HUMAN PERSPECTIVES
IN THE
INTERNET SOCIETY
CULTURE, PSYCHOLOGY AND GENDER
HUMAN PERSPECTIVES

IN THE

INTERNET SOCIETY

CULTURE, PSYCHOLOGY AND GENDER

EDITORS

K. Morgan
University of Bergen, Norway

C.A. Brebbia
Wessex Institute of Technology, UK

J. Sanchez
University of Cadiz, Spain

A. Voiskounsky
Moscow State University, Russia
PREFACE

Over the past 30 years Information and Communications Technology (ICT) has become a pervasive part of all aspects of modern life. Even the most superficial observation shows the impact of this technology being felt throughout industry, commerce, education, entertainment and society. Much literature and effort has been devoted to documenting and understanding the technical aspects of these developments whilst in contrast relatively less attention has been given to their human consequences.

This book attempts to redress some of this imbalance by bringing together leading authorities from around the world to present the current state of research and understanding into the social, psychological and cultural impact of the new technologies. Contributions cover the whole range of perspectives from changes in social norms through to an examination of the complex issues involved with gender representation within the new communication mediums. This book will be of value both to newcomers to this area and also to established authorities interested in the current state of this important domain.

The Editors
2004
Contents

Section 1: Understanding online behaviour

Predicting and understanding student attitudes and behaviour in e-learning
K. Morgan.................................................................3

The ontology of internet user interactions
J. Shires .................................................................11

The neuropsychology of Human Computer Interaction (HCI)
M. Brosnan ............................................................21

Current problems of moral research and education in the IT environment
A. Voiskounsky..........................................................33

Why do people publish weblogs? An online survey of weblog authors in Japan
A. Miura & K. Yamashita........................................43

Interacting with virtual lecturers: outcomes from introducing streamed video into the classroom
C. D. Smith, A. M. Morley, H. E. Whiteley, L. Hodgson & K. Williams........51

Differentiating computer-related addictions and high engagement
J. P. Charlton & I. D. W. Danforth..............................59

Personal competences and social structure: information management in business networks
J. Aderhold & M. Meyer............................................69
Section 2: Personality and computer attitudes

Psychological effects of work with a helmet-mounted display
C. Pfendler & H. Widdel ................................................................. 83

Acceptance of an implantable data security chip to facilitate a cashless society
A. M. Young ...................................................................................... 93

Section 3: Cyber interactions

Online audits and energy using behavior
K. Tiedemann .................................................................................... 105

Cohesion in online groups
P. Rogers & M. Lea ........................................................................ 115

Section 4: New interaction methods

Do short texts imply small thoughts? An investigation of the semantic networks associated with restricted and non-restricted text production
G. B. Svendsen, J. A. K. Johnsen & B. Evjemo ...................................... 127

ICT — the solution of communication hurdles in the modern family?
E. Mauritzson-Sandberg & T. Nordmark .............................................. 135

Section 5: Applied psychological uses for computers

An expert system supporting diagnosis in clinical psychology
R. Spiegel & Y. P. Nenh ................................................................. 145

Skills in computer use, self-efficacy and self-concept
E. Makri-Botsari, F. Paraskeva, E. Koumbias, A. Dendaki
& P. Panaikas .................................................................................. 155

Section 6: Influencing gender roles

Gender issues in the career development of computer science staff
K. Adeboye, V. Flynn & K. Darlington .............................................. 165
"I don't understand computer programming, because I'm a woman!": negotiating gendered positions in a Norwegian discourse of computing
H. Corneliussen ................................................................................................173

The role of gender in the outcome of ICT adoption – can nurses be technologists?
F. Bacon & S. Stocking.................................................................183

An outreach venture: bringing computer literacy to rural women in Malaysia
H. Awang & M. Jaffar .................................................................191

Mentoring computer science undergraduates
J. McGrath Cohoon, M. Gonsoulin & J. Layman.................................199

Gender in information technology: review of a mentoring initiative
C. Armaroli, E. Costantini, F. Guerzoni, C. Malacarne & O. Mich........209

