ORGANIZATIONAL DYNAMICS OF TECHNOLOGY-BASED INNOVATION: DIVERSIFYING THE RESEARCH AGENDA

IFIP – The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

> *IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.*

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

• The IFIP World Computer Congress, held every second year;
• Open conferences;
• Working conferences.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

ORGANIZATIONAL DYNAMICS OF TECHNOLOGY-BASED INNOVATION: DIVERSIFYING THE RESEARCH AGENDA

IFIP TC 8 WG 8.6 International Working Conference, June 14-16, Manchester, UK

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Organizational Dynamics of Technology-Based Innovation:
Diversifying the Research Agenda

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Foreword

I am honored to be General Chair for the 2007 (10th) Working Conference of IFIP Working Group 8.6. I had some part in helping with the formation of this working group. Participating in this conference in Manchester reflects my interest in the working group and its research domain. The conference is also something of an anniversary, since the second conference of the working group was held nearby 10 years ago. I have some reflections on the formation and early conferences of the working group, the comparative advantage of being sponsored by IFIP and TC8, the reasons for WG 8.6, and the important contributions of the working group and this conference.

Reflections on the Formation of WG 8.6 and Early Conferences

I was Chair of the IFIP (International Federation for Information Processing) Technical Committee 8 (Information Systems) for two terms from 1990 through 1995. It was in 1993 when the proposal was made to form a new working group on Diffusion and Adoption of Information Technology. I supported the proposal and remember well how active and persuasive Priscilla Fowler and Linda Levine were in making the case for establishing a new working group.

I participated in the TC8 conference to ascertain the level of interest in the proposed working group and set in motion its organization. The conference was held in Pittsburgh, Pennsylvania, in October of 1993. The proceedings were published with Linda Levine as editor, *Diffusion, Transfer and Implementation of Information Technology* (North Holland, 1994). The working group was formally approved in 1994. Priscilla Fowler was appointed the first Chair of the working group with Karlheinz Kautz as Vice Chair and Chris Sauer as Secretary.

The first WG 8.6 Working Conference was held October 14-17, 1995, at Leang-kollen, Oslo, Norway. Unfortunately, I was not there. However, I attended the second WG 8.6 working conference at the Low Wood Hotel, Ambleside, Lake Windermere (near Manchester in the UK), June 25-27, 1997. The theme of the conference was "Facilitating Technology Transfer through Partnership: Learning from Practice and Research." The program chairs were Tom McMaster, University of Salford, and David Wastell, University of Nottingham.

Reflection: The Comparative Advantage of IFIP and WG 8.6

There are many organizations we can join and many conferences that we can attend. Why are we here at a conference sponsored by a working group of a technical committee

of an international society? IFIP provides an excellent organizational framework for international cooperation. It is essentially a society of national computing societies with broad participation from countries with strong interest in information processing. Since the field of computing and information processing is large and diverse, IFIP has established technical committees for different areas of interest. IFIP TC8 is on the topic of information systems. Although the technical committee may sponsor conferences, most of its work is conducted by working groups on major topics within the field of information systems. WG 8.6 focuses on diffusion and adoption of information technology. It fits within an international organization free from national or region bias, and it is hosted within a technical committee on information systems that defines the general domain of interest. There is an infrastructure that provides an umbrella for working group activities and provides for the publication and sales of conference proceedings.

Reflection: The Reason for WG 8.6: Transfer and Diffusion of Information Technology

Any practitioner or academic researcher in the field of information technology systems comes face to face with the fact that technologies and systems with significant advantages are not adopted or face strong resistance. Before WG 8.6 was formed, there was already a body of research on adoption of innovations. Sometimes this research seemed to explain issues of information systems adoption but it did not appear to me and to others to be robust enough or comprehensive enough to deal with many of the problems we face with IT. In other words, we have some reasonably complex and somewhat unique situations, problems, and issues along with unique practitioner concerns. There is a need for academics in information systems to understand adoption and diffusion of information and communications technologies in organizations, the diffusion of system innovations, and the diffusion of software engineering innovations in building software and applications. There is also a need to foster dialogue between academics and practitioners and transfer research results to practice.

With over 10 years of research and conferences behind us, haven't the problems been solved? Unfortunately, technological innovations and diffusion continues to be difficult. The failure rate for new technologies and new systems remains high. In other words, there is still an important, viable mission for WG 8.6 in exploring issues of why some innovation efforts are successful and others fail. There is a need to continue to explore theoretical perspectives, methodologies, and organization issues.

