Histories: Exploring the Possibilities of TerraSearch+", *Proceedings of the HCI Symposium –Information Visualization Conference 2005, IEEE Computer Society Press*, London, England, pp. 613 - 618. (Acceptance rate: 50%)
- Faiola, A., Groth, D., & Altom, T. (2005). Integrating the Visualization of Personal Histories of File Usage into 3D Landscapes: Enhancing Desktop File Searching Using TerraSearch+. In G. Salvendy and J. Jacko (Ed.), *Human-Computer Interaction - Ergonomics and User Interfaces, Theory and Practice, Volume 4 - Theories Models and Processes in HCI. Proceedings of the 11th International Conference on Human-Computer Interaction*. Las Vegas: Nevada. (Mahwah, NJ: Lawrence Erlbaum, CD-ROM). (Acceptance rate: 50%)
- Faiola, A. & Matei, S. (2005). Cross-Cultural Computer-Mediated Communication and Online Learning: Assessing the Impact of Web Designer Cognitive Style on Information Design. In G. Salvendy and J. Jacko (Ed.), *Human-Computer Interaction - Ergonomics and User Interfaces, Theory and Practice, Volume 10 - Internationalization, Online Communities and Social Computing: Design and Evaluation. Proceedings of the 11th International Conference on Human-Computer Interaction*. Las Vegas: Nevada. (Mahwah, NJ: Lawrence Erlbaum Publishers, CD-ROM). (Acceptance rate: 50%)
- Faiola, A. & Matei, S. (in press). Cultural cognitive style and the web: Toward a theory and practice of web design for international users. In K. St. Amant (Ed.), *Linguistic and Cultural Online Communication Issues in the Global Age*. Hershey, PA: Idea Group Published.
- Beatty, K., Elliott, R. & Faiola, A. (2006). Seeking news on the internet: An analysis of user behavior in selecting online media outlets. *Proceedings of Cultural Attitudes Towards Communication and Technology 2006*. Tartu, Estonia. F. Sudweeks, H. Hrachovec and C. Ess (eds.), 130-141. (Acceptance rate: 20%)
- Newlon, C. & Faiola, A. (2006). Support for mega-team collaboration with cultural tools:

Providing a Framework for the Dynamic Development of Team Culture. *Proceedings of Cultural Attitudes Towards Communication and Technology 2006*. Tartu, Estonia. F. Sudweeds, H. Hrachovec and C. Ess (eds.), 235-254. (Acceptance rate: 20%)

Faiola, A. & Hillier, S. (2006). Multivariate relational visualization of complex clinical datasets in a critical care setting: A data visualization interactive prototype, *Proceedings of the HCI Symposium –Information Visualization Conference 2006, IEEE Computer Society Press*, London, England, 460-465. (Acceptance rate: 50%)

Non-Refereed

Faiola, A. (1979). The transient object: A look at contemporary thinking and issues as applied to my recent artwork. *Master's Abstracts International*, 65 1. (University Microfilms No. Thesis1979mfaf162).

Faiola, A. (1984). *A computer-assisted instruction overview and prototype*. Unpublished master's thesis, The Ohio State University, Columbus, OH.

Faiola, A. (1988). Principles and Guidelines for a Screen Display Interface. *VideoDisc Monitor*. 8(2), 27-29. [T]

Faiola, A. (2000). A comparison study of Russian - U.S. students in visual cognition. *International Education – EJ*. Archived by the National Library of Australia. <http://www.canberra.edu.au/education/crie/2000-2001/ieej13/studp13.html#1>.

Faiola, A. (2005). *Cross-cultural cognition and online information design: Identifying cognitive styles among web designers of diverse national origin*. Ann Arbor, MI: UMI. <http://docs.lib.purdue.edu/dissertations/AAI3191458/>

In Review

Matei, S. A., Wheatley, D. J., & Faiola, A. (In review). The role of physical affordances in multifunctional device design: Assessing the human-computer interaction of multimedia cell phones. *Journal of Design Research*. InderScience Publishers, Olney, UK.

Faiola, A. & MacDorman, K. (In review). Exploring the influence of web designer cognitive style on information design: A cross-cultural comparison of a holistic and analytical perspective. *Information, Communication and Society*. Taylor & Francis Group, Oxford, UK.

Faiola, A. & Hillier, S. (in review). Expediting health care decision-making using multivariate relational datasets: A medical data visualization system for complex critical care patient assessments. *Workshop on Human-Computer Interaction & Information Design to Communicate Complex Information*, University of Memphis, March 2007.

