Foreword

This book and its companion volume, *ICTs for Global Development and Sustainability: Practice and Applications*, are welcome initiatives of the Development Informatics (DI) research program at Monash University’s South Africa campus and of IDIA – the International Development Informatics Association.

Monash University is Australia’s largest institution of higher education. Based in Melbourne, it has long worked to become a truly international university. In addition to its six Australian campuses, Monash has campuses in Kuala Lumpur and Johannesburg, and a major study centre in Prato (Italy). It has strong strategic partnerships elsewhere in the world, notably with the prestigious Indian Institute of Technology Bombay (IITB).

In 2005 Professor Ed Wilson, then Associate Dean, Development in the Monash Faculty of Information Technology (and formerly founding Head of the School of Information Technology at Monash South Africa) took the initiative of bringing together IT academics from Monash Australia and South Africa, and from IITB, to think together about how far IITB’s research approach in DI might be applicable to Africa. This collaboration occurred at an early stage in the relationship building between Monash and IITB which has culminated in the IITB-Monash Research Academy1.

At that time the DI research program at IITB was centred in the Development Informatics Laboratory (DIL) of the Kanwal Rekhi School of IT. IITB is situated on a richly-treed campus in suburban Mumbai, alongside the large and serene Powai lake. It was here that the journey of exploration into the potentialities of DI for Monash South Africa began. The Monash research team was hosted by the inspirational founder of DIL, Prof. Krithi Ramamritham2, (now Dean of R&D), his staff and students. There was a day-long agenda of presentations, discussions and technical demonstrations, including a presentation by the Monash team.

The academics in the Monash contingent were Dr Judy Backhouse (then Head of the School of IT at Monash South Africa), Dr Jacques Steyn (current Head of School) and myself (as immediate past Associate Dean, Research in the Monash Faculty of IT, and also as founding Chair of the Monash Centre for Community Networking Research).

From the quiet lakeside campus, and the streets of suburban Powai – crowded, bustling and brimming with life in uniquely Indian style – we set out for the back blocks of Maharashtra State in a lovingly beaded and decorated four-wheel drive, which routinely startled and delighted us by blaring a lively Indian tune as its reverse-gear warning signal. The notion of DI as a major focus for research and teaching at Monash South Africa was shaped in hours of discussion as the vehicle skimmed and bumped over the rural roads and tracks, punctuated by stops to photograph wayside temples and pale-coloured oxen with painted horns.

The purpose of the road trip was to visit some typical village based development projects with which IITB DI researchers were collaborating. Particular foci of the journey were the Farm Science Centre
Krishi Vigyan Kendra at Shaidanagar, Baramati, central node of a multilingual advice network comprising both inputs from expert agronomists and peer-to-peer learning among farmers, and the Vigyan Ashram at Pabal where ICTs are part of a scheme to help the poorest people, especially young people, gain skills to set up micro-businesses within the rural economy.

The visit to India, and steady encouragement from Professor Ron Weber (Dean of the Faculty of IT) and Professor Tyrone Pretorius (Pro Vice-Chancellor, Monash South Africa) helped make Development Informatics at Monash South Africa a reality. Soon after the DI program commenced at Monash, including regular seminars for a wide range of stakeholders, IDIA (the International Development Informatics Association) was founded, led by Dr Jacques Steyn. Melbourne-based Associate Professor Graeme Johanson, Director of Monash’s Centre for Community Networking Research, has been a tireless mentor for Jacques Steyn’s program and also a pillar of IDIA. As mentioned, this volume on DI theory, and its companion volume on practice, result from the activities of IDIA. Dr Larry Stillman, (also Melbourne based, and Senior Research Fellow of the Centre) has likewise contributed strongly both to the Monash South Africa DI program and IDIA, especially through his active collaboration in the Digital Doorway initiative of the Meraka Institute of the South African government’s Department of Science and Technology and the South African Council for Scientific and Industrial Research (CSIR).

There is a number of ways in which this book resonates with the learnings that the Monash researchers brought back from India.

Our visit to Mumbai and the rural villages of Maharashtra State was an exciting physical journey certainly, but it was also a journey into theory – like this book. The conceptual and philosophical maps that we Monash researchers brought to the exploration were, inevitably, limited – based on our own particular personal and disciplinary backgrounds, reading and previous research. Immersion – for however short a time – in the ideas and practical projects of our Indian colleagues both added to our knowledge, and helped us upgrade the organisation of that knowledge. We acquired new ideas and were stimulated to refine concepts and discover new conceptual links. This is the kind of stimulus to knowledge content and mapping that these two volumes, and not least this volume on theory, are also intended to provide.

The journey to India highlighted other ideas to which this book is faithful. Prof. Krithi Ramamritham explained to us that KReSIT, the school of IT to which the Development Informatics Laboratory belonged, dated back to 1998 when IITB identified the need to create IT R&D leaders trained ‘to cut across their compartmentalized education and to combine technology expertise with domain knowledge to produce innovative solutions to real world problems’.

Himself an internationally recognised computer scientist, Prof. Ramamritham became convinced that for real world answers a genuinely interdisciplinary approach is required, where the social sciences and humanities work in synergy with the natural sciences. As a devoted Hindu, he is also keenly aware of the influence of tradition and the numinous in the daily lives of people. Consistent with that view, this book – chapter by chapter – reveals a convocation of researchers from a wide variety of backgrounds working in a truly interdisciplinary style.

