Preface

Technology catalyses changes not only in what we do but in how we think. It changes people's awareness of themselves, of one another, of their relationship with the world.[1]

Personalised learning seems to have been adopted as the new mantra in education. This is in part due to the widespread availability of software which purports to support honourable aspects of learning, reflection, consolidation and extension…. to name but a few. The environment for learning has also radically changed from didactic taught classroom or lecture based delivery to an environment which empowers learners to take responsibility for their own learning. Such backgrounds as VLEs, MLEs, LMS and Web 2.0 tools, blogs, WIKIS, social networks all have changed the engagement between learner and teacher, as well as between learner and learner. This is within a variety of contexts both formal and informal.

The political dimension is also attributable. The UK government is keen that children, pupils and students will 'enjoy and benefit from a personal learning experience'. Surely, learning has always been personal? The way I learn is not the way you learn. This is true of how I experience and assimilate the learning occurrence in the lecture hall. How I use a blog or social network site as my preferred learning platform is inevitably and fundamentally different to any other user. The depth and meaning of reflection on my experience may be due to the rigours of my course and the often imposed assessment pattern or personal as I want to 'see' how and how much I have learnt, understood, or can apply in a variety of alternative scenarios. Personalisation, learner, pupil or student centredness advocate the use of the learner's own predilection, behaviour and activities.

The tension is between the formal institutional assessment regime and methods which are often incoherently mapped against the personal, individual learning strategies advocated by misaligned curriculum ideologies which advocate personalised learning and independent activity based engagement. These do not nestle comfortably within many institutions who feel it necessary to have generic examinations which 'test' against what was learned and remembered during a specific course, module or learning episode. This is often to the detriment of utilising skills, knowledge and personal learning attributes which can be assimilated within a future scenario or domain.

The content of this publication highlights the many areas in which practitioners are attempting to implement learning technologies and reflects themes of current topical interest. Personalising learning and the learner experience can be supported, enhanced and encouraged by the application and intervention of technology. However, this must be carefully considered within the realms of what is both possible and desirable. Internal and external factors also make a significant difference i.e. the institutional impediments and often unsalable network access, the culture of the institution or environment, the engagement with and by the students in formal, informal and situated learning. Finally technology, Web 2.0 and increas-

ingly social networks provide an opportunity to delve into additional learning experiences, but these do need careful consideration if we are not to dilute the value, nature and experience of learning itself.

The book has three main sections: Infrastructural and Cultural Issues, Pedagogical Issues and Technological Issues. The first section on infrastructure considers aspects related to the major infrastructural, cultural and organisational changes required, if innovation is going to effect any change in the institutional regime. It will focus on the role of the student and the tutor in the personalisation of the learning process. The section on pedagogical issues presents descriptions of the different cases and ways in which practitioners have attempted to use learning technologies and give personal examples which illustrate both the potential and dangers of personalised learning technologies. The section on technological issues will present descriptions of the "tools" that practitioners are using, outline their strengths and weaknesses and highlight issues that need to be considered when planning to implement new personalised learning environments.

Whilst the chapters are located within a section, the nature of technological use cannot be so compartmentalised - so many of the studies and topics reported here cut across many boundaries, infrastructural and cultural, pedagogic and technological. The key issues highlighted and discussed include widening access and participation, student-centred and collaborative learning and the changing role of the tutor/ pupil/ student.

CHAPTER DESCRIPTIONS

This book consists of 23 chapters, written by 47 authors, loosely grouped into the three sections as follows.

Introduction/ Chapter 1: *Personalisation through Technology-Enhanced Learning*. Gráinne Conole. This introductory chapter considers the discourse of the concept of personalisation and how it can be supported through technology-enhanced learning. It looks at the policy rhetoric and considers to what extent it is realised in practice. The chapter describes a range of illustrative examples of how technologies are being used to meet the personalised learning agenda.

Section I: Infrastructural and Cultural Issues

Chapter 2: Breaking the Hierarchy: Democratising the Institutional Webspace. Beth Granter. This chapter, inspired by direct experience from working on the development of the University of Sussex's Student Personal Learning and Social Homepages (SPLASH) project, discusses how 'Web 2.0' technologies can be used to make institutional websites more democratic. The SPLASH project was non-typical in that it intended to create an environment which would be fully customisable by the learner, so that no content was obligatory. Examples from working on this project are used to illustrate benefits which can be gained from, and barriers to the uptake of, more open publishing methods and an organically structured site architecture. Issues affecting learners, tutors, the institution as a whole, and how the power dynamic between all three may change, are discussed. Parallels are drawn between teaching methods online and those offline, both traditional and modern.

