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Co-creating for Context in the Transfer and Diffusion of IT

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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. A federation for societies working in information processing, IFIP's aim is two-fold: to support information processing in the countries of its members and to encourage technology transfer to developing nations. As its mission statement clearly states:

> *IFIP is the global non-profit federation of societies of ICT professionals that aims at achieving a worldwide professional and socially responsible development and application of information and communication technologies.*

IFIP is a non-profit-making organization, run almost solely by 2500 volunteers. It operates through a number of technical committees and working groups, which organize events and publications. IFIP's events range from large international open conferences to working conferences and local seminars.

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 generally smaller and occasionally by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is also 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.

IFIP distinguishes three types of institutional membership: Country Representative Members, Members at Large, and Associate Members. The type of organization that can apply for membership is a wide variety and includes national or international societies of individual computer scientists/ICT professionals, associations or federations of such societies, government institutions/government related organizations, national or international research institutes or consortia, universities, academies of sciences, companies, national or international associations or federations of companies.

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Preface

The adoption and diffusion of information technology has passed through decades of developments and major shifts. Recent world events have brought particular emphasis on the inherent and increasing diversity, complexity, and uncertainty of context(s) influencing the diffusion of emerging IT. This challenges our academic community to acknowledge and better address such context in our methods, theories, and practices of research. It further welcomes avenues of co-creation in research to better unpack and understand context, by bringing together a diversity of different expertise, stakeholders, and forms of data, information, and knowledge.

Not only are IT artefacts becoming more complex, so too are the environments which they inhabit (e.g. smart homes, smart cities, Industry 4.0, Agriculture 4.0, etc.) and the contexts influencing their use (e.g. sustainable development, global pandemics, disruption to supply chains, etc.). Key interrelated challenges requiring understanding and solutions include technological advances (e.g. IoT, AI, and blockchain) enabling increasing diversity, volume, and fluidity of data flowing amongst actors (technical and non-technical) to create value; public sentiment and political policies shifting priorities of research; IT enabled servitization delivering new value, markets, and market influences; deepening IT penetration into various life domains (from governing cities to transport, housing, and farming); and innovation ecosystems that enrich, enlarge, and intersect with each other (e.g. platform-based ecosystems, new transport modalities such as driverless cars, etc.).

This book presents the post-proceedings of this year's International Federation of Information Processing Working Group 8.6 (IFIP WG 8.6) Conference on Transfer and Diffusion of IT (TDIT 2022). IFIP WG 8.6 focuses on the diffusion, adoption, and implementation of information and communication technologies. The conference was held in Maynooth, Ireland, and was hosted by the Innovation Value Institute (IVI) at Maynooth University. We are grateful to IVI for their commitment and effort in producing such a well-organized and memorable conference.

The theme of the conference, "Co-creating for Context in Prospective Transfer and Diffusion of IT", acknowledged the importance, richness, diversity, uncertainty, and complexity of today's IT adoption and diffusion context. TDIT 2022 welcomed research specifically tackling the conference theme. For example, co-creating with practice in capturing what is happening on the ground and at the precipice of digital transformation, harnessing the collective intelligence of citizens in devising and/or offering solutions, or converging interdisciplinary expertise to gain new or greater insight. This is in addition to IFIP WG 8.6 longstanding themes on IT adoption, implementation, and use. In total, 60 submissions were received after a call for papers. After initial screening, all papers were subjected to a two-way anonymous reviewing process with at least two expert reviews per paper. We followed a constructive reviewing process to develop papers and direct authors to other types of submissions when the criteria of full papers were not sufficiently met. This resulted in the acceptance

of 19 full-length papers and ten short papers to be included in the proceedings and other papers to be presented at the conference only to benefit from scholarly development. The acceptance rate, therefore, was 48%. Authors of selected papers are affiliated to institutions in five continents, which is a good reflection of IFIP WG 8.6 membership. To serve authors, in this conference and due to COVID-19 conditions and world contingencies, we developed a new model of open submission and agile reviewing of papers on a rolling basis so that authors could submit as travel opened up in their countries and as they saw possible within their existing challenges. We further developed a hybrid model for the conference itself, with approximately a third of registered authors attending, participating, and presenting their work remotely. We are indebted to the Program Committee members, for their hard work in reviewing and assessing submissions on a rolling basis and in a timely manner which made this event possible, and to the local organizers and presenting authors for harmonizing the online and in-person presentations.

This book is organized into five parts to reflect the themes of the conference and papers. Part I includes papers that examine different IS concepts and theories that could provide the basis for future research. Part II includes papers that address the theme of the conference on co-creation in design, implementation, and use. Part III presents papers that discuss IS use and impact in different contexts. Part IIII includes papers that examine the recent emergence and interest in blockchain and cryptocurrency technologies in different contexts. The final part includes papers that investigate the use and impact of social media in different domains.

Events like these cannot be staged without considerable help and advice from others. Our meeting would not have been possible without the hard work of Niall Connolly leading the local organizing team and Carol Connolly from IVI for her careful assistance and support. A special thanks must also be given to the IFIP WG 8.6 members and authors for their resilience and rising to the different challenges of making this conference a success despite the global circumstances. We hope that our meeting and the collection of papers included in these proceedings progress our understanding of the diverse, complex, and uncertain context of the adoption and diffusion of technology and inspire further research.

June 2022   Amany Elbanna
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