Preface

In our ‘knowledge society’, the success of social institutions, such as industry, higher education, healthcare and law, to name a few, is largely dependent on a complex network of social skills and norms which inform and create competent communication and social interactions. Communication and interactions are increasingly mediated by technologies and machines that facilitate, indeed enable, dialogue in local and global contexts. This book examines how we communicate and interact in a technically-mediated, connected and inter-connected world. Although our examination often stems from disciplinary-specific perspectives, the plurality of experiences presented in this book collectively reveals the trans-disciplinary impact technologies hold in shaping, influencing and creating communication. This book shows that what we consider ‘normal’ regarding the use of computer-mediated communication (CMC), whether in classrooms or boardrooms, varies widely. The social norms, attitudes and expectations that govern our use of communication technologies determine whether email is commonplace or complex, or if we have ever attempted synchronous trans-continental electronic collaborations. Social institutions offer a plurality of settings from which we explore the dynamics of the human-machine interface. The human-machine interface influences and shapes social meanings, interactions, knowledge production and the goods/services provided and utilized. Indeed, changes in the availability, quality and quantity of communication technologies are arguably revolutionizing, and fundamentally altering, how individuals and organizations interact, communicate and work.

COMMUNICATION AND THE HUMAN/MACHINE INTERFACE

Research Premise and Book Aims

Our exploration of the dialectical relationship between ‘culture’ and ‘technology’ starts from a premise characterized by a multitude of dualisms: Western/non-Western, natural science/social science, reality/virtual reality, etc. To further our understanding of this philosophically-complex relationship, this book begins from the premise that knowledge is socially constructed (Vygotsky, 1978). It presents a range of theoretical premises within multiple disciplines with the aim of critically questioning the purpose and success of technological rationalism on communication and learning outcomes in a global, multicultural world. Both qualitative and quantitative research methodologies are used to explore how the dialectical relationship between humans and machines affects communication, professional development, practice and ultimately, organizational and business success. Generally speaking, the purpose of this book is to educate and familiarize everyday users of CMC technologies with the frequently unanticipated outcomes that accompany dialogue in virtual environments. This intelligent, yet easy-to-read, resource is intended to serve as a reference for academics, researchers, managers and developers faced with the complexity
of ‘human factors’, which inevitability predispose digital technology users to miscommunication and potential conflict, as well as potentially new and stimulating social interactions.

Intended Audience and Reader-Benefits

Asserting the need to foreground ‘social’ criteria (socio-cultural norms, values, beliefs, and attitudes) when planning and using CMC technologies, this book is intended to empirically inform system developers, managers and users of CMC of key challenges and successes faced by real-world users. Anticipated readers include applied and academic researchers, professionals, educators, students, urban and rural/regional planners and policymakers, software producers, project developers and everyday users of virtual communication technologies worldwide. Readers may expect to gain a basic understanding of contemporary debates, first-hand understanding of the importance of transcending technocratic arguments to achieve sustainable management of global customers and learners. Case-specific examples show how and why understanding socio-cultural norms, attitudes and beliefs, and systems management are of central importance to individual and organizational success. As a multi-disciplinary project, this book seeks to transcend disciplinary boundaries by documenting experiences and challenges (material, social and technical) virtual communicators faced in national, global, cross-cultural and/or multi-dynamic environments during the course of everyday life.

This timely book questions existing trends and thinking in the research literature regarding the purpose, success and impact of technological rationalism in a global, multicultural world. Research examples are contextualized amid contemporary national and international debates over the purpose, commitment and practices of communication ethics, higher education practice and flexible delivery. Further, this collection of examples reveal the wide range of competing organizational and institutional agendas which are each seeking to achieve, among other things, a competitive advantage by including CMC in their everyday operations. By exposing a host of tacit knowledge, skills and competencies assumed inherent in technological systems, this book ultimately questions the intentions, desires and beliefs held by IT users and developers. Tales of caution frequently emerge, showing if communication and interaction presumptions fail to match reality, at worst, disaster ensues, yet, at best, innovation occurs. Communication failure and false assumptions in social interactions can lead to mismanagement, lawsuits, unachievable user-expectations and a range of other readily-avoidable undesired consequences. Hence, by analyzing pitfalls experienced by leaders and users in the field, and by sharing the innovation-yielding stories of success, this book encourages others to embark on their own CMC adventure, equipping them with a few life lessons. In brief, we implore readers to carefully consider the ‘social’ dynamics which accompany the development and use of micro and macro technological systems and aspire to empower new-users to trial CMC technologies, if they haven’t already. For the more seasoned IT user, we provide concrete tips so users and developers may refine their existing communication environments in light of new research findings. Ultimately, it is hoped this book will prove to be a useful professional resource, irrespective of readers’ IT experience, enhancing social interactions in tomorrow’s world.

