This Handbook was prepared by:

Gregor Kennedy, The University of Melbourne
Barney Dalgarno, Charles Sturt University
Sue Bennett, The University of Wollongong
Kathleen Gray, The University of Melbourne
Jenny Waycott, The University of Melbourne
Terry Judd, The University of Melbourne
Andrea Bishop, Charles Sturt University
Karl Maton, The University of Sydney
Kerri-Lee Krause, Griffith University
Rosemary Chang, The University of Melbourne

Project Website: www.netgen.unimelb.edu.au

Support for this project has been provided by the Australian Learning and Teaching Council, an initiative of the Australian Government Department of Education, Employment and Workplace Relations. The views expressed in this report do not necessarily reflect the views of the Australian Learning and Teaching Council Ltd.

This work is published under the terms of the Creative Commons Attribution-Noncommercial-ShareAlike 2.5 Australia Licence. Under this Licence you are free to copy, distribute, display and perform the work and to make derivative works.

Attribution: You must attribute the work to the original authors and include the following statement: Support for the original work was provided by the Australian Learning and Teaching Council Ltd, an initiative of the Australian Government Department of Education, Employment and Workplace Relations.

Noncommercial: You may not use this work for commercial purposes.

Share Alike: If you alter, transform, or build on this work, you may distribute the resulting work only under a licence identical to this one.

For any reuse or distribution, you must make clear to others the licence terms of this work.

Any of these conditions can be waived if you get permission from the copyright holder.

To view a copy of this licence, visit http://creativecommons.org/licenses/by/2.5/au/ or send a letter to Creative Commons, 543 Howard Street, 5th Floor, San Francisco, California, 94105, USA.

Requests and inquiries concerning these rights should be addressed to the Australian Learning and Teaching Council, PO Box 2375, Strawberry Hills NSW 2012 or through the website: http://www.altc.edu.au

2009

ISBN 9780734040732
# Table of Contents

Acknowledgements .................................................................................................................. 4
Executive Summary .................................................................................................................. 5
1. Brief Project Outline ............................................................................................................. 7
2. Background Literature ......................................................................................................... 8
   2.1 The Net Generation in Higher Education: Technology Use and Skills ......................... 8
   2.2 Living and Learning in the Digital Age ........................................................................... 9
   2.3 Using Emerging Technologies in Higher Education ..................................................... 10
   2.4 Emerging Technologies and the Net Generation in Higher Education ......................... 11
   2.5 Summary and Project Aims .......................................................................................... 12
3. Investigating the Net Generation ......................................................................................... 15
   3.1 Rationale and Method .................................................................................................. 15
   3.2 Demographic Data ....................................................................................................... 15
      3.2.1 Staff and student survey data ................................................................................ 15
      3.2.2 Staff and student interview data .......................................................................... 16
   3.3 Descriptive Findings ..................................................................................................... 16
      3.3.1 Students’ access to hardware ................................................................................ 16
      3.3.2 Students’ access to the Internet ............................................................................ 17
      3.3.3 Students’ use of mobiles ....................................................................................... 17
      3.3.4 Students’ traditional use of the web ..................................................................... 17
      3.3.5 Students’ use of Web 2.0 technologies ................................................................. 17
      3.3.6 Students’ skills with technology ............................................................................ 18
   3.4 Use of Technology Comparisons .................................................................................... 19
      3.4.1 Comparisons between the ‘Natives’ and the ‘Immigrants’ ....................................... 19
      3.4.2 Comparisons between universities and disciplines ................................................. 20
      3.4.3 Demographic comparisons ................................................................................... 20
   3.5 Usefulness of Technology in Higher Education .............................................................. 21
      3.5.1 Students’ perceptions of the usefulness of technology .......................................... 21
      3.5.2 Staff perceptions of the usefulness of technology .................................................. 21
      3.5.3 Comparisons of student and staff perceptions of the usefulness of technology .... 23
   3.6 Summary ......................................................................................................................... 23
4. Implementing Emerging Technologies ................................................................. 25
   4.1 Rationale and Method ................................................................................. 25
   4.2 The Implementation Case Studies .............................................................. 27
      Case 1: Blogging: Student reflective journals in teacher education ................ 27
      Case 2: Blogging: Student publishing in first-year journalism ....................... 30
      Case 3: Teacher provocateur and collaborative writing through wikis in psychology 33
      Case 4: Creating a shared image resource in first-year chemistry .................. 37
      Case 5: Creating a shared image resource in biology ...................................... 40
      Case 6: Creating an image collection in environmental education .................. 43
      Case 7: Student-generated podcasts in medical education ............................. 46
      Case 8: Students sharing online resources through social bookmarking ............ 49
   4.3 Implementation Considerations .................................................................. 52
      4.3.1 Pedagogical considerations .................................................................. 52
      4.3.2 Technical considerations .................................................................... 52
      4.3.3 Administrative considerations ............................................................. 53
5. Guidelines for Practice .................................................................................... 54
   5.1 Developing Knowledge and Understanding ................................................. 54
   5.2 Creating Content and Independent Research ............................................... 56
   5.3 Evaluating Others ...................................................................................... 58
   5.4 Critical Self-Reflection .............................................................................. 60
   5.5 Working in Groups .................................................................................... 61
   5.6 Assessing Learning ................................................................................... 64
6. Guidelines for Policy ....................................................................................... 68
   6.1 Preamble .................................................................................................... 68
   6.2 Student Learning ....................................................................................... 69
   6.3 Diversity, Equity and Access ....................................................................... 70
   6.4 Curriculum and Assessment ..................................................................... 72
   6.5 Academic Integrity .................................................................................... 74
   6.6 Staff Development and Capacity Building .................................................. 75
   6.7 ICT Infrastructure ..................................................................................... 77
   6.8 Conclusion ............................................................................................... 78
Acknowledgements

The Project Team wishes to thank the many students and staff from The University of Melbourne, the University of Wollongong and Charles Sturt University who completed surveys and took part in focus groups and interviews during the Investigation stage of the project.

The implementation projects were made possible by the involvement and support of a number of teaching staff members and technical developers whose contribution is acknowledged in Section 4 of this handbook.

In addition we wish to thank students and staff who participated in the learning activities, completed evaluation surveys, and took part in focus groups and interviews following the implementation projects.

We would also like to thank the following colleagues who have provided advice and contributed to the research: Tom Petrovic, Greg Nelson, Anna Churchward, Wai Chan, Billy Lee, Michelle Park, Rita Brien, and other colleagues in the Biomedical Multimedia Unit, Faculty of Medicine, Dentistry and Health Sciences at the University of Melbourne; Rebecca Mutton, Penny Cooke, and Cathy Car at Charles Sturt University; and Rainbow Chen, Jennifer Jones, Lisa Kosta, and Linda Corrin at the University of Wollongong.

In addition we would like to acknowledge the support of the project Steering Committee:

Associate Professor Rob Phillips,
Teaching and Learning Centre, Murdoch University

Professor Peter Goodyear,
Faculty of Education and Social Work, University of Sydney

Professor John Hedberg,
Department of Education, Macquarie University

Dr Elizabeth McDonald,
Australian Learning and Teaching Council.