

Theories at Work: Functional Characteristics of Theories That Facilitate Their Diffusion Over Time

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DISSERTATION ABSTRACT

This dissertation contributes to research on scientific communication by a comparative case study of the “careers” of eight different theories in the social sciences over a period of approximately twenty years. These theories include work on institutional isomorphism, organizational citizenship behavior, vertical dyad linkage and leader-member exchange, electronic markets and hierarchies, marketing channel structure, social influences on technology adoption and utilization, the antecedents of whistleblowing behavior, and the development of “pseudo-community” in virtual environments. The theories range from those that have received minimal levels of citation since their original publication, to several around which larger or smaller “invisible colleges” have already crystallized, to one “citation classic” that can be considered foundational to a sociological paradigm.

Using citation analysis, citation context analysis, content analysis, surveys of editorial review boards, and personal interviews with theorists, a model of functional “theory characteristics” that appear to promote theory diffusion into particular channels around various epistemic communities is presented. It is then compared to Everett Rogers’s classic typology of “innovation characteristics that promote diffusion,” and considered in the context of a variety of other ongoing research programs in diffusion, bibliometrics, and computational epistemology that study theories as part of the “commodification of justification.”

PREFACE

This dissertation project originated back in 1976 at the Syracuse University School of Information Studies as a result of my introduction as a graduate student to the then-Dean of the School, Robert S. Taylor, who sparked my interest in matters theoretical. It was also his early influence that changed my own preferred career path from “public librarian” to “information professional.” It was not until 1995, however, that I was able to return to the School as a doctoral student in order to pursue information in theory as well as in practice. The person who made that possible is my husband, Jon Martens, who was first my friend and fellow graduate assistant when the School was located on Euclid Avenue. He has supported me in every sense of the word, and this dissertation would not exist without him.

I would also like to thank Robert Benjamin, whom I met at the School upon my return as a doctoral student and who convinced me that working with theorists can be as fun and fascinating as working with theories themselves. The form that this dissertation has taken is largely due to Bob’s interest and involvement.

Two other members of my dissertation committee also deserve my deep gratitude. Rolf Wigand, my advisor until his departure in 2002 for a distinguished professorship elsewhere, is noteworthy not only for introducing me to diffusion theory and transaction cost theory, but for his continued kindness and helpfulness. I am very pleased to owe my present position at Cornell to his recommendation. Robert Heckman has been a tremendous resource to myself and to many other doctoral students throughout my time at Syracuse. His knowledge of case study methods, survey strategies, and prosocial behavior research has been instrumental in the development of this dissertation.

Abby Goodrum, my dissertation advisor, deserves a paragraph to herself. I had been diligently working at the dissertation since my proposal defense without the benefit of a bibliometric expert on my committee, when it was suggested that I should introduce myself and

my project to a new faculty member, Abby Goodrum. Within twelve minutes, she had agreed to join my committee and, within twelve months, I was able to defend the dissertation with renewed confidence that my bibliometric methods were sound. She has been an exemplary dissertation supervisor, and I am delighted to be the first in what I hope will be a long line of dissertations completed under her guidance at Syracuse.

Comments from my inside reader, Carsten Osterlund, and my outside reader, Allan Mazur of the Maxwell School, have gladly been incorporated into this dissertation. Two other faculty members also deserve special recognition: Barbara Kwasnik and the late Jeffrey Katzer, who both taught me not only specific research methods but ways of thinking critically about research methods in general. Hopefully this dissertation reflects their influence.

I had more limited contact with the following people, but their own work has been foundational to this project, and I would like to thank them here. William Alston, Kathleen M. Carley, Diana Crane, Blaise Cronin, Eugene Garfield, Everett Rogers, Henry Small, and Donald Swanson have all graciously responded to my queries on various aspects of this project, and I am most grateful. I would also like to express my appreciation for the writings of the late Derek de Solla Price (whom I had the pleasure of meeting when I was a research assistant for Project PROCEED at the Massachusetts Institute of Technology in 1978) which have formed and informed my thinking on many of these topics from the beginning.

And, finally, I would like to thank all of those whose theories have been both the source and the subject of this dissertation. As I hope to demonstrate in the pages that follow, theories are a theorist's legacy to the future, as they can continue to "work" long after the theorist cannot.