Contributors and Content: Diversity in Thought, Place and Practice

Key researchers and educators from Australia, England, Germany, Malaysia, New Zealand and the United States have worked to bring you first-hand insights, gained through their pioneering efforts, with using and evaluating CMC technologies for work, education, research and pleasure in this edited research collection. Drawing upon applied and research expertise spanning the gamut of natural and social sciences, this book delivers reflexive research about cutting-edge educational and professional practice technolo-
gies. Sourced from a broad range of leading institutions, the university educators contributing to this book draw upon the application of flexible/distance education delivery, or e-learning, experiences as well as examine the utilization of technologies and/or electronic learning materials in traditional face-to-face classroom environments. Contributors use a variety of research methodologies, such as qualitative case studies, secondary analyses, interviews and focus groups, and quantitative research, particularly surveys, to present key findings that explore how the dialectical relationship between humans and machines has and continues to affect communication, professional development, educational practice, and ultimately, organizational and business success. By foregrounding socio-cultural norms, values, beliefs, and attitudes this book firmly aims to elevate the social, or ‘human factors’, to a position of priority in the minds, and economically-driven plans, of system developers, managers and users.

As an interdisciplinary project, this book brings together a collection of collaborative and discipline-specific research to explore various aspects of CMC technologies. Each chapter begins from a slightly different worldview. The research presented here has been conducted by both academics and applied professionals in a multiplicity of fields: business, communication, education, forensics, governance, information technology, language studies, law, management, marketing, media, microbiology, music, nursing, philosophy, psychology and sociology. Collectively, these chapters provide a plethora of concrete examples and lessons which are sure to inspire, at times forewarn, and otherwise educate current and future CMC users and developers.

SECTION 1: COMMUNICATION TECHNOLOGIES IN APPLIED SETTINGS

In the first section, Communication Technologies in Applied Settings, we take a journey to far corners of the globe to examine how contemporary technologies are being used to bridge vast geographical divides. We begin the journey in Auckland, New Zealand where two pioneering Lecturers of Pharmacotherapy, Nataly Martini, who obtained her Ph.D. in pharmacy in South Africa and Jeff Harrison, who holds a PhD in Orthopaedic Surgery from the United Kingdom, along with Rick Bennett, a PhD student at the University of Sydney and academic and the College of Fine Arts in the University of New South Wales, Australia, introduce us to their “Creating Waves” project.

To facilitate online international collaboration among pharmacy and graphic design students, educators, mentors and community representatives to produce real world outcomes for Kenyan villages, Chapter 2, Creating waves across geographical and disciplinary divides their online creative collaboration, provides an excellent example of how Ominum software can be utilized for extraordinary purposes. Targeting six major health issues faced by residents (adherence to medical instructions, chronic diseases, tuberculosis, sexually transmitted diseases including HIV, malaria and immunization), this research produced three health awareness campaigns: a. children’s football uniforms with “Stop HIV” messages printed in local language(s) b. malaria card games and c. health message stickers for use in healthcare centers. Through a highly interactive and virtual process, students, aided by local health workers’ input, collaboratively turn health and social issues into ‘real world’ products that are manufactured and shipped to Kenya.

Creating Waves transformed a virtual educational experience into a ‘global citizen’ experience. Many factors contributed to the project’s “modest success”: immediacy of feedback, member involvement, collaborative learning style, coordinator and mentor feedback, team members’ knowledge and issue engagement. For readers interested in comparing face-to-face and virtual social interactions, this chapter offers lessons and inspiration for future endeavors, as well as introduces the authors’ new project in Uganda, Triune 2009.

Next, we are taken inside a company without walls. With 90% of all communication occurring via email, and the remaining interactions transpiring over the telephone, the second chapter, Designing e-
mail for knowledge management in distributed organizations, offers insights for achieving successful communication in a business environment where the main office is run by seven directors all working from home. Effective email communication proves crucial to attend the business needs of a largely-international customer base comprised of airline cargo companies.

Detailing the insights provided in Chapter 3 are Linda Leung, Tania Humphries and Alastair Weakley, all affiliated with the University of Technology in Sydney. Dr. Leung, who has worked in the multimedia industry in London, is author of two books examining the appropriation of technology and effect of disciplinary background on media practitioners. She is a Senior Lecturer at the Institute for Interactive Media and Learning. Tania Humphreys, a web project manager, has worked in the UK and Netherlands and directed an airline software development company in Australia where she developed and implemented websites. Dr. Alastair Weakley holds a Ph.D. in computing science and specializes in creative collaboration. Together, these IT experts use interview and focus group data with company directors to examine how email can be used as a method of knowledge management in a distributed organization. Using creative visual diagrams, Leung et al assert email is so much more than a communication tool; it is an interaction medium that must be sufficiently innovative and enticing to produce effective interactions. Technically-savvy directors, it was found, sought systems that would produce knowledge through accidental discovery. Thus, an email information visualization system was created to encourage users to explore existing information in new ways, which subsequently increased the pliability of their interactions.