Reflection: The Nature of WG 8.6 and the Value Added by this Conference

I started my academic career as a traditional positivist. It was in Manchester in 1984 at a conference on information systems research sponsored by WG 8.2 (Information Systems and Organizations) that I had an epiphany. My eye-opening experience did not convert me to a complete post-positivist and cause me to reject positivist research. Rather, it expanded my thinking to encompass a much broader range of research paradigms. I applied some of them in my own research.

WG 8.2 might have been organized with tight boundaries that excluded different research paradigms; it didn't happen that way. WG 8.6 was organized as a home for a diverse research agenda with openness for different research paradigms. This working conference continues the tradition. On behalf of us all, I thank David Wastell and Tom McMaster for the program that continues the spirit of open inquiry that has characterized WG 8.6. I second their thanks to those who have made the conference possible.

As I reviewed the papers in the proceedings, I was struck by the diversity. There were papers on topics I understand well and there were papers on topics that I had not thought of before or not understood very well. For example, for me, the six papers using actor network theory will clarify and expand my thinking relative to ANT. There are papers that advocate different approaches to research and open up a dialogue. An interesting innovation by the program chairs is the publication of 14 position papers that present interesting ideas but don't fit the traditional model of conference papers. In other words, the collection of papers in this volume can open minds and expand understanding.

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Preface

Welcome to the 10th Working Conference of IFIP WG 8.6 on the adoption and diffusion of information systems and technologies, and welcome to Manchester. In recent years, the frequency of these meetings has more or less stabilized into an annual event, but this has not always been so. The first four "official" 8.6 meetings[1] were held in Oslo, Norway (October 1995), Ambleside, UK (June 1997), Helsinki, Finland (December 1999), and Banff, Canada (April 2001). Gaps between gatherings of 20 to 30 months may seem a questionable start for an embryonic research group, but we have now stabilized inoto annual meetings with Sydney (2002), Copenhagen (2003), Leixlip (2004), Atlanta (2005), Galway (2006), and now Manchester (2007). The next meeting is planned for Madrid in 2008. The engine that originally sputtered into life is now purring and ticking over smoothly, thanks to all of those whose persistence, endeavors, and energies have made it so.

Events such as these cannot be staged without considerable help and advice from many others, and this is no less true of this particular meeting. We would, therefore, like to take this opportunity to acknowledge and thank those who have helped make this event possible.

Thanks to Yacine Rezgui, Director of the University of Salford's Informatics Research Institute (IRIS), for engaging IRIS as the principal sponsor and host of this event. Thanks are also due to Salford City Council in the guise of Mike Willetts (Head of ICT Services) for once again providing financial support (this is the third IFIP conference hosted in Manchester which the Council has sponsored), and to Bob Newbold of ISACA (Information Systems Auditing and Control Association) for generously sponsoring the conference reception. We would also like to express our gratitude to the various senior officers of the Working Group for helping bring this event to fruition, in particular Karlheinz Kautz, and also Linda Levine who has always been on hand with practical advice and invaluable feedback. Jan DeGross has again done a fine job in cutting and polishing the rough-hewn originals into a rather handsome published collection of papers.

We are also deeply indebted to members of the program committee. Our policy was to invite a set of people reflecting the international character of the Working Group as well as its aspiration to undertake relevant research, to bridge the much-bruited research-practice fissure. The committee is listed below. It reflects the constituency we sought,

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[1]There had been a precursory IFIP Technical Committee 8 (TC8) meeting on the diffusion of information technologies held at Seven Springs, Pennsylvania, in October 1993. From this, WG 8.6 was formed and it was officially established as an IFIP group in 1994.

with both a broad international profile and a prominent representation of practitioners. We are particularly grateful to the individual members for their help in the reviewing and selection process, getting their comments back to us against rather tight deadlines.

The tireless work and endless patience of Elaine Ferneley is also acknowledged as the local organizing Chair. She kept our wandering minds focused on the task in hand and handled everything with aplomb: setting up the web site, arranging the all-important entertainment and victuals, as well as the technical facilities and the splendid venue. Her involvement in shaping the program was also much appreciated. Finally we would like to thank Mark Sanders and Kevin Blow at Salford University for their help in designing and running the conference web site, and to Nathalie Audren-Howarth of Salford University for fielding queries and performing other invaluable administrative tasks.

Tom McMaster and David Wastell
Program Co-Chairs, IFIP WG8.6, Manchester

CONFERENCE COMMITTEE

General Chair
Gordon B. Davis
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Program Co-chairs
Tom McMaster
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Program Committee