Creative Activities

Refereed

- Faiola, A. (1977). Mount Holyoke College Art Museum, *Annual Print Exhibition*. Mount Holyoke, MA.
- Faiola, A. (1977). SUNY Albany Fine Arts Museum, *Group Print Exhibition*.
- Faiola, A. (1979). Finger Lakes Community College Gallery, *Two-Man Exhibition*. Canandaigua, New York.
- Faiola, A. (1979). The Ohio State University Fine Arts Gallery, *Ohio Five Exhibition*. Columbus.
- Faiola, A. (1983). *The earth*. New York PRINT Magazine. (Acceptance rate: 10%)
- Faiola, A. (1983). *Biology*. Columbus: Communication Society of Columbus Annual
- Faiola, A. (1984). *Physical geology*. New York PRINT Magazine. (Acceptance rate: 10%)
- Faiola, A. (1984). *Advertising*. Sewickley, PA: Printing Industry of America Annual.
- Faiola, A. (1984). *Management*. Sewickley, PA: Printing Industry of America Annual.
- Faiola, A. (1985). *Personality*. Sewickley, PA: Printing Industry of America Annual.
- Faiola, A. (2001). Maryland Printmakers Assoc. Online Print Exhibition, www.marylandprintmakers.org/folios/foliozoom.asp?f=3&i=4TH.
- Faiola, A. (2003). ArtCentre of Plano, *National Juried Exhibition*. Plano, TX: ArtCentre of Plano.
- Faiola, A. (2003). Phillips Gallery, *Invitational Print Exhibition*. Sanibel, Florida.
- Faiola, A. (2004). Lithograph, *32nd Annual Juried Competition*. Monroe, Louisiana: Masur Museum of Art.
- Faiola, A. (2005). William Patterson University, Ben Shahn Galleries, *Juried Printmaking Exhibition*, (Purchase Award / for Gallery Private collection), Wayne, NJ.
- Faiola, A. (2006). Lithograph, Ninth Annual National Prize Show, Cambridge Art Association, Kathryn Schultz Gallery, Cambridge, MA.

Non-Refereed

- Faiola, A. (1984). *CAI support: Agronomy 290*. [Computer-Based Educational System]. The Ohio State University Campus Network. School of Agriculture, Columbus, Ohio.
- Faiola, A. (1986). *Oil exploration*. The Center of Science and Industry. [Computer-Based Educational/Training System]. Columbus, Ohio.
- Faiola, A., & DeBloois, M. (1986). *Power plant pressurization procedures*. [Computer-Based Educational/Training System]. American Electric Power Company. Columbus, Ohio.
- Faiola, A. (1986). *Hotel procedures: Pickett suite hotels training*. [Computer-Based Educational/Training System]. Columbus, Ohio.

Research Presentations

Refereed Research Conference Paper Presentations

- Faiola, A. (8/11/2000). Cross-cultural landscapes of visual intelligence: an investigation across cultural boundaries. Iowa State University, *International Visual Literacy Assoc. Annual Conference, Ames, Iowa*.
- Faiola, A. (4/22/2002). Cross-cultural workshop presentation (part 1): Cross-cultural studies of hypermedia design and accessibility. *Presented at the: SIGCHI Conference, It's A Global Economy Out There: Usability Innovation for Global Market Places. Minneapolis, MN.* (Acceptance rate: 10%)
- Faiola, A. & Sturm, C. (4/22/2002). Cross-cultural workshop presentation (part 2): Aspects of Remote Testing. *Presented at the: SIGCHI Conference Workshop, It's A Global Economy Out There: Usability Innovation for Global Market Places. Minneapolis, MN.* (Acceptance rate: 10%)
- Buher, M. & Faiola, A. (7/24/2004). Using 3D landscapes to navigate filespace: extending the data mountain with mountainview. *Presented at the: HCI Symposium –Information Visualization Conference 2004, IEEE Computer Society Press, London, England.*
- Faiola, A., (7/22/2004). Living with computing: thoughts on humanizing technology. (Colloquium Presentation.) *Presented at the: Second International Conference on New Directions in the Humanities, 2004, Monash University Centre, Prato, Italy.*
- Faiola, A. & Matei, S. (5/17/2005). The cultural cognitive style of multimedia development: identifying designer cognitive structures for the Web. *Presented at the: International*

Communication Association Conference.

