

July 2007

On Becoming an Information Systems Professional: Reflections on Academic Career Demands

Chelley Vician

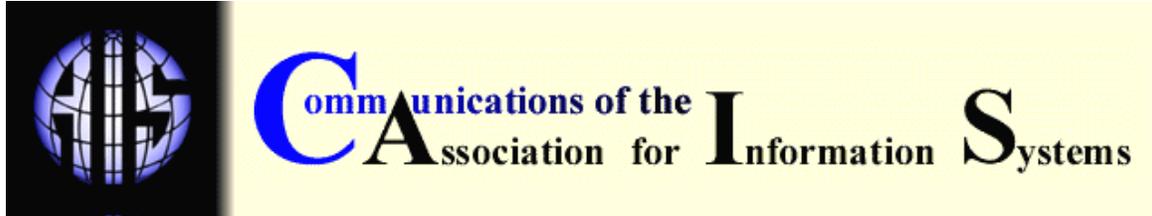
Michigan Technological University, vici9046@stthomas.edu

Follow this and additional works at: <https://aisel.aisnet.org/cais>

Recommended Citation

Vician, Chelley (2007) "On Becoming an Information Systems Professional: Reflections on Academic Career Demands," *Communications of the Association for Information Systems*: Vol. 20 , Article 9.
DOI: 10.17705/1CAIS.02009
Available at: <https://aisel.aisnet.org/cais/vol20/iss1/9>

This material is brought to you by the AIS Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in Communications of the Association for Information Systems by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.



ON BECOMING AN INFORMATION SYSTEMS PROFESSIONAL: REFLECTIONS ON ACADEMIC CAREER DEMANDS

Chelley Vician
School of Business and Economics
Michigan Technological University
cvician@mtu.edu

ABSTRACT

Information systems academics face many challenges in remaining knowledgeable about the field of information systems. This essay addresses the challenge of breadth versus specialization, based on insights gleaned from a discussion with Dr. Gary Dickson.

Keywords: academic specialization, expertise development, mentoring, doctoral programs

I. THE ANECDOTE

As a new doctoral student I experienced a key learning moment with Gary Dickson, the memory of which has not faded with time. My cohort of doctoral students was in the midst of preparing for our written and oral comprehensive exams. Several of us were walking together toward the department mailroom. We were thoroughly discussing (and dissecting) one of the papers presented at the weekly department workshop, as doctoral students are often wont to do. Outside the mailroom, we encountered Gary Dickson who joined in our lively discussion. As the conversation ended, and people drifted off to other activities, Gary made a closing comment to me. He said, "You will never be as broadly read as you are right now."

I recall being puzzled by his comment and pressed Gary for some elaboration. We then had a very brief discussion about the general demands of academic careers and the specific demands of information systems (IS) academic careers. I remember walking away from this short encounter with a "learning nugget" focused on the objective of becoming a hard-working professional who would use whatever means necessary to stay on top of new developments in our academic discipline and IS practice trends. I understood that I was poised to develop a specific set of subject knowledge expertise, but also naively believed that through my future earnest efforts would be able to maintain *both* breadth and depth of knowledge. I had understood the surface-level meaning that Gary was trying to communicate to me, but it is only through the fullness of time that I have come to understand more deeply the entire meaning of Gary's comment and the effect of his mentoring practice. This essay will explicate the learning dimensions from this mentoring experience so that others in the early stages of IS academic careers may benefit.

II. LESSONS LEARNED

IS DOCTORAL PROGRAMS: ISSUES OF BREADTH

The crucible-like experience in which IS academic careers are forged shares some characteristics with those experienced by other demanding professions (e.g., medical residents, surgical interns, law school preparation, Marine recruits, Navy Top Gun fighter pilots, etc.). During the formative experience, the candidate must learn knowledge and skills, as well as how to perform within the social and cultural environment of his/her profession [Remenyi et al. 2003]. Most IS academics must additionally know how to survive in both academic and practitioner realms. Thus, there is an additional career requirement for IS academics to know about IS-specific subject matter (e.g., information technology infrastructure such as networks and databases as well as IS planning and strategy frameworks) in order to perform teaching responsibilities and to interact with industry practitioners. IS academics need knowledge and skills to traverse this wide range of people and backgrounds, in addition to having a solid research foundation [Davis, 1999; Glass et al. 2004].