Chapter 3: *PLE: A Brick in the Construction of a Lifelong Learning Society.* Sabrina Leone. The attainment of lifelong learning objectives is being mediated by a complex process of innovation in education and society, by the integration of institutional actions and by the major role of coordination that

university has assumed. The revolution that technology has engendered in every field has flowed into a rethinking of knowledge, knowledge management, teaching and learning, networks and the individual. The knowledge society requires new roles and skills, new forms of communication and a new awareness as 'active citizens'. Consequently, the shifting role of education systems in networked organisations is decisive in order to support learners in forming diverse personal learning networks to deeply understand complex fields. This chapter aims to discuss consistency and effectiveness of a personal learning environment as a new learning space and to highlight its contribution and relevance to lifelong learning. PLE critical points and approaches will be discussed exploiting three case studies.

Chapter 4: *Community@Brighton: The Development of an Institutional Shared Learning Environment.* Stan Stanier. This chapter details the implementation of a university-wide social networking platform 'Community@Brighton' - using the open source Elgg platform and describes the technical, institutional and educational issues arising from the two years of experience in running the platform. The strategic vision of providing a social network platform alongside an institutional VLE to provide an integrated Shared Learning Environment is also explored, including key case studies and discussion on the challenges such technologies place on existing models of online learning and teaching.

Chapter 5: *ELearning: Institutional Provision and Student Expectations.* Barbara Newland and Maria-Christiana Papaefthimiou. Students who have grown up in the digital age have certain expectations for learning in Higher Education. The divide between the institutional eLearning provision and the expectations of students (who have grown up in a digital world) was highlighted through the UK eLearning benchmarking exercise. Institutional eLearning provision and processes within the HE sector are investigated and analysed through this exercise, which was led by the Higher Education Academy in collaboration with the Joint Information Systems Committee. This chapter presents the experience of two UK Universities, Bournemouth and Reading, whose participation in the benchmarking exercise provides examples of institutional provision. Subsequent Pathfinder funding enabled them to build on their strengths with projects aimed at narrowing the divide between student expectations of eLearning and institutional provision.

Chapter 6: *Personalising Teaching and Learning with Digital Resources: DiAL-e Framework Case Studies*. Kevin Burden and Simon Atkinson. This chapter describes the ways in which individual academics have sought to realise a degree of personalisation in their teaching practice through their engagement with the DiAL-e Framework (Digital Artefacts for Learner Engagement). The DiAL-e Framework is a new conceptual model, articulated as a paper-based and web-based tool, for designing learning engagements. The policy and theoretical context, evolution of the framework and the methodology used to utilise the framework with academic staff seeking to personalise the learning experience is outlined. Details of three case studies resulting from this early work are described and conclusions drawn as to how such frameworks might assist staff in thinking about personalised learning scenarios.

Chapter 7: *Personalised eLearning in Further Education*. Elfneh Udessa Bariso. Electronic media can contribute to personalisation of learning both in formal and informal contexts. Efforts are made both at individual and organisational levels in Further Education to harness new technologies to enhance personal learning experiences. This study was conducted to assess the extent to which eLearning resources promote integrative/explorative learner-centred Computer Assisted Language Learning (CALL). This chapter reports on the findings of a qualitative action research project involving one-to-one interviews with learners at the College of North East London on their deployment of various new technologies in ESOL studies during the academic year 2007/8. The results of the study suggest that new technologies promote personalised learning when applied with careful planning even among learners who appear to

be technophobic or are reluctant to use e-resources. Barriers hindering the integration of e-resources into the curriculum are discussed and possible solutions are also suggested.

Section II: Pedagogical Issues

Chapter 8: *The Impact of Interactive and Collaborative Learning Activities on the Personalised Learning of Adult Distance Learners*. Richard Hall, Steve Mackenzie and Melanie Hall. The adoption across higher education of participatory, collaborative and connective 'read/write web' tools and synchronous classrooms has the potential to extend learner engagement and motivation. Embedding these user-centred tools within curriculum practices offers the possibility for a sixth-generation iteration of distance learning that frames a learner-focused pedagogy. This pedagogy is underpinned by problem-based activities that pivot around a cycle of needing/wanting, doing, digesting and feedback. They are supported by a facilitating tutor taking a connectivist approach to stimulate learning. This chapter highlights both the drivers for this sixth-generation iteration and the subsequent development of a model know as SCORE 2.0, or *Synchronous Community Orientated Reflective and Experiential 2.0*. The impact of this model on two cohorts of adult distance learners is discussed, in order to evaluate opportunities for future pedagogical development.