Faiola, A. (7/25/2005). Cross-cultural computer-mediated communication and online learning: assessing the impact of Web designer cognitive style on information design. *Presented at the: HCI International'05, Las Vegas.*

Faiola, A. (7/25/2005). Integrating the visualization of personal histories to enhance file search in 3D landscapes: applying file search to 3D View. *Presented at the: HCI International'05, Las Vegas.*

Matei, S., Wheatley, D. J. & Faiola, A. (9/21/2005). On-screen vs. physical affordances in the context of a multimedia cell phone. *Presented at the: MOBILE-HCI 7th Annual Conference on Human-Computer Interaction Mobile Devices and Services, Chicago, IL.*

Matei, S. A., Wheatley, D. J., & Faiola, A. (6/19/2006). Multipurpose mobile devices, graphic user interfaces and physical affordances: a case study. *Presented at the: International Communication Association Conference, Dresden, German.*

Beatty, K., Elliott, R. & Faiola, A. (6/28/2006). Seeking news on the internet: an analysis of user behavior in selecting online media outlets. *6th Biennial Conference on Cultural Attitudes Towards Technology and Communication.*

Newlon, C. & Faiola, A. (6/28/2006). Support for mega-team collaboration. *6th Biennial Conference on Cultural Attitudes Towards Technology and Communication, University of Tartu, Estonia.*

Faiola, A. & Hillier, S. (7/5/2006). Multivariate relational visualization of complex clinical datasets in a critical care setting: a data visualization interactive prototype, *Information Visualization Conference 2006, London, England.*

RoyChowdhury, D. & Faiola, A. (7/6/2006). (Poster) Enhancing Web browsing through Page Cloning: facilitating user memory by visualizing Web histories, *Information Visualization Conference 2006, London, England.*

Invited Research Presentations

Faiola, A. (4/6/2005). Web design and usability: design an effective strategy for academic Web development. *IUPUI Communications Division and Campus-Wide Web Deployment.*

Faiola, A. (4/13/2005). Interaction design and system usability: design an effective strategy for Web and software development. *Indianapolis Quality Assurance Association Inc.*

Special Mention of the Six Refereed Publications in Three Categories

To further demonstrate the significance of my research, it is important that I highlight six important refereed papers. These papers are noteworthy because of: 1) the caliber of the journal and publisher, 2) the extent of dissemination that the published work received, and 3) my personal assessment of the value of the paper in regard to my overall research agenda.

Category One: Research in Cross-Cultural Cognition and Web Design

Publication 1#:

Faiola, A. (2002). A visualization pilot study for hypermedia: Developing cross-cultural user profiles for new media interfaces. *The Journal of Educational Multimedia and Hypermedia*. 11(1), 51-71.

Although my primary Fulbright appointment focused on teaching, some research transpired because of my particular interests in cross cultural computer mediated communication. Hence, this paper has been highlighted as a significant outcome of this research in Russia as a Fulbright Scholar. The study compared how U.S. and Russian participants visualize and represent images in real-time. The intent was to provide new insights that might support existing design and interface standards that attempt to remedy the complexities of international Web design related to cultural-specific logic.

I should also add that this was the first research publication printed in a highly ranked new media journal that presented my research on cultural cognition. Since this paper was published, the theoretical model of my research has advanced significantly. Please refer to the Fulbright section of Teaching for more detail related to this matter, as well as the brief overview of the topic of the study.

Publication #2 & 3:

Faiola, A. & Matei, S. (2005). Cultural cognitive style and web design: Beyond a behavioral inquiry of computer-mediated communication. In C. Ess & F. Sudweeks (Eds.) *Culture and Computer-Mediated Communication: Toward New Understandings*. *Journal of Computer-Mediated Communication*. 11(1). (Acceptance rate: 10%)

Faiola, A. & MacDorman, K. (In review). Exploring the influence of web designer cognitive style on information design: A cross-cultural comparison of a holistic and analytical perspective. *Information, Communication and Society*. Taylor & Francis Group, Oxford, UK.

Papers two and three present the theory and research of cultural cognitive design from two perspectives. Each paper provides a similar theoretical underpinning, but they differ in their emphasis on the holistic as opposed to the analytic perspective of cognitive styles, which impact web design during the process of content production.

For example, paper two argues that studies have linked culture to online user preferences and performance. At the same time, few communication researchers have recognized the impact of culture on online information design and usability. It is important to ask if people are better able to use and prefer Web sites created by designers from their own culture. We proposed that to improve computer-mediated communication, Web site design should accommodate culturally diverse user groups. We first presented research that aligns East Asian cultures with more holistic cognitive styles and Western cultures with more analytical cognitive styles. Building on this contrast, a theory of cultural cognitive design was proposed as a means of understanding how cognitive styles that develop under the influence of culture lead to different ways of designing and organizing information for the Web. Reference is made to other empirical studies done by Faiola and Matei, as outlined in my CV.