Each doctoral program has its own character and culture, while simultaneously servicing a targeted segment of the incoming graduate student market [Davis et al. 1990]. Some programs seek to select doctoral candidates who already have significant IS practical work experience and then work to mold these industry professionals into academics through research-based experiences. Other programs provide IS subject matter instruction (often through master's level coursework) and doctoral level research-based coursework to candidates with less IS industry experience. Thus, each year's cohort of incoming doctoral level candidates reflects this diversity in background and experience, as well as the breadth of diversity in doctoral program approaches.

Further, most IS doctoral programs strive to provide their graduates with a solid understanding of the academic discipline's foundations so that future research may build on the past, yet also carve new directions. Given the interdisciplinary nature of the IS field [Davis 1992, 1999; Vessey et al. 2002], this foundation is very broad. Generally speaking, most doctoral coursework attempts to expose the student to this wide variety of areas, spanning philosophy of science, research methods, computational science, management science, cognitive psychology, social sciences, organizational science, information science, artificial intelligence, design science, economics, etc. [c.f., Davis et al. 1990]. Most students, when preparing for written and oral comprehensive exams, read an extensive array of papers and are therefore exposed to a wide range of IS topics and ideas. At that early point in an academic career, one has "read broadly" in the field. The process of the comprehensive exams is a checkpoint with two major goals. The first goal is to validate that the readings have formed some knowledge foundation for the doctoral candidate. The second goal is to confirm that the doctoral candidate knows how to use this knowledge foundation with the scientific process in order to produce new knowledge. Both goals reflect the IS discipline's expectation for the breadth of knowledge preparation necessary for doctoral candidates [Davis et al. 1990; Remenyi et al. 2003; Vessey et al. 2002].

The puzzle in Gary's comment is why, at this early point in one's academic career, will this be the pinnacle of being "broadly read"? Upon reflection, three overall explanations emerge: (1) as a producer of new knowledge, the academic researcher needs to specialize in an area of interest; (2) as time and an academic career progresses, one's role in the IS field may broaden beyond solely individual research activities; and (3) as information technologies evolve and innovate, one's past *specific* information technology knowledge (e.g., how to use VSAM) may not be directly transferable due to obsolescence of the specific technology. Expansion of each of these explanations follows.

THE ACADEMIC RESEARCHER: A KNOWLEDGE SPECIALIST

A primary role for academic researchers is the production of new knowledge [Remenyi et al. 2003]. Knowledge is produced through scholarly activities such as scientific investigations, public

dissemination of work through presentations and publications, and recognition of value from academic peers. By its nature, the knowledge production process is one that requires specialization and depth. In order to be successful and recognized as a subject matter expert, the researcher must focus his/her time and efforts on narrow areas of expertise. One's reading efforts will tend to be concentrated in a particular area. It will become a full-time job to remain current in a specialized area. Although there are ways to preview recent research publications (e.g., scanning the stacks, table-of-contents services, etc.), it may be more difficult to become aware of the new knowledge developing from conferences and workshops. Thus, between the pressures of new knowledge development and one's available time to absorb what is happening currently in a discipline, specialization will occur. When one specializes in this manner, it becomes quite difficult to retain a broad perspective of the academic discipline.

THE ACADEMIC LEADER: ROLE EXPANSION

As an individual progresses through the phases of an academic career [Frost and Taylor 1996], other demands are often placed on one's time. Full participation in the academic life requires contributions to University and disciplinary academic service. These service contributions are time-consuming and will detract from one's ability to spend time on individual research and teaching activities. For most universities, service may include participation in campus-wide committees and/or Faculty Senate endeavors, departmental leadership, tenure and promotion process decision-making, advancement/fundraising/alumni relationship management, and junior colleague recruitment and mentoring. For the discipline, service may include leadership roles in journal and/or association boards, conference administration, interactions with industry practitioners, and/or discipline-wide resource development and management. The competing time demands of academic service, together with teaching obligations, will cause increasing pressure on one's available research time [Hu and Gill 2000]. As such, even if an individual possesses excellent reading comprehension skills, the available time one has to devote to reading research papers will dwindle so that it becomes unlikely for an individual to read beyond one's specialized area.