Chapter 9: *Blogs and the e-Flective Practitioner: Professional not Confessional.* Paul Lowe and Margo Blythman. In a context of mass higher education it can be a challenge to build a reasonable level of personalised learning into the student experience. This chapter explores the relationship between personalised learning, reflection and the use of blogs in the building of a collaborative learning community through opportunities to build professional identity. A postgraduate programme in the media school at the London College of Communication, University of the Arts London uses Web 2.0 tools on the photography programme, in particular blogs, in developing reflective practitioners within a collaborative community of practice. The unique opportunities presented by live blogs in opening up the process of articulating experience into learning, enhance what is characterised as the 'E-flective practitioner'.

Chapter 10: *Building Practitioner Skills in Personalised eLearning: Messages for Professional Development*. Ruth Pilkington. The chapter suggests the implementation of personalised learning within Higher Education (HE), raises fundamental issues and challenges when developing academic staff to support this form of learning and explores some of the challenges raised. It discusses the value of personalised learning for professional development in particular within the context of UK Professional Standards for HE staff. The chapter uses a case study to illustrate the issues and solutions offered by personalised eLearning and identifies particular issues of literacy, prior learning and comfort with respect to online delivery that need to be recognised for both developers and professional learners. The case study draws on a Joint Informations Systems Committee funded project under the RePRODUCE banner and compares findings with existing traditional means of developing staff, as well as discussing the processes represented and the contributions that can be made when personalising learning more widely within HE.

Chapter 11: *Using ePortfolios in Higher Education to Encourage Learner Reflection and Support Personalised Learning*. Susi Peacock, Kate Morss, Alison Scott, Jane Hislop, Lindesay Irvine, Sue Murray and Simon Girdler. Personalisation, with an emphasis on learner choice and lifelong learning, challenges educators to provide an innovative, student-centric educational experience. New technologies have great potential to support personalisation; however, institutions must review their approaches to assessment and feedback and their strategies to learning and teaching as well as increasing opportuni-

ties for collaborative learning and extending their external partnerships. This is a significant agenda for any institution. In this chapter, through four case studies drawn from different subject areas in a higher educational institution, ePortfolios are integrated into the curriculum and combined with reflection to support personalised learning. The challenges of such an approach are discussed including lack of learner engagement with the reflective process, an increase in tutor time, restricted learner access to technology and the need for dynamic ePersonalisation. Suggestions are offered for educators in addressing such issues in order to provide a truly personalised learning experience.

Chapter 12: *Personalised Learning: A Case Study in Teaching Clinical Educators Instructional Design Skills.* Iain Doherty and Adam Blake. This chapter considers personalised learning in the context of delivering a specialist postgraduate course. It describes the pedagogical theory underlying the course design and our experience of delivering a course with particular reference to the personalised learning process that this course design facilitated. Research results for the student experience and discuss changes made to the course as a result of student feedback are presented. Reference is made to the introduction of student-led modules to further personalise the students' learning experience. The course ClinEd 711 is a specialist postgraduate course with low student numbers; with this in mind the implications of our pedagogical approach for those educators involved in teaching larger classes is considered. The chapter concludes with a discussion of the role of the educator in personalised learning.

Chapter 13: *Research-Led Curriculum Redesign for Personalised Learning Environments: A Case Study in the Faculty of Information Technology.* Len Webster, Patricie Mertova, Kim Styles and Lindsay Smith. This chapter provides a case study outlining strategies which represent a starting point in the development of a personalised learning environment (PLE). The initial strategies focus on student engagement in two units run by the Faculty of Information Technology at Monash University, Australia. The case study looks at changing the approach to a more personalised learning environment in the respective IT units, and it also outlines how the changes were made based on a meta-analysis research of the Australian Course Experience Questionnaire (CEQ).

Chapter 14: *Video-Enriched Learning Experiences for Performing Arts Students: Two exploratory Case Studies.* Alberto Ramirez Martinell and Julie-Ann Sime. To close the gap between formal education and professional practice, Higher Education (HE) practitioners need to be aware of the importance of offering realistic learning scenarios where students can profit from personalised learning opportunities and meaningful learning. In this chapter, the extent to which viewing video recordings of the individual performances of dance and music students benefited the learning process are studied. Evidence is gathered from two groups of undergraduate performing arts students at a HE institution in the UK, and from their corresponding teachers, who independently offered their students a personalised way of accessing visually relevant feedback on their performances via a virtual learning environment. Results suggest that this access to personalised learning facilitated critical reflection and learning from experience. It has enabled the students to reposition themselves in relation to their actual performance, fostered their will to learn, and reaffirmed them as potential professional performers.