Publication #4:

Faiola, A. (2005). Toward an HCI Theory of Cultural Cognition. In C. Ghaoui (Ed.), *Encyclopedia of human-computer interaction*. Hershey, PA: Idea Group Published, p. 70-77. [T]

This chapter in the Encyclopedia of HCI is significant because of the importance of this reference text for HCI students and scholars, as well as its potential for broad distribution, and hence dissemination of my theory on cultural cognitive design.

Category Two: Current Project in Medical Data Visualization

Publication #5:

Faiola, A., & Groth, D. (2005). Enhancing 3D File Search with Landscapes and Personal Histories: Exploring the Possibilities of TerraSearch+", *Proceedings of the HCI Symposium –Information Visualization Conference 2005, IEEE Computer Society Press*, London, England, pp. 613 - 618. (Acceptance rate: 50%)

Faiola, A. & Hillier, S. (2006). Multivariate relational visualization of complex clinical datasets in a critical care setting: A data visualization interactive prototype, *Proceedings of the HCI Symposium –Information Visualization Conference 2006, IEEE Computer Society Press*, London, England, 460-465. (Acceptance rate: 50%)

These two publications are noteworthy because they represent an additional path in my research agenda. The first paper, presented at the IV'05 Conference, refers to my

continued interest in information visualization as it applies to interface design, usability, and short term memory. The second paper, presented at the IV'06 Conference, also referred to several times in this document, is related to my current research in medical data visualization.

These two papers also embody a new and important area of my research that has evolved out of opportunities to collaborate with faculty from the School of Medicine, especially in light of the specific applicability of HCI in the field medical informatics, Working with Dr. Hillier and other health care clinicians and researchers has been a natural outcome of our mutual interests to provide solutions to a broad range of IT problems currently facing the medical industry.

Category Three: Recent Juried Lithography in Top Ranked Show

Publication #6:

Faiola, A. (2006). Lithograph, Ninth Annual National Prize Show, Cambridge Art Association, Kathryn Schultz Gallery, Cambridge, MA.

The mention of this national juried show is significant because of the degree of exposure that my creative work received, as well as the rigor of peer review, and the popularity of this show in the Cambridge. This is also my most recent work to be shown in an exhibition in the U.S.

The relevance of my creative activities are highly beneficial in that they facilitate the essential nature of the creative process that stems from a profound need to resolve visual and abstract design problems. Hence, constructs including visual form and symbolic representations often help to develop critical thinking skills, later to be applied to practical problems facing society in every day life. For this reason, the outcome of my creative work has continued value in that it provides not merely an outlet for creative thought, but much more. In fact it is a vehicle through which I can intellectually explore new ideas and strengthen habits of critical thinking that allow the synthesizing of information.

List of Scholars that have Cited my Research Publications and Their Academic Affiliation

This lists 12 authors who have cited my research publications. The purpose of this list is to quickly acknowledge the authors and the caliber of their university affiliation. (*In alphabetical order.*)

Scholar	Affiliation
1. Andreoli, Roberto	Universit`a degli Studi di Salerno, Fisciano, Italy
2. Callahan, E	Indiana University
3. De Chiara, Rosario	Universit`a degli Studi di Salerno, Fisciano, Italy
4. Erra, Ugo	Universit`a degli Studi di Salerno, Fisciano, Italy
5. Ess, Charles Ess	Drury University
6. Iannaccone, Antonio	Universit`a degli Studi di Salerno, Fisciano, Italy
7. La Greca, Fernando	Universit`a degli Studi di Salerno, Fisciano, Italy
8. Ng, Wee-Keong	Nanyang Technological University, Singapore
9. Ong, Kok-Leong	Deakin University, Australia
10. Rauterberg, M.	Technical University Eindhoven
11. Scarano, Vittorio	Universit`a degli Studi di Salerno, Fisciano, Italy
12. Wenyuan Li	University of Texas at Dallas

Detail of Authors Citing My Research Publications

This list of seven publications provides the complete citation and the specific quote or referenced area. To convey the degree and context of the citation, I have included excerpts from the actual text.