THE ACADEMIC EDUCATOR: PACE OF TECHNOLOGICAL CHANGE

The IS area is rife with tremendous change in terms of the technologies that form its infrastructure. IS academics who have significant teaching responsibilities in undergraduate or specialized master's programs face a unique and daunting challenge in preparing these students for employment in such a changing environment. Employers and students would like academic programs to reflect the current technologies (e.g., Web 2.0, XML, SOA, etc.) yet the academy rarely rewards such efforts on the part of terminally degreed academics. Trying to stay on top of the frenetically changing technological environment is itself a difficult task, let alone attempting to sustain academic research in this volatile milieu [Hu and Gill 2000].

III. REFLECTIONS ON MAINTAINING IS BREADTH

Thus, there is truth to Gary's comment on disciplinary breadth when one reflects upon an individual's ability to maintain it. Over time, one's specialization/subject matter expertise will reflect one's interests/passion and other IS interests must be given to others to pursue. An individual learns to release the expectation of maintaining disciplinary breadth **in one's self**, and learns to appreciate it in one's professional networks. An individual may be less "broadly read", but his/her initial knowledge foundation will provide "hooks" for connecting to conversations/dialogues among his/her institutional and global colleagues.

Many opportunities to reconnect with the extensive IS discipline will occur through activities undertaken with colleagues in one's professional network. The connections made by interacting with others on a conference panel, working together on association or conference administration, sharing work-in-progress papers with colleagues, maintaining connections made during conference/journal reviewing processes, and sustaining relationships with doctoral program peers

will serve as a means of connecting individual knowledge with the diversity available in the broad IS discipline. Knowledge sharing thus becomes more possible within an active professional network [Davis 1999; Vessey et al. 2002].

The individual who participates in a larger academic social network can be broadly read through the connections that he/she develops, maintains, and cherishes. Members of one's professional network may serve as a resident expert for areas where an individual is less knowledgeable. An IS professional learns to seek out this expertise when needed from his/her professional colleagues. An IS professional recognizes when he/she can be a catalyst who is able to knit together supposed disparate ideas from many experts into a new, yet coherent, whole. An IS professional rejoices in the splendid variety that exists in the world of ideas and eagerly embraces opportunities to develop new understandings from seeming contradictions. Finally, an IS professional embraces continuous learning as a personal goal --- reflecting upon what he/she has learned from every event and person encountered. Thus, although an individual is never as broadly read as he/she was during the doctoral program, a lively professional network can permit one to retain currency in this expansive IS knowledge over time.

REFERENCES

- Davis, G. B. (1992). "The Emergence of Information Systems as a Business Function and an Academic Discipline," *MISRC-WP-92-01*. Management Information Systems Research Center, University of Minnesota.
- Davis, G. B. (1999). "A Research Perspective for Information Systems and Example of Emerging Area of Research," *Information Systems Frontiers*. (1)3, pp. 195-203.
- Davis, G. B., C. R. Adams, and D. W. Straub. (1990). "The Minnesota Ph.D. Program in MIS: Underlying Philosophical Views and Operational Decisions," *MISRC-WP-90-07*. Management Information Systems Research Center, University of Minnesota.
- Frost, P. J., and M. S. Taylor. (1996). *Rhythms of Academic Life: Personal Accounts of Careers in Academia*. Thousand Oaks, CA: Sage.
- Hu, Q. and T. G. Gill. (2000). "IS Faculty Research Productivity: Influential Factors and Implications," *Information Resources Management Journal*. (13)2, pp. 15-26.
- Glass, R. L., V. Ramesh, and I. Vessey. (2004). "An Analysis of Research in Computing Disciplines," *Communications of the ACM*. (47)6, pp. 89-94.
- Remenyi, D. et al. (2003). "The Doctoral Viva: A Great Educational Experience or a Gun Fight at the OK Corral?" *Irish Journal of Management*. (24)2, pp. 105-117.
- Vessey, I., V. Ramesh, and R. L. Glass. (2002). "Research in Information Systems: An Empirical Study of Diversity in the Discipline and its Journals," *Journal of Management Information Systems*. (19)2, pp. 129-174.