Section 7: Gender and computer behaviour

Gender impact assessment in the Department of Digital Media of Furtwangen University of Applied Sciences, Germany: design of the study and first empirical results
S. Selke, K. Töpsch, P. Pfeiffer, K. Kugele & I. Munder...........................219

Fair play: gender, digital gaming and educational disadvantage
J. Jenson & S. de Castell ........................................................................227

Gender, language and computer-mediated communication
J. Miller & A. Durndell........................................................................235

Gender demands on e-learning
R. Meßmer & S. Schmitz.......................................................................245

Instructional technology innovation as transformational learning: female faculty’s narratives of experience
K. Campbell.........................................................................................255

Comparative gender differences in faculty job satisfaction at higher education: Taiwan and China
L. C. Tu, P. Bernard, M. Plaisent & L. Maguiraga.................................265
Section 8: Gender stereotypes

Paradoxes in the impact of the Internet on women
J. Morahan-Martin

Gender and IT: do stereotypes persist?
C. Lang & T. Hede

Section 9: Cyber society norms and values

Understanding cultural and national identity in teleworking and electronic communication
Z. Mustafa

Handling paradoxes and uncertainty in virtual networks
J. Aderhold

Relationship of organizational culture with use intensity of the Internet and sales performance: an international empirical investigation
D. A. Karayanni

Architecture between applicational and virtual space
I. Juras

Section 10: Threats and challenges to diversity

The role of economic growth in coastal culture: a case-study in Qeshm Island, Persian Gulf
M. Mohebbi & A. S. Mahmoodi

Norms and values in contemporary society: an application to the field of sustainable transportation
J. A. Prades, R. Belzile, M. Glaus, R. Hausler, J.-P. Revéret & J. M. Rubio-Ardanaz

A study of hospital based social workers in the UK: the importance of verbal communication in this community
J. Harrison, M. Hepworth & P. de Chazal

ActKM: variety from a complexity perspective
S. Callahan & P. Milne
Sharing places, enhancing spaces: an investigation into the effects of mobile networking technologies on physical communities
N. Bresnihan & L. Doyle ..................................................................................387

Impediments to development in the border provinces of Iran
H. Shayan........................................................................................................397

Section 11: Advertising with an intercultural perspective

Advertising to multi-cultural audiences: promoting energy efficiency in South Africa
K. Tiedemann....................................................................................................407

The impact of the homogeneous global advertising on multicultural reality
L. Chilarescu ....................................................................................................417

Section 12: New learning technologies and paradigms

Current issues in new learning
J. M. Spector....................................................................................................429

Burnout and emotional intelligence in Greek employees
E. K. Kondylis, S. Pandelis, M. E. Sfakianakis & D. Prokopiou .......................441

A dynamic web educational assessment system
S. Y. Wu & Z. He...............................................................................................449

Assessment: the Trojan horse of blended learning
R. Harlev...........................................................................................................459

Computer-assisted vs. traditional homework: results of a pilot research project
L. Hassler, L. Dennis, H. Ng, C. Johnson, D. Ossont, G. Ogawa & C. Nahmias .............................................................................................................467

Factors influencing the effectiveness of a web-based learning environment: An assessment from the Malaysia perspective
W.-C. Poon, K. L.-T. Low & D. G.-F. Yong..........................................................479

Oracle 9iAS Portal as a platform for Geographic Information Science
distance and flexible learning at the University of the South Pacific
P. Sharma, M. Govorov, Y. Khmelevsky & S. Dhanjal......................................489
Data-driven modelling of learner’s cognitive style in educational hypermedia
S. Fragos, T. Mitchell, S. Chen & L. K. Stergioulas ........................................... 501

Section 13: E-business

Concepts, methods, standards and technologies to promote e-business interoperability in a large enterprise
T. Vitvar ........................................................................................................... 513

E-business security in international perspective
N. L. Karmakar .................................................................................................. 523

The impact of the World Wide Web on South African businesses
A. M. Singh ....................................................................................................... 535

Multi-analyses electronic payment system
M. Madhoushi & E. Mohebi ............................................................................. 545

Interoperable and flexible digital signatures for e-government and e-commerce
H. Baier & M. Ruppert ..................................................................................... 557

Author Index .................................................................................................... 567