- Title:** Computer Assisted Language Learning: Context and Conceptualization
Author(s) & Affiliation: Michael Levy, University of Queensland, Australia
Reference: *Oxford: Elsevier Advanced Technology, (1990). p. 264.*
Quote:
“... the (1990a). Essinger, J., and Hicks, R. (1991), Making Computers More Human: Designing for Human-Computer Interaction. **FAIOLA**, T. (1989), 'Improving Courseware Development Efficiency: The ...”
- Title:** Culture and Computer-Mediated Communication: Toward New Understandings
Author(s) & Affiliation: Charles Ess, Interdisciplinary Studies, Drury University
Fay Sudweeks, Information Systems, Murdoch University
Reference: *Journal of Computer-Mediated Communication, 11(1).* (2005)
Callahan, E. School of Library and Information Science, Indiana University
Quote:
“Last, Anthony **FAIOLA** and Sorin Matei offer perhaps the most dramatic of the paradigm shifts proposed in this section, as they take up Hall and Hofstede in terms of their *psychological* foundations. ...Accordingly, they propose to build a framework for analyzing

cross-cultural communication online that focuses on *cognition*, based specifically on the work of Vygotsky ([1934] 1979, [1932] 1989) and Nisbett and colleagues (Nisbett & Norenzayan, 2002; Nisbett, Peng, Choi, & Norenzayan, 2001). ... **FAIOLA** and Matei highlight specifically the elements of "...page format, imagery, color, information architecture, and system interaction." This is similar to Würtz and Callahan in Section I, who found strong cultural differences in the graphical elements of websites. While drawing on a distinctively different framework for cultural analysis, **FAIOLA** and Matei thus reiterate the importance of what we call "culturally-aware design:" To build sites that are robust environments for content delivery, web designers must understand how cognitive style can directly impact web interface and content design and user interaction, especially in terms of holistic and analytic orientation, and their consequences for user behavior in interactive, hyperlinked media environments. (**FAIOLA** & Matei, this issue). ... Their article, finally, includes one of the most extensive reviews of research on cross-cultural communication vis-à-vis online environments among the articles collected here. ... More radically, the alternative frameworks proposed by Hewling (critical discourse analysis), Brock (based on the cultural analyses of W. E. B. DuBois), and **FAIOLA** & Matei (cultural cognition theory) offer new insights. Their success suggests that specific expressions and phenomena of intercultural communication online might be more appropriately and fruitfully examined through frameworks of cultural analysis that go beyond those of Hall and Hofstede. At the same time, it is noteworthy that the most successful uses of Hall and Hofstede in Section I—Würtz's and Callahan's findings regarding the graphical elements of advertising websites—are consistent with the findings of the most radical shift from Hall and Hofstede proposed in Section II, i.e., **FAIOLA** and Matei's determining the culturally-variable importance of format, imagery, color, information architecture, and system interaction."

3. **Title:** HCI as an engineering discipline: To be or not to be!?

Author(s): Rauterberg, M.

Reference: *African Journal of Information and Communication Technology*. (2006)

Quote:

"The research field of HCI has raised a lot of attention, interests and expectations by industry. ... ICT companies have a growing need for ICT professionals with an increasing expertise in HCI (Czerwinski et al., 1996; **FAIOLA**, 2003).

4. **Title:** Interactive 3D Environments by using videogame engines

Author(s): Roberto Andreoli, Rosario De Chiara, Ugo Erra, Vittorio Scarano

Reference: Proceedings of the Ninth International Conference on Information Visualisation (IV'05), *IEEE Computer Society Press*.

Quote:

"Another interesting application of videogame-like presentation techniques was studied in the "Mountain View" project, described in Altom, T., Buher, M., Downey, M, & **FAIOLA**, A., where, by using an interesting combination of hyperbolic interface and videogame-based interaction, authors plan to provide a usable and efficient 3D interface to data archive.

5. **Title:** Some Real Experiences in Developing Virtual Environments

Author(s): R. Andreoli, R. De Chiara, U. Erra, A. Iannaccone. F. La Greca, V. Scarano

Reference:

Quote:

“More recently, interest has grown on the efficiency and photorealism that can be provided on inexpensive hardware by using engines. Several (so called) “Serious Games” have been studied, and the interest is witnessed by the crowded tracks in the Computer Games Conferences (in the last few years) and by the growing number of non-ludic applications that are based on 3D videogame engines (see, e.g., Altom, T., Buher, M., Downey, M., & **FAIOLA**, A.)...