Chapter 15: *Enabling Personalised Learning through Formative and Summative Assessment.* Neil Gordon. This chapter considers some ways in which personalised learning can potentially be delivered by means of appropriate assessment and the use of associated technologies. Recognising that for many students, learning is driven by summative assessment, the chapter considers how by blending summative and formative assessment, students can be encouraged to develop and take responsibility for their own learning along with ways in which technology can make this assessment tailored to the individual student. The approaches described can support and encourage self-regulated learning - itself an effective

way of providing the more general concept of student-centred learning. The framework of learning that is engendered - with the use of technology - has the potential to allow an educational pathway which reflects individual students' needs and aptitudes, and which can thus provide a form of personalised learning. This chapter describes some of the relevant theory, which forms the context within which this work is based and has developed, then illustrates two case studies where this blend of formative and summative assessment is described and analysed. This is followed by a discussion of some of the more general issues.

Section III: Technological Issues

Chapter 16: *"You Can Take Out of it What You Want": How Learning Objects within Blended Learning Designs Encourage Personalised Learning.* Debbie Holley, Lyn Greaves, Claire Bradley and John Cook. This chapter shows how a suite of learning objects were developed by the Centre for Excellence in Teaching and Learning for Reusable Learning Objects, one of 74 CETLs being funded by the UK's Higher Education Funding Council for England. The learning objects were used to support students within a blended learning context. It focuses on two case studies at UK Higher Education institutions that demonstrate any time, any place learning. London Metropolitan University and Thames Valley University, have both used and reused learning objects in different contexts. In each case study the background and the resulting blended learning design is outlined, followed by evaluation data illustrating the student experience and how the learning design and the learning objects have encouraged personalised learning. The chapter concludes with the start of the third iteration of use - to facilitate informal learning 'anywhere', through the incorporation of learning objects that can be used on mobile phones.

Chapter 17: *Into the Great Wide Open: Responsive Learning Environments for Personalised Learning.* Dirk Thissen, Volker Zimmermannn and Tilman Küchler. Personalisation is a key requirement to motivate learners to use learning technology and self-paced content. Whereas most research and technologies focus on personalisation of content, this chapter focuses on the personalisation of the tools and platform technologies for learning. When designing a learning environment, most organisations worked in the past on their internal business processes and content but did not focus on what the learner really does with the learning tools the organisation provided to them. Changing the perspective to the user shows, that they create today 'around the organisational solutions' their own technology-enhanced learning world using a whole set of technologies: Learning management system (LMS) of the company, of a further education institution or of a university, different social network platforms, search engines, open web services in the internet like blogs or wikis, and a lot more other applications. Therefore the challenge for organisations today is how they can manage this variety of technologies by also enforcing the creativity and motivation of the users to personalise and individualise their learning environment.

Chapter 18: *Personalisation and the Online Video Narrative Learning Tools V-ResORT and the ViP.* Gordon Joyes. This chapter describes two tools for personalised learning that were outcomes of projects led by the author for use in educational settings. These are the Virtual Resources for Online Research Training (V-ResORT) and the Virtual Interactive Platform (ViP) learning tools. The former was designed to support post graduate research students to develop an understanding of educational research through an exploration of researcher video narratives. The latter was designed to support online communities in sharing and critiquing videos of practice. These tools support the development of a learner identity characterized by proactive participation in construction and reconstruction of knowledge rather than pure

consumption. This involves an engagement with communities of practice which it is argued is central to personalised learning.

Chapter 19: *Shared Spaces and 'Secret Gardens': The Troublesome Journey from Undergraduate Students To Undergraduate Scholars via PebblePad.* Marina Orsini-Jones. This chapter illustrates a curricular intervention carried out at Coventry University (UK) with undergraduate students reading English. It explores how the students maximised their use of the tools available within the ePortfolio software PebblePad. It discusses how the software tools were used to enhance and personalise the students' learning experience and engage in the discourse of 'becoming researchers'. It proposes that the use of some ePortfolio tools helped many students to become critical and to actively engage in their ontological journey of transition to becoming independent thinkers. However it also reports that some problematic issues surfaced following the implementation of the curricular action: some students find active learning and active engagement in the scholarship of research 'troublesome'. Finally this chapter gives consideration to how to integrate the lessons learned from this experience into the curriculum for students.