Continuing the exploration of new uses for technologies increasingly integral to communication in contemporary societies, Chapter 4, E-mail interviews with senior legal professional women in Australia, by two sociologists at Charles Sturt University, Angela T. Ragusa (PhD Virginia Tech), editor of this book and the journal, Rural Society, Lecturer in sociology and course coordinator for the BA(Honours), and Philip Groves, Ph.D. and law student, question the suitability of email as a tool for qualitative data collection when ongoing social interaction is absent. After extensively reviewing the benefits and limitations of using email to generate research data, informed by the social theory symbolic interactionism, primary interview data collected from female barristers practicing as a Senior Counsel (SC) in Australia is presented to investigate gender inequality in the legal profession.

Despite email being the preferred communication tool by time pressured, busy legal professionals, lack of social interaction affected response rate, depth of responses and the propensity to disclose sensitive information. In contrast with past research, Dr. Ragusa and Mr. Groves found the lack of cues typically present in face-to-face interactions, such as eye contact, gestures and verbal communication, limited the production of genuine responses about the sensitive issue of gender discrimination. Email interviews exposed little in relation to the attitudes and beliefs held by female barristers about what allowed them to achieve ‘success’ in an historically male-dominated profession. Lack of probing, varied interpretation of interview questions, misinterpretation and ambiguity, each which may be easily remedied in face-to-face interactions, proved fatal in the virtual environment. Thus, Chapter 4 concludes that the establishment of a social relationship between researcher and interviewee is paramount to the successful conduction of email interviews in social research, rendering the logistical merits of temporal efficiency, cost-effectiveness and geographic distance moot.

The last, but certainly not least, applied setting we encounter in this collected edition takes us to Malaysia where Ph.D. student Abdul Gapar Abu Bakar, who has studied in the US, UK and presently Australia, and Associate Professor Graeme Johanson, Director of the Centre for Community Networking Research at Monash University in Victoria, share their insights about how public administrators use interactive information communication technologies to foster e-democracy in the Malaysian federal government. Chapter 5, Information and communications technologies and policy development for e-
democracy in Malaysia, uses publicly-available documents and key informant interviews to expose how CMC, by diminishing traditional barriers and facilitating government-citizen interaction and engagement, contributes towards Malaysia’s 2020 goal of becoming a developed nation. Infrastructural improvements in communication and multimedia technologies have driven national policy since 1998, promoting civil society, enhancing work/life quality, nurturing national identity and global diversity and increasing skill development. Overall, interactive communication technologies are argued to empower and educate Malaysian citizens although the term ‘e-democracy’ remains absent in interviewees’ vocabulary.

To further progress Malaysia’s democratic and development objectives, Mr. Bakar and Dr. Johanson recommend three key propositions for public administrators to consider relevant to online citizen participation. First, administrators must embrace e-democracy in the policy development process, albeit in the context of pluralism, to achieve international progress and meet the goals identified by international organizations. Second, the ability for interactive communication technologies to generate local community participation with policy development requires recognition. Finally, administrators would fare well to consider practices and values unique to each community.

SECTION 2: COMMUNICATION TECHNOLOGIES IN HIGHER EDUCATION

Higher education learning environments offer a key institutional setting from which to explore the dialectical relationship between humans and machines, and hold lessons about how education, as a social institution, influences and shapes meanings, interactions, the production of knowledge and even the production of education as a commodity. Given the centrality of higher education as a leader in the development and use of CMC technology (see Ragusa, 2009), particularly the historically-unprecedented capacity of distance education to substitute or complement traditional face-to-face learning, the remainder of this book is dedicated to research examining the use of CMC technologies in university learning and teaching. Section two, Communication Technologies in Higher Education, also prioritizes an interdisciplinary and global examination of the topic and is divided into four subsections. Although overlap certainly exists, chapters are grouped in a way that captures the overall spirit and analytical approach of researching communication technologies and their subsequent impact upon social interactions and human engagement.

