## ICT4D

Information and Communication Technology for Development

General Editor TIM UNWIN



## Contents

Pr	eface and acknowledgements	page vi
Ac	cronyms and glossary	vii
Contributors		xiii
1	Introduction Tim Unwin	1
	Aims and objectives	2
	Organisation and structure	3
Part 1: Contextual framework		
2	Development agendas and the place of ICTs  Tim Unwin	7
	Development agendas  Case study: 'Across the wires th' electric message came,	7
	"He is no better; he is much the same" (Richard Manning)	12
	Information and knowledge societies	19
	Technological interests and social change	30
3	Information and communication in development practices <i>Tim Unwin</i>	39
	Information and communication in development	40
	Information in development practice	53
	Effective communication in development practice	61
	Access, understanding and relevance	69
4	The technologies: identifying appropriate solutions for	
	development needs Tim Unwin	76
	ICTs: a conceptual framework	77
	The capture and storage of information	82
	Case study: The Greenstone Digital Library Software	
	(Ian H. Witten and David Bainbridge)	84
	Case study: The internet of things (Marco Zennaro)	88
	The physical infrastructure  Case study: Radio for education (David Hollow)	92 102
	User interfaces and information sharing	102
	coor meetingood and information charing	104

	Individuals and communities: debates over software and content Conclusions	114 119
5	ICT4D implementation: policies and partnerships Tim Unwin	125
	Global ICT4D initiatives  Case study: The World Summit on the Information Society –	126
	a reflection (Mohamed Abida)	142
	Case study: Telecentre 2.0. What's next? Almost anything (Mark Surman)	146
	ICT4D national policies and strategies	150
	Case study: ICT and education strategies in the Pacific (Michael Trucano)	156
	Multi-stakeholder partnerships and the implementation of	159
	ICT4D initiatives Case study: LifeLines India (Melissa Gabriel and Adrian Godfrey) Delivering effective ICT4D partnerships	162 170
• •		177
6	ICTs, enterprise and development	177
	Michael L. Best and Charles Kenny	
	ICT industries and ICT use ICTs and economic development	177 179
	Case study: Telecoms in post-conflict Afghanistan and Liberia	175
	(Michael L. Best and Charles Kenny)	182
	The scale of ICT use in the developing world	185
	The macroeconomic impact of use	188
	The microeconomic impact of use	189
	Success factors for ICT use	196
	Case study: Chilean ICT policies and micro-entrepreneurs	1.00
	(Dorothea Kleine)	198
7	ICT in education: catalyst for development  Michelle Selinger	206
	Introduction	206
	Education in developing countries	208
	Developing and implementing new educational models	217
	Case study: ICT and education in Rwanda (Alphonse	
	Uworwabayeho, Jolly Rubagiza, Edmond Were, and Rosamund	
	Sutherland)	228
	Case study: EU-China GBEP - an ICT-supported system for	
	school-based professional development (Bernadette Robinson)	230
	External involvement in enhancing educational delivery	238
	Conclusions	242

8	E-health: information and communication technologies	
	for health	249
	S. Yunkap Kwankam, Ariel Pablos-Mendez and Misha Kay	
	Introduction	249
	Definitions of e-health	251
	Historical development of e-health	252
	The contemporary e-health landscape	254
	Assessing the impact of e-health	271
	Limitations of e-health	274
	The future of e-health	275
	Conclusions	276
9	E-government and e-governance James Guida and Martin Crow	283
	Introduction	283
	E-government: its evolution and its challenges	284
	The technologies	289
	Case study: Local e-government services: Takalar, Indonesia	
	(Martin Crow)	294
	E-governance as management of IT implementations in government E-governance as transformation of the relationship of	296
	government to citizens in an information society	306
	Key issues in formulating a development- and reform-based	
	e-governance strategy	310
	Conclusions	316
10	Information and communication technologies for rural	
	development	321
	Bob Day and Peter Greenwood	
	Introduction	321
	Stakeholder issues	323
	ICTs for rural development: beginnings	327
	Emerging possibilities	335
	Case study: The hole in the wall, or minimally invasive	
	education (Sugata Mitra)	340
	ICT4RD: some future scenarios	346
	ICTs, knowledge management and a new shared vision for rural	
	development	351
11	Conclusions	360
	Tim Unwin	
	ICTs and development practices	360
	Principles for effective ICT4D implementation	363
	Towards a more effective global ICT4D agenda	369
	Case study: Empowering youth in Jenin (Jonatan Stanczak,	
	Ziad El-Khatib and Mohammad Moawia)	372
In	dex	376
1111	uua.	/ 17