ABOUT THE AUTHOR

Chelley Vician is associate professor of IS at Michigan Technological University. She is the author of more than 30 research publications and her work has appeared in journals such as *Group Decision and Negotiation*, *Journal of the Association for Information Systems*, and *Communications of the Association for Information Systems*. Her work focuses on the use of information technology to support collaboration. She is currently investigating e-learning, computer-mediated communication anxiety, and adoption of collaboration systems. Chelley serves as an associate editor for the *Communications of the Association for Information Systems* and the *e-Services Journal*, and is treasurer of the *Midwest U.S. Chapter of the Association for Information Systems*.

Copyright © 2007 by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints or via e-mail from ais@aisnet.org



Communications of the Association for Information Systems

ISSN: 1529-3181

EDITOR-IN-CHIEF

Joey F. George
Florida State University

AIS SENIOR EDITORIAL BOARD

Jane Webster Vice President Publications Queen's University	Joey F. George Editor, CAIS Florida State University	Kalle Lyytinen Editor, JAIS Case Western Reserve University
Edward A. Stohr Editor-at-Large Stevens Inst. of Technology	Blake Ives Editor, Electronic Publications University of Houston	Paul Gray Founding Editor, CAIS Claremont Graduate University

CAIS ADVISORY BOARD

Gordon Davis University of Minnesota	Ken Kraemer Univ. of Calif. at Irvine	M. Lynne Markus Bentley College	Richard Mason Southern Methodist Univ.
Jay Nunamaker University of Arizona	Henk Sol Delft University	Ralph Sprague University of Hawaii	Hugh J. Watson University of Georgia

CAIS SENIOR EDITORS

Steve Alter U. of San Francisco	Jane Fedorowicz Bentley College	Chris Holland Manchester Bus. School	Jerry Luftman Stevens Inst. of Tech.
------------------------------------	------------------------------------	---	---

CAIS EDITORIAL BOARD

Michel Avital Univ of Amsterdam	Erran Carmel American University	Fred Davis Uof Arkansas, Fayetteville	Gurpreet Dhillon Virginia Commonwealth U
Evan Duggan Univ of the West Indies	Ali Farhoomand University of Hong Kong	Robert L. Glass Computing Trends	Sy Goodman Ga. Inst. of Technology
Ake Gronlund University of Umea	Ruth Guthrie California State Univ.	Alan Hevner Univ. of South Florida	Juhani Iivari Univ. of Oulu
K.D. Joshi Washington St Univ.	Michel Kalika U. of Paris Dauphine	Jae-Nam Lee Korea University	Claudia Loebbecke University of Cologne
Paul Benjamin Lowry Brigham Young Univ.	Sal March Vanderbilt University	Don McCubbrey University of Denver	Michael Myers University of Auckland
Fred Niederman St. Louis University	Shan Ling Pan Natl. U. of Singapore	Kelley Rainer Auburn University	Paul Tallon Boston College
Thompson Teo Natl. U. of Singapore	Craig Tyrant W Washington Univ.	Chelley Vician Michigan Tech Univ.	Rolf Wigand U. Arkansas, Little Rock
Vance Wilson University of Toledo	Peter Wolcott U. of Nebraska-Omaha	Ping Zhang Syracuse University	

DEPARTMENTS

Global Diffusion of the Internet. Editors: Peter Wolcott and Sy Goodman	Information Technology and Systems. Editors: Alan Hevner and Sal March
Papers in French Editor: Michel Kalika	Information Systems and Healthcare Editor: Vance Wilson

ADMINISTRATIVE PERSONNEL

Eph McLean AIS, Executive Director Georgia State University	Chris Furner CAIS Managing Editor Florida State Univ.	Copyediting by Carlisle Publishing Services
---	---	--