SECTION 2 A: WE DEMAND CRITICAL REFLECTION OF TECHNOLOGY’S IMPLICATIONS

Section II-A begins with a critical examination of some implications technology has had on higher education institutions. Chapter 6, The antecedents and consequences of adopting learning management systems in selected Australian universities, by Jonathan Pratt, a management Lecturer at the University of Technology in Sydney, asks academics to hold the looking glass towards themselves when he takes a critical look at the decision-making processes surrounding the adoption of educational technologies at three Australian universities. Tracing the historically new economic imperative for higher educational institutions to operate increasingly as free-market enterprises, online learning is revealed to be a proverbial golden egg. However, uncritical adoption of learning technologies has come at a cost, one which surpasses economics. By analyzing interview data and documents from three Australian universities sitting on different steps of the ivory tower, competition and disparate attitudes towards distance education are found to contribute towards variation in levels of institutional support and adoption of educational
technologies. With the political veil unfolded, Pratt’s evaluation of the true motives driving these substantive institutional changes gives readers an insider’s view of how and why decisions are really made about IT adoption. In what amounts to a continuation of the Enlightenment project, notions of progress and keeping-up-with-the-Jones outweigh substantiated arguments for adoption of learning management systems. Ultimately, educational merit and improvement prove to be serendipitous outcomes in lieu of upholding social networks, institutional and personal reputations, forging an entrepreneurship spirit and continuing organizational myths, which are each revealed to be key drivers in the decision-making process governing organizational change.

Are technological advances threatening the professionalism of law students in contemporary society? According to Gaye Lansdell, an Associate Professor of Law at Monash University, substantial changes in the delivering and content of law school curriculum and assessment, due to massive increases in enrollment numbers and the associated labor and financial costs of operation, have led to a shift from vocational to liberal teaching modes over the past decade, often with dire consequences. Dr. Lansdell’s academic and professional experiences in both the UK and Australia have guided this technically-deterministic picture of existing online law school programs, which are largely a response to the commodification of legal education. Historically, communications skills, the cornerstone of legal practice, were developed by watching legal professionals exercise their verbal acumen. Today, virtual communication largely replaces this experience due to the logistical reality of rising student numbers, time and financial cost of vocational-based training in law firms. Student-driven demands for flexible learning have resulted in inferior legal training. In Chapter 7, Have we forsaken quality and professionalism for technological convenience in the training of lawyers in the 21 century?, surveys, student evaluations, instructor observations and unsolicited student comments work to reveal a rise in assessment-related surface learning coupled with student perceptions that distance education entails removal of engagement in some of the traditional social interactions so crucial to the education of effective lawyers. Hence, to establish distance education programs which sufficiently meet best practice measures for legal training, an extensive list of recommendations is put forth.

Vodcasts! How to unsuccessfully implement a new online tool, is the next chapter which critically challenges implications of educational technology of as a means of communicating subject content in university learning environments. Andrea Crampton, who completed her PhD in microbiology and parasitology at the University of Queensland, has worked extensively as a research scientist in Australia and the US. Thiru Vanniasinkam received her Ph.D. from the University of South Australia and is working to develop a viral vector-based vaccine. Both Lecturers at Charles Sturt University where Dr. Crampton teaches microbiology and forensics and Dr. Vanniasinkam teaches virology, bacteriology and immunology. Natalie Milic also received her Ph.D. from the University of South Australia and presently is a Lecturer in Pharmacy at Charles Darwin University in the Northern Territory. These three natural scientists deliver to readers the first documented attempt to use short web-hosted videos, termed ‘vodcasts’, to assist undergraduates with development of key skills in scientific laboratories.

Targeting English-as-a-second-language students, whose cultural attempts to ‘save face’ often translate into premature indication of skill comprehension, vodcasts enabled all students to access scientific skill demonstration in a flexible, repeatable fashion. Yet, despite vodcasts providing some students the only opportunity to see the skill demonstrated by a highly skilled technician prior to having to execute the task themselves, the technology received limited uptake. Analysis of survey data found reasons for low uptake were largely due to failed communication, lack of adequate publicity and lack of knowledge regarding access. Unsurprisingly, skills tested in conjunction with assessment were viewed the most. Students showed support of vodcasts as a supplemental learning tool, provided they did not replace time at the laboratory bench, irrespective of their individual use of them. Students who did and did not view
the vodcasts thought they would be useful to future students and those who viewed one or more vodcasts also thought it improved their understanding of key concepts and skills. Dr. Crampton et al continue to recommend a number of ways new technologies can be more successful incorporated into any new arena, highlighting the central role practice communication and social interaction play in encouraging the adoption of technical learning tools.

SECTION 2 B: WE TEND TO FEEL LIKE SOMEONE’S WATCHING

Having examined instances where communication technologies at times failed to live up to their expectations, despite the best intentions, Section II-B of this book continues to explore the ‘darker’ side of technology. In the company of critics and theorists such as Michael Foucault who wrote broadly about the capacity of systems to impede humanity and render bodies of the flesh powerless while architects and masters of social systems retained an omnipotent capacity for surveillance, the next four chapters critically investigate why sometimes the use of interactive communication technologies makes us feel powerless, or as if we are being observed. Perhaps it is because at times, we are! However, not always, but just sometimes, the experiences may prove to be positive.