6. **Title:** Visual Terrain Analysis of High-dimensional Datasets (Book Chapter)

Author(s): Wenyuan Li, Kok-Leong Ong, Wee-Keong Ng

Reference: *Book:* Knowledge Discovery in Databases, Springer, 2005

Quote:

“Although the terrain appear similar to the landscapes used in capital markets and Mountainview (Altom, T., Buher, M., Downey, M., & **FAIOLA**, A.) used to navigate file systems, there are significant differences. First, our data terrain has mathematical and algorithmic roots while the landscape is simply a visualization interface.”

7. **Title:** Voromap: A Voronoi-based tool for visual exploration of multi-dimensional data

Author(s): R. Pinho, M. Cristina, F. de Oliveira, R. Minghi, M. G. Andrade

Reference:

Quote:

“Other similarity relations between texts can be built, for example using the concept of Kolmogorov complexity between character streams, which allows computing distances among documents in a single step. Once data items are projected onto a 2D space, many surface and graph-based visualizations can be built (Altom, T., Buher, M., Downey, M., & **FAIOLA**, A.) often using visual attributes such as height and color to reflect relevant user-defined properties.”

C. Department (Informatics) Evaluation of Stature of Journals and Art Galleries

Name, Publisher, & URL	RESEARCH PUBLICATIONS Description and Evaluation of Publication, Conference Proceeding, & Peer Review Process acceptance	% RATE OF ACCEPTANCE
<p>Description Codes: EB = <u>Elizabeth Boling</u>, Chair of Instructional Systems Technology, IUB. MS = <u>Marty Siegel</u>, Executive Associate Dean and Associate Dean for Graduate Studies and Research; and Former Director of HCI at IUB. CV = <u>Christopher Vice</u>, Chairman, Design Department, Herron School of Art and Design AF = Comments by <u>Anthony Faiola</u>, from personal knowledge and publication's Web site.</p>		
<p>JOURNALS & PROCEEDINGS OF CONFERENCES (All Refereed)</p>		
<p>Journal of Computer-Mediated Communication</p> <hr/> <p>Publisher: Blackwell Publishers, Oxford, UK</p> <hr/> <p>http://jcmc.indiana.edu/</p>	<p><i>JCMC</i> is a first-tier ranked publication of ICA. It is a highly respected journal research journal among those from the communication fields involved with technology related issues and communication theory and practice. Theoretical and methodological issues in the study of computer-mediated communication as it applies to distance learning, interpersonal relationships online, electronic commerce; computer-mediated communication (CMC) and the law, online journalism and Internet survey research.</p> <p>Comments: AF</p> <p>According to the: Annenberg School for Communication, University of Southern California, JCMC gets 5 million hits per year.</p>	<p>10%</p>
<p>Journal of Design Research.</p> <hr/> <p>Publisher: InderScience Publishers, Olney, UK.</p> <hr/> <p>http://www.inderscience.com/browse/index.php?journalID=192</p>	<p>The goal of <i>JDR</i> is to bring together theories, models and actual products from related design areas, including engineering, architecture, industrial design and planning, to emphasize human aspects as a central issue of design through integrative studies of social sciences and design disciplines, to offer a platform for high-quality research, theory making, analysis, education, and practice, to support the dialogue between practitioners and academics, avoiding a purely academic discussion on design science, and to highlight new developments in artifact design.</p> <p>Comments: AF</p>	<p>40%</p>
<p>Information, Communication and Society.</p> <hr/> <p>Publisher: Routledge Journal - Taylor & Francis Group, Oxford, UK</p> <hr/> <p>http://journalsonline.tandf.co.uk/(ynkzse55y1in1xbkkaaliw)/app/home/journal.asp?referrer=parent&backto=searchpublicationsresults,1,1;home,1,1;</p>	<p>Drawing together the most current work upon the social, economic and cultural impact of the emerging properties of the new information and communications technologies, this journal positions itself at the centre of contemporary debates about the information age. <i>Information, Communication & Society</i> transcends cultural and geographical boundaries as it explores a diverse range of issues relating to the development and application of information and communications technologies.</p> <p>http://www.aoir.org/?q=node/719</p> <p>Comments: AF</p>	