Chapter 20: *Physical Metaphorical Modelling with LEGO as a Technology for Collaborative Personalised Learning.* Stuart Nolan. LEGO Serious Play is a business development process where users build metaphorical models from LEGO bricks in order to explore and share their perceptions of various aspects of their working lives. They model important symbolic elements of their personality, emotions, working practices, organization, and the relationships between these elements in order to share stories that aid the construction of organizational knowledge. This chapter reports on trials using LEGO Serious Play with HE students from a range of subject areas who used metaphorical modelling to articulate their learning autobiographies, current situations, orientations to learning, and aspirations. The models helped students make informed choices and helped staff to understand their needs and personalise the learning provision appropriately.

Chapter 21: *Using ePortfolios to Evidence Practice Learning for Social Work Students.* Samantha Osborne, Ruben Martin and Louise Frith. The University of Kent is piloting the use of ePortfolios in a number of departments and took the opportunity to investigate whether they could improve communication and collaboration between student, placement supervisor and academic tutors whilst students are out on work-based placement. The chapter discusses the adoption of a Personalised Learning Environment for recording assessed practice and how the tools provided can enhance the different categories of users' experiences both in terms of reflective practice and personal development. The chapter gives a background to the pilot and describes the different profiles of each user group which are students, academic staff, practitioners, and other stakeholders. It examines to what extent the pilot is in line with UK government initiatives such as the Leitch Review and Burgess Report and research into the use of ePortfolios for reflection; the issues surrounding the introduction of new technology to non-traditional students and outside organizations; how technology has changed student and practitioner's perceptions and expectations in the production of a collaborative body of evidence; and the future pedagogical implications of using technology with Social Work students and practitioners.

Chapter 22: *Effective Assignment Feedback through Timely and Personal Digital Audio Engagement.* Anne Nortcliffe and Andrew Middleton. Audio feedback is a method which can provide rich, personal and detailed feedback that can convey more than the written word. This is particularly achieved through the capturing of the expressive quality of the speaker's voice. Audio feedback has the potential to promote student engagement in the feedback process, as it is not associated with the negative connotations of written feedback. This chapter draws upon the growing literature base and recent research. It

indicates how different approaches to using audio technology can enhance the learning experience and the feedback process through its personal and timely qualities. The chapter concludes with guidelines and suggestions for best practice for the implementation of audio feedback.

Chapter 23: *Contemporary Music Students and Mobile Technology.* Thomas Cochrane. Five billion songs, and counting, have been downloaded (completely legally) through Apple Computer's online iTunes Store. The iTunes University links free educational content from over seventy tertiary institutions worldwide, and is now available to New Zealand tertiary institutions. The Internet has revolutionised the delivery and access of media and education - making access to a worldwide audience or market merely a Google (or iTunes Store) search away! But, what are the real-world practicalities of this for contemporary music students and teachers today? How can these tools be utilised to facilitate personalised learning environments. Within this context, this chapter presents and evaluates a mobile learning case study at Unitec in the Diploma of Contemporary Music on the Waitakere campus.

CONCLUSION

Technology and the Web are valuable resources, enriching the educational resources we provide already. The key is providing appropriate environments and then reinforcing the experiences with concrete activities. It is important that eLearning is recognised as a supplement to the personal interaction provided by lecturers, teachers, parents and peers, not a replacement.

Technology provides opportunities never before available - such as remote global communication and file sharing, reflection, consolidation, collaboration and exploration, simulation and active independent individualised learning. Yet school, college and university departments are in danger of sabotaging - through incomplete and, in some cases, detrimental implementation plans - the power of technology to transform the teaching and learning process.

The twenty-three chapters included in this book were selected from a large number of submissions. They cover vastly different subjects, group sizes and institutional types - music to social, whole class to individual delivery and engagement, large universities to small departments, undergraduate to post graduate. They are driven by the passion of the staff involved to 'make a difference', not by simply using technology, but by applying technology in an innovative way to enhance, enrich and extend the learning in which our students are involved.

The book presents case studies, research findings, developments and interventions which will provide guidelines and benchmarks with which the reader will be able to see how, why and where their own implementation of technology is either struggling or 'not making a difference' within the context of personalised learning.

My fervent hope is that this book will make a difference to the many classrooms of computers and technology which increasing pervade and saturate our educational institutions and the lack of 'real' or meaningful learner engagement provided by this intrusion.

John O'Donoghue
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ENDNOTE

[1] Turkle, S. (1984). *The Second Self: Computers and the Human Spirit.* New York: Simon and Schuster.