Adopting a critical, sociological lens, Jill Harrison-Rexrode, a Virginia Tech graduate student, and John Ryan, Professor and Chair of Sociology and Interim Director of Africana Studies at Virginia Tech, where he also teaches the sociology of law, show us how technology is indeed a social, rather than simply a technical, process. Examining widespread student use of laptops at Virginia Tech in the United States, the mutually beneficial, economically-driven relationship between computer manufacturers and universities is noted as a driver of laptop diffusion in higher educational institutions. Despite the marketing campaigns, laptops frequently result in student disengagement in traditional, face-to-face classroom environments. Students frequently choose social interactions and communications, such as chatting or social networking on Facebook, over educational activities. Through participant ethnography, focus groups and surveys, Ms. Harrison-Rexrode and Professor Ryan argue in Chapter 9, Diffusion of technology in higher education classrooms, that laptop use in traditional classroom environments has more disadvantages than benefits. Aside from being a distraction, students newfound ability to instantly access knowledge sources extraneous to the classroom, via the Internet, further challenges lecturers’ authority, power and control. Moreover, the increasing rate of homicides occurring on university campuses compounds the function communicative technologies serve, irrespective of pedagogy, in an age of heightened security where security itself is electronically enforced.

Thinking about security, if you found someone lurking around your home, chances are you would not feel ambivalent about their behavior; but, what about virtual lurking? If you were socialized to be Western, then you may perceive virtual lurking negatively. Yet, if you were raised with Eastern values, then such behavior may not only be ‘normal’, it may well demonstrate proper socialization rather than ‘free-riding’. Stephen Bax, Principal Lecturer at Canterbury Christ Church University in the UK, who has extensive work and research experience in Europe, Latin America and the Arab world and is author of the book Discourse and Genre, and Mark Pegrum, Assistant Professor at the University of Western Australia, e-learning and World Englishes lecturer in the Graduate School of Education and co-editor of Brave New Classrooms, take readers of Chapter 10 into the world of Lurking in multicultural online educational forums.

Drs. Bax and Pegrum bring to this collection a culturally-informed analysis of intercultural virtual interactions. Language teachers from Australia, Singapore and the UK communicated via asynchronous forums and reflected on their experiences in face-to-face interviews and written questionnaires. Expla-
nations for lurking, or conversely increased social interaction, were practical factors (prior experience and time), socio-cultural factors (group dynamics, self-image and cultural norms) and language factors (linguistic competence and cross-cultural dialogue). These and other findings lead the authors to proclaim the multi-dimensionality of lurking and encourage us to ensure that if we ever host a virtual party (i.e., virtual discussions), we provide more than directions to the site. In other words, be careful not to label behavior as ‘deviant’ if it merely does not live up to your own cultural expectations.

Transitioning to a more philosophical realm, Morgan Luck, Senior Lecturer in Philosophy at Charles Sturt University, asks us to carefully consider the ramifications of and risks associated with adopting surveillance tools in virtual learning environments. Chapter 11, *Surveillance and the virtual classroom*, begins with a clear definition of ‘virtual classrooms’ and subsequently poses scenarios that question the role surveillance tools play in monitoring student performance. Focusing on the more coercive aspects of surveillance, Dr. Luck argues both high-achieving students and lectures may heighten their risk of experiencing the deleterious effects of surveillance. For example, self-motivated and academically gifted students may experience boredom and reduced interest if obliged to download flexible learning material they find superfluous, simply so they may be perceived by lecturers and administrators as attentive learners. It is the potential, more than reality, of surveillance that poses the greatest threat to student learning.

The panoptic potential of virtual classrooms is omnipresent and surveillance extends beyond the student-teacher relationship. The corporatization of universities has ushered in a heightened level of managerialism, a condition rarely characteristic of higher educational in bygone eras. Extended to a radical level, technocratic education not only plays upon lecturers’ fears that their teaching skills may become redundant, but moreover creates the potential for ever-expanding workloads in a culture seemingly guided by increased standardization, otherwise labeled by sociologists as McDonaldization. Alarm over ‘dataveillance’, cries lamenting the loss of the art of teaching and the distress likely to be generated by digital surveillance, although possible, are nevertheless able to be attended, and possibly prevented, if they are acknowledged as legitimate risks faced in our digital society.

The last chapter of this section, *ePortfolios and Pre-service Teachers*, continues examining the power-laden relationship between humans and the technologies of our making. In Chapter 12 we learn why and how an Australian teacher education course came to adopt ePortfolios as part of their professional preparation for pre-service teachers. Dr. Peter O’Brien, a Lecturer in the School of Cultural and Language Studies in Education, and Mr. Nick Osbaldison, a PhD candidate in Sociology, both at the Queensland University of Technology in Brisbane, conceptualize the ePortfolio as a non-human actor that actively contributes to and exerts influence on the social interactions teachers experience while pursuing teacher training. By applying the analytics of government, these researchers employ case study methodology and conduct a documentary analysis to show how ePortfolios can be conceptualized as a technology that confers authority in the government of pre-service teachers. The chapter discloses the conditions under which ePortfolios became both thinkable and a rational means to reform teacher education.