<p>Cultural Attitudes Towards Communication and Technology</p> <p><u>Publisher:</u> Murdoch University, Australia</p> <p>http://www.it.murdoch.edu.au/catac/index_home.html</p>	<p>The biennial <i>CATaC</i> conference series continues to provide an international forum for the presentation and discussion of current research on how diverse cultural attitudes shape the implementation and use of information and communication technologies (ICTs). The conference series brings together scholars from around the globe who provide diverse perspectives, both in terms of the specific culture(s) they highlight in their presentations and discussions, and in terms of the discipline(s) through which they approach the conference theme.</p> <p>Comments: AF</p> <p>Also see: http://www.it.murdoch.edu.au/catac/</p>	<p>50%</p>
<p>Information Visualization Conference: HCI Symposium</p> <p><u>Publisher:</u> <i>IEEE Computer Society Press</i></p> <p>www.graphicslink.demon.co.uk/TV04/</p>	<p>This symposium aims to provide an international forum for the dissemination and exchange of information on theoretical, generic, and applied areas of human-computer interaction (HCI) and usability issues within the broader scope of information visualization. The relationship between information visualization and HCI is an increasing phenomenon, including concerns for virtual reality and 3D environments, interaction, navigation, and information visualization interfaces.</p> <p>Comments: AF</p>	<p>50%</p>
<p>Automation and Information Technology in Manufacturing Conference Proceedings</p> <p>www.cad.dp.ua/english/news-e.html</p>	<p>A virtual conference organized by the Ministry of Education of the Russian Federation and Tula State University. Focus of the conference was on the research of international scholars in the areas of computer and engineering graphics.</p> <p>Comments: AF</p>	<p>???</p>
<p>International Visual Literacy Association Conference Proceedings</p> <p><u>Publisher:</u> Journal of Visual Literacy</p> <p>www.ivla.org/organalist.htm</p>	<p>The <i>IVLA</i> conference is focused on a better understanding of the way we derive meaning from what we see and the way we interact with our visual environment. Research is represented by a wide range of disciplines including: the arts, sciences, communication theory, semiotics, graphic design, photography, new media, architecture, business, education, educational technology, instructional design, health, psychology, linguistics, philosophy, cultural anthropology, brain research, and computer applications. Cross-fertilization of ideas coupled with human interests and values have made IVLA a vital and multidisciplinary forum for over thirty years.</p> <p>Comments: AF</p>	<p>50%</p>
<p>Human-Computer Interaction International Conference Proceedings</p> <p><u>Publisher:</u> <i>IEEE Computer Society Press</i></p> <p>http://www.hcii2007.org/</p>	<p><i>HCII</i> is the second largest HCI conference next to SIGCHI. The venue of this international conference is focused on many areas within the field. These thematic areas address a wide range of issues pertaining to cognitive and computer science aspects of interacting with computers, such as: adaptive interfaces, analysis and design methods, architectures for interaction, computer-augmented environment, computer-based learning, cross cultural interfaces, graphical user interface; HCI standards, home and entertainment systems; information visualization, etc.</p> <p>Comments: AF</p>	<p>???</p>

<p>Journal of Printing and Publishing Scientific Research</p> <p><u>Publisher:</u> Moscow State University of the Arts Press</p>	<p>(Журнал печатать и опубликовывать научное исследование): This scientific journal disseminates information on modern scientific and technical developments, technology and economic issues related to printing and publishing. It is the leading publication of its kind and is published by Moscow State University of the Printing Arts.</p> <p>Comments: AF</p>	<p>???</p>
<p>Journal of Training and Development</p> <p>http://www.astd.org/astd/publications/td_magazine</p>	<p><i>JTD</i> is a 56 year old journal dedicated to the evolution of the profession of training and development and workplace learning and performance.</p> <p>Comments: AF</p>	<p>20%</p>
BOOKS		
<p>Encyclopedia of Human-computer interaction & Linguistic and Cultural Online Communication Issues in the Global Age</p> <p><u>Publisher:</u> Idea Group Published, Hershey, PA</p>	<p>Idea Group Inc. (IGI) published the two books that my papers (chapters) are in. IGI is an international publishing company specializing in high-quality encyclopedias, books, journals, and teaching cases, research publications in the fields of information science, technology, and management. <i>IGI</i> is also a proud sponsor and organizer of the Information Resources Management Association (IRMA) International Conferences, which brings together some of the greatest minds in information science, technology, and management, and fosters novel research in the field. The research from the IRMA International Conference is gathered in IGI's conference proceedings in both print and CD-ROM forms.</p> <p>Comments: AF</p>	
CREATIVE (Refereed Publications and Juried Exhibitions)		
<p>Print</p> <p>http://www.printmag.com/</p>	<p>“This is the place to be published as a serious designer. For a person working as an academic, publication in <i>Print</i> indicates that you have the performance credentials to be teaching future designers. While juried review does not work the same way in this kind of publication as in an academic journal, the standard of editorial review is at least as high and far more competitive.” “<i>Print</i> magazine, the preeminent graphic design publication, won its third National Magazine Award for General Excellence from the American Society of Magazine Editors (ASME) on April 13 [2005 – also in 1994 and 2002]. In ASME's 40th annual competition, <i>Print</i> took top honors in the under-100,000 circulation category.” Comments: EB</p> <p>[<i>PRINT</i> is a]Highly respected and peer reviewed publication. Comments: CV</p> <p>Since 1940, <i>PRINT</i> has been dedicated to tracking new creative and technological advances in visual communications, and to presenting these developments to our readers in a thoughtful, energetic, visually striking magazine. Comments: AF</p>	<p>10%</p>
<p><u>Exhibition Location:</u> Kathryn Schultz Gallery (Cambridge Art Association)</p> <p>http://www.cambridgeart.org/kathrynSchultzgallery.shtml</p>	<p>Ninth Annual Juried National Prize Show (Cambridge, MA)</p> <p>Comments: AF</p>	<p>20-40%*</p>