Like other DI researchers, the chapter authors of this book might well have had an easier life staying within the comfort zones of their home disciplines, and working within less complex monodisciplinary research cultures. But this is not the way of DI researchers. They are individuals motivated to do something – however limited or humble – to lessen the destructive ‘divides’ in society – local, regional and global – that bring suffering to so many people, and also exacerbate the environmental degradation of the planet. DI researchers see in information and communication technologies a resource of unprecedented power to uplift the human condition.
The chapters of this book individually and collectively do what all good theorising does – they seek to identify and delineate – in whatever context – key factors, and the relationships among those factors, which if sufficiently understood can aid explanation or prediction, and thus serve as a basis for future thought or action. The theorising in the book proceeds at many levels, from micro to macro. At the IITB Development Informatics Laboratory such multi-level theorising was also very much in evidence.

In the remainder of this Foreword I would like to focus on perhaps the highest level of theory that implicitly or explicitly permeates programs like the one we witnessed in India, and every chapter in this book: namely the ethic of DI. DI theorists and practitioners are all too well aware that technology, information and knowledge can be used for good or harm. To give just a few examples:

- Polio and other vaccines have helped sufferers globally. Yet weapons resulting from biotechnology are one of humankind’s worst nightmares.
- Picasso’s painting ‘Guernica’ memorialises the terror when aeroplanes were unveiled as technologies of massacre against entire civilian populations. Yet cognate advances in aeronautical engineering gave the world safe, affordable, mass inter-continental transport and helicopter rescue.
- The Internet has seemingly endless possibilities for human benefit, yet among the evils propagated through this medium are: child pornography, sexual violence, incitement to murder or oppression in the guise of religion or politics, hate sites, ‘how to’ crime sites, hacking and e-sabotage, e-scams and frauds, unregulated gambling.

Technology, information and knowledge can be used to develop and illumine lives, or to degrade and extinguish lives – and have been throughout history. Sometimes harm is accidental – an unforeseen or unwanted side-effect of some seemingly worthy application of technology – but too often it is deliberate. A recurrent theme in DI literature, including several chapters of this book, concerns DI initiatives that go wrong. Like the Hippocratic Oath in medicine, DI is a field where a credo concerning good versus harm is essential. Such a credo constitutes the axiomatic level of theory from which all the conceptual modeling, hypothesis building and testing, hermeneutic analysis and critique, or other modes of theorising in the field proceed. At IITB this reality was acknowledged in the very name of the Development Informatics Laboratory, whose acronym is DIL. In Hindi the word ‘dil’ means heart – and the message is that DI is a field where social justice and compassion are not optional, they are fundamental.

This axiomatic theory, the truth that must be held self-evident, for DI has at its core – I suggest – the concept of the good society.

What is a good society? It is most easily visualised by considering its opposite, the evil society. The evil society is the Hobbesian ‘Bellum omnium contra omnes’ – ‘war of all against all’. The notion of ‘mutual obligation’ or ‘fair go’ plays no role in this condition of society. Across place and time, gradations of the evil society all too often seem the default condition of the social system. Upliftment of the human condition over time is – sadly – far from inevitable. In the words of the social theorist Anthony Giddens, ‘“History” is not on our side, has no teleology, and supplies us with no guarantees’.

In contrast the good society recognises the legitimacy of self-interest, but always balanced by mutual obligation (‘social contract’, ‘utopian realism’). Expressed in terms of Giddens’ structuration theory, the patternings or institutions of society are shaped by the actions, small or large, of people in their daily lives. To the extent that a good society is one which is based on the enactment of mutual obligation this reality is incrementally and continuously constructed and re-constructed by the daily actions of its people. The good society embeds in its institutions expectations of behaviours that respect the rights of
others as equal to one’s own, a principle affirmed in both religious and secular visions of social justice.

Krithi Ramamrithan argued that the emphasis of DIL should be on ‘allowing people to do what they do, where they do it, only better – enhanced by technology’\(^8\). By this, needless to say, he meant the good, mutually supportive – or at least unharful – things that people do.

The concept of the good society was given renewed interpretation and present-day currency through the acclaimed book of that name written by John Kenneth Galbraith\(^9\). In it he advocated a ‘humane agenda’ containing the fundamental elements of economic growth; universal access to education; and protection for the young, old, disabled, and the environment.

DI theory affirms the value of people, individually and collectively, enacting mutual obligation at the local, regional and global levels, in both the immediate and longer terms. ICTs, being technologies through which people can share information, learn, create knowledge, foster collective memory, and renew culture are seen as potentially powerful agencies for the attainment of the good society.

It was for me a privilege to participate in the establishment of the DI program at Monash South Africa, and the founding of IDIA. I express my appreciation for the invitation to write a Foreword for this thought provoking book, and warmly congratulate the editors, and the DI researchers from across the world who contributed to its content. I commend each chapter as a prism through which we can better envision DI’s contribution to the good society.

Don Schauder

ENDNOTES

1 http://www.iitbmonash.org/
2 http://www.cse.iitb.ac.in/~krithi/2pagebio.html
4 These thoughts were initially explored in Schauder, D. (2006) Good versus Evil: The Internet and Society, address to the IEEE Social Implications of Technology inaugural seminar, Melbourne, 18 Jul.
8 Ramamritham, K. loc. cit.

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