Typical of social reforms more broadly, the social change highlighted by the use of ePortfolios in teacher education at this Australian institution reveals positive and negative consequences. For instance, as an eLearning technology, ePortfolios fostered autonomy and self-realization among students. Yet, as a form of governance, the authors argue the future failure of ePortfolios is inevitable given the power-imbued relationships accompanying the social processes surrounding this learning technology. Theories of governmentality and rationality are used to predict this bleak forecast. The inevitable failure of ePortfolios, as a technical learning tool and practice of government, stems from delegation of moral authority to non-human actors, rendering the adoption and existence of ePortfolios paradoxical and even restrictive. In brief, this critical analysis implores us to consider how those professional qualities desired
in pre-service teacher education can be best cultivated without deteriorating into a power embedded relationship whereby technology programs its own demise.

SECTION 2 C: WE NEED EFFECTIVE COMMUNICATION TOOLS IN SUPPORTIVE ENVIRONMENTS

Technological tools, whether interactive or otherwise, which exist in an unsupported environment are likely to fail regardless of their technical aptitude. Advocating the need to prioritize ‘human factors’, such as presentation of ‘self’, learning support and environments that encourage active participation are among the research foci academics and IT experts in Faculties of Medicine at universities in Australia and New Zealand explore in Section II-C. Collectively, these four chapters articulate perceptions of marketers, nurses, psychologists, and IT specialists about the desirability, adoption and adaption of virtual learning technologies in contemporary educational environments.

Hello. Is there anyone out there? According to psychologists Andrea Reupert (PhD), a Senior Lecturer at Monash University with over twenty years of experience as a mental health expert working in schools, universities and clinical therapy, and Darryl Maybery (PhD), an Associate Professor of Rural Mental Health, also at Monash, who has fifteen years of clinical experience in drug and alcohol counseling, prison psychology and employee assistance services, as well as teaching and research expertise in research methodology and statistics, when it comes to distance education, most students certainly hope there is a real human at the other side of the computer screen. Chapter 13, Is anyone there? Being present in distance education employs case study methodology, interviews and focus groups to question if students desire a ‘personal presence’ from their lecturer. Interviews with lecturers examine what they personally bring of themselves to the virtual classroom. From the perspective of the lecturer, being passionate about the content of their teaching, delivering quality interpersonal skills and remaining open and available to student enquiries were central tenets for effective distance teaching. Lectures’ personal presence was conveyed via self disclosure, relationship building, enthusiasm and humor. However, the capacity for technology to produce a permanent record of communication led some lecturers to exercise more caution with virtual discussions than face-to-face classroom interactions. Moreover, the instant feedback generated in electronic communication runs the risk of students expecting learning assistance ‘24/7’.

From a student perspective, demonstration of lecturers’ ‘human side’ was desirable for most, although a minority thought the social aspects of distance learning was time wasted. Some sought neither a personal relationship with their lecturer, nor with their peers. Additionally, the transition to student-centered learning blurred traditional boundaries, leading to discomfort for some who felt lecturers’ status should remain authoritative. From the 83% of distance education students who listened to voice-over Powerpoint lectures, 97% reported it contributed to their learning psychology statistics. Overall, from this chapter readers will encounter numerous ideas about how communication between lecturers and students may be enhanced.

Our focus on communication and interactions in higher education continues in Chapter 14, Critical issues in online resourcing for international and local students’ academic writing, where two other academics from Monash University, Rosemary Clerehan and Ian Walker share with us their experiences with online academic writing support for domestic and international marketing students. Rosemary Clerehan (PhD, Monash University) is an Associate Professor and Director of International Postgraduate Academic Support in the Faculty of Medicine, Nursing and Health Sciences who, along with Ian Walker (MA, Governor’s State University, Illinois), a PhD student, Senior Lecturer and Program Director
in Marketing, have analyzed in-depth student interviews, diaries and surveys to identify what support students require. By developing an online learning resource linked to webct sites, students received assistance with assignment preparation, such as understanding assignment guidelines, learning how to research and strategies for academic writing.

Leading by example and the incorporation of peer mentoring resulted, the web resource created much discipline-specific knowledge. In particular, it provided students with knowledge about textual structures relative to assessment format, discursive processes, such as experience gained from reviewing how students approached research, and articulation of key institutional practices, such as which specific skills are valued by particular disciplines. Evaluation revealed although more international than domestic students used the web resource, the majority of students found it a useful resource for academic assistance. Lecturers, on the other hand, thought the resource saved time, permitting student referral rather than individual tutoring.