<u>Exhibition Location:</u> Phillips Gallery http://www.phillipsgalleries.net/	Invitational Juried Print Exhibition (Sanibel, Florida) Comments: AF	20-40%.
<u>Exhibition Location:</u> Ben Shahn Galleries, William Patterson University http://www.wpunj.edu/arts_culture/galleries.html	Juried Printmaking Exhibition (Wayne, NJ.) (Purchase Award for Gallery Private collection) Comments: AF	20-40%.
<u>Exhibition Location:</u> Masur Museum of Art	32 nd Annual Juried Competition (Monroe, Louisiana) Comments: AF	21%.
<u>Exhibition Location:</u> Mount Holyoke College Art Museum http://www.mtholyoke.edu/offices/artmuseum/	Annual Juried Print Exhibition (Mount Holyoke, MA) Comments: AF	20-40%.
<u>Exhibition Location:</u> ArtCentre of Plano http://www.artcentreofplano.org/	National Juried Exhibition (Plano, TX) Comments: AF	20-40%.
*According to Mark Pascale, Assistant Curator, The Art Institute of Chicago, in most cases only 20-40% of all art work is accepted in a juried/peer reviewed exhibition of prints.		

D. Research Load Information; and Amount of Time devoted to Research

Based on the P&T Guidelines, the School of Informatics will assess the description of my continuing program of research. Nevertheless, I will make a brief statement here.

Although my case for tenure is based on excellence in teaching, my commitment to research remains strong. Nevertheless, since taking on the new role of Associate Director of HCI, the demand to invest the larger part of my time on the development of the program was imperative, including: 1) the new curriculum, 2) the design of many new courses, and 3) the administrative affairs of running the program and mentoring the first group of new students.

The level of invested time and effort, beyond my teaching and administration of the HCI program, has been substantial. For example, in the last several years I have been able to invest nearly 50% of my 60-70 hour work-week to my personal research in cultural cognition, in which I have worked and published single-authored papers and co-authored papers with faculty from outside IUPUI. Additionally, I also developed new opportunities and collaborative projects in medical informatics, which includes a range of research initiatives with faculty from various departments in the IU School of Medicine. In the latter case, the investment of time was integrally related to project including the teaching and mentoring students.

As outlined in my Candidate Statement, I am greatly motivated by my plan to establish a strong research program in the HCI program. My intent is to explore and define new opportunities in HCI research that can improve people's lives, while also uncovering new knowledge in the discipline. In other words, the rich diversity of human needs provides many challenges which we can use to catalyze our advancement in the HCI discipline.

The outcome will be two-fold. First, new HCI projects of both theoretical and applied value will help to support various sectors in society, government, and medicine. Second, my HCI research will provide GRA funding, while bringing our graduate students into a setting that promotes mentoring and apprenticeships. In this setting, HCI faculty can work closely with students to strengthen their theoretical and practical understanding of the field of HCI. In sum, without a strong research program, the educational development of the HCI program will be limited.

E. Documentation of Individual Contributions to Collaborative Work

The range of my collaborative research efforts have been extensive. Of my 55 Teaching and Research publications, 13 have been authored with other faculty from the U.S. or abroad. In addition, I have work extensively on research projects with faculty from Purdue University and the IU School of Medicine, as outlined above. Please see additional letters from faculty from Purdue University and the IU School of Medicine, who discuss my collaborative efforts with them in detail.

As outlined in the P&T Guidelines, my school has the responsibility to provide a more detailed assessment of my research to date.