Our exploration of lecturer perception continues with the insights Michelle Honey’s doctoral research offers us in Chapter 15, Using virtual learning to teach postgraduate nurses. Working under the supervision of Nicola North, a nurse, midwife and academic at the University of Auckland with a BA and MA in Social Science and a PhD in Social Anthropology, together they contribute educators’ perspectives on the introduction of virtual learning in three differently-structured postgraduate nursing courses in New Zealand. Using interview-generated data, this chapter identifies numerous themes relating to the perception and adoption of learning technologies. In general, technical experience influenced adoption and success with new virtual learning tools. However, a cautionary tale is told as expectations that technologically-advanced subjects would result in reduced workload failed to materialize. In reality, increased opportunities for social interactions and communication between lecturers and students heightened workloads and relinquishing control of course content and management to instructional designers or technicians proved stressful to educators.

Despite drawbacks, some educators appreciated the workplace freedom virtual learning offered, such as being able to work away from the office, and the realities of geographic distribution and shift work experienced by postgraduate nurses translated into an appreciation of this new delivery mode. To maximize the success of new learning environments, a number of practical tips are offered. For example, the ability to access expert technical support without relinquishing control over course content is discussed at length. Peer-based mentoring for educators, establishment of learning communities and the necessity of professional development are also proposed. Overall, virtual learning is argued to highlight good teaching practices, yet the changing role of educators and the need for educator support are emphasized.

Lastly in this section, a team of four researchers from Monash University present some of the Psychological factors influencing user acceptance and usability in Chapter 16. From the School of Psychology, Psychiatry and Psychological Medicine is Jim Phillips (BS(Hons) Adelaide University; PhD, Flinders University), a Senior Lecturer, and Maxwell Jory (BS(Hons); PhD Monash University), the Director of Undergraduate Studies. Together with Lasitha Wijenayake, IT and Multimedia Service Manager for the Faculty of Medicine, Nursing and Health Sciences and Paul Hii (BS(Hons) Computer Systems Engineering and MS Information Technology), a Network Engineer for the Infrastructure Services, Information Technology Services Division, they deliver to readers some of the psychological factors that influence usability and acceptance of educational technology by focusing on the adoption of video conferencing and mobile phone usage as supportive teaching and learning technologies for remote Australian locations.

Using student survey data, Philips et al describe how individuals value and perceive virtual interactions in a way that differs from face-to-face interactions. Psychology students’ preference for face-to-face
classroom lecturing over video-conference lectures is evidenced along with the reality that just 20% of students downloaded online learning materials during half of the semester. Variation in student type is argued to be responsible for difference in educational delivery preference, with keener students preferring a live lecturer and students predisposed to procrastination preferring recorded lectures. Students with access to campuses with afternoon and evening classes were found to attend lectures more than off-campus students who were given optional weekend sessions and whom accessed online audio learning material more frequently. Despite notable differences between student type and learning preferences, the majority of students favored using mobiles for learning purposes.

SECTION 2 D: WE ARE CREATING ADAPTABLE COMMUNICATION ENVIRONMENTS

In this final section of the book, researchers in Australia, Germany and New Zealand use group-work, virtual scenarios and a variety of learning communities to share with readers ideas they may be able to take away and adapt for their own virtual communication environments. The researchers’ disciplinary backgrounds in communication, forensic science, language studies, music and sociology ensure an eclectic approach to the issues at hand and offer myriad insights.

The first chapter to demonstrate how learning environments can be structured to develop effective interpersonal communication skills is Chapter 17, Social interactions in virtual communication environments: Using Sakai to teach forensic science. Co-authored by Andrea Crampton and Angela Ragusa, whose biographical details have been earlier described, this chapter articulates how the goal of creating a learning environment which simulated real-world social interactions likely to be encountered in the future workplaces by biotechnology and policing students was realized. The use of scripting and role-play in a collaborative teamwork, group-based project conducted within a virtual crime scene scenario demonstrates how CMC technologies facilitated the reproduction of dialogue typical among police officers, crime scene officers and lab technicians involved in crime scene investigations.

Created using a Sakai-based platform, a multiplicity of interactive technologies (announcements, blogs, chat tools, podcasts, polls, schedule tools, virtual lectures and wikis) were trialed to foster asynchronous and synchronous communication between students of varying backgrounds and professional experience, ranging from senior detectives/investigators and police officers to novices, as well as lecturer-student dialogue. Lecturer experiences, student comments and participant observation are provide in-depth data that is qualitatively presented to reveal adoption trends and user preferences of internal and distance students, many with concurrent work and family commitments such as lengthy court appearances, unanticipated workload increases due to fire and murder investigations and shift-work. Findings show the adoption of flexible delivery tools utilized within a structured learning environment produces effective learning outcomes for the majority of students. Scripting is shown to support active learning and guide communication in a virtual group-work setting. Although some student comments indicate initial apprehension about technical aptitude, the majority are found to enthusiastically embrace the learning experience. In general, the chapter illustrates concrete ways to simultaneously engage novices and professionals in peer learning and provides evidence that tasks constructed with easily identifiable real-world relevance assuage user premonitions about technological angst.

Alexandra Ludewig, Associate Dean of Education and Convenor of German Studies at the University of Western Australia, who has studied and worked in England, Germany, South Africa and Australia, and Karin Vogt, a Professor in English at the University of Heidelberg in Germany who teaches English and French in educational, vocational and business environments, qualitatively analyse the use of e-mails, field
notes and survey data in their case study of foreign language instruction in higher education. Chapter 18, *Virtual learning communities in higher education*, begins with the premise that intercultural classrooms may enhance learning opportunities so long as processes involving the creation, monitoring and evaluation of online learning communities are established. From a collaborative effort between universities in Australia and Germany linking foreign language students, as a supplement tool to face-to-face learning, Chapter 18 alerts readers to findings of interest to readers eager to create successful cross-cultural virtual learning environments conducive to higher-order thinking, deep learning and critical reflection.

Intercultural communication entails the creation of meaning from the sharing of culturally significant symbols. When this occurs in a virtual environment, the potential for miscommunication is great. Cultural stereotypes, although potentially sensitive, are shown to provide the impetus for exercise of critical thinking skills as they not only prompted learning about others’ culture, but also served as starting points for self reflection. In order to establish an effective intercultural communication environment where socially diverse participants interact, there needs to be shared goals, interests and, most importantly, a structure, which the authors term a ‘scaffold’, that guides communications. However, it is noted that ‘telecollaboration’ requires a significant investment in time from educators and coordinators, an investment that may not be reflected in student evaluations. Nevertheless, the authors advocate the investment because of the learning outcomes, in terms of the generic skills and subject content, intercultural collaboration produces.

Looming quietly in the background of many chapters in this book is the underlying notion that generations, particularly Traditionalists, Baby Boomers, Generation X and Generation Y, have divergent technology interests and needs which are frequently manifested when they interact. Generation Y, alternatively termed the Net Generation, or 21st-Century neomillennial learners, are those born after 1980. According to Karen Le Rossignol, a freelance writer who lectures postgraduates in creative and professional writing at Deakin University in Melbourne, has published thirteen texts on communications, small business and team work and bring more than 20 years of industry knowledge about writing, editing and curriculum design, the Net Generation has unique requirements regarding their learning needs and interpersonal skills which must be addressed. Chapter 19, *Experiential learning through virtual scenarios*, introduces readers to two case studies drawing upon postgraduate communication students’ work with a fictitious virtual world called ‘Newlandia’ and an experiential project with ‘Exposure’, a real festival of performing and creative arts. Although both case studies were practice-based and took a learner-centered approach, student surveys and learning performance found Newlandia was better suited to accommodate both collaborative and individual assessment tasks. However, the Exposure teams supported problem solving with mobile communication technologies, accommodation of difference in opinion and approach and an appreciation of workplace deadlines and public outcomes. As a social group, the Net Generation is found to appreciate more interactive learning styles which in turn foster their ability to be self-directed, reflexive and flexible.

The final chapter in this book, Chapter 20, is written by a lecturer of musicology at the University of Auckland. Nancy November’s (PhD, Cornell University) expertise focuses on the aesthetics, analysis, performance history and practices of late 18th Century music. In *Integrating online group work into first-year music studies in New Zealand* we encounter first year music students’ and instructors’ perceptions of online group work. In this chapter, an online learning environment is used to supplement face-to-face teaching caused by pragmatic issues relating to staffing and timetabling. Through the use of in-house and web-hosted software, student collaboration was achieved with online discussions and file sharing, which enhanced active involvement and engagement with the subject material. A range of findings emerged from her experience which readers may find encouraging and worthwhile. First, the most useful collaborative process proved to be small group online discussions. Students found probing
questions and critical responses helpful, noting the virtual discussions demanded preliminary research to ensure effective participation as well as afforded the opportunity to view others’ research.

Yet, just 35% of students felt the collaborative exercise was useful and supported learning community formation. Students for whom English was a second language experienced the greatest difficulty creating probing questions and developing critiques. Additionally, we are told some students perceived online group work as reminiscent of high school activities and unsuitable to university-level education. 25% of respondents were from groups incorporating a blended face-to-face and online approach. From this subgroup, 81% commented on the usefulness of face-to-face meetings. In light of these findings, the chapter concludes by offering readers ‘4-M Guidelines’: Modularize, Motivate, Model and Moderate.

REFERENCES