

Cross-national Information and Communication

# Technology

Policy and Practices in

# Education



edited by

**Tjeerd Plomp, Ronald E. Anderson, Nancy Law,  
and Andreas Quale**



A VOLUME IN RESEARCH IN  
EDUCATIONAL POLICY: LOCAL,  
NATIONAL, AND GLOBAL PERSPECTIVES



# **Cross-National Information and Communication Technology**

**Policies and  
Practices in Education**

**Revised Second Edition**

*Ronald E. Anderson*  
*University of Hong Kong*

and

*Andreas Quale*  
*University of Oslo, Norway*

*A volume in*  
**Research in Educational Policy:**  
**Local, National, and Global Perspectives**

*Series Editor:*  
**Kenneth K. Wong, *Brown University***

**Library of Congress Cataloging-in-Publication Data**

Cross-national information and communication technology policies and practices in education : editors Tjeerd Plomp ... [et al.].

p. cm. -- (Research in educational policy)

ISBN 1-59311-018-9 (Paperback) -- ISBN 1-59311-019-7 (hardcover)

1. Educational technology--Cross-cultural studies. 2. Information technology--Cross-cultural studies. I. Plomp, Tj. II. Series.

LB1028.3.C764 2003

371.33--dc21

2003010763

Copyright © 2003 Information Age Publishing Inc.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the publisher.

Printed in the United States of America

# CONTENTS

---

Foreword		
<i>Seamus Hegarty</i>		ix
Preface		
<i>Tjeerd Plomp, Ronald E. Anderson, Nancy Law, and Andreas Quale</i>		xi

## PART I: SUMMARY CHAPTERS

1. Introduction		
<i>Ronald E. Anderson and Tjeerd Plomp</i>		3
2. Curriculum and Staff Development for ICT in Education		
<i>Nancy Law</i>		19
3. Trends in Instructional ICT Infrastructure		
<i>Geir Ottestad and Andreas Quale</i>		41

## PART II: COUNTRY CHAPTERS

4. National Policies and Practices on ICT in Education: <i>Australia</i>		
<i>John Ainley</i>		67
5. National Policies and Practices on ICT in Education: <i>Belgium</i>		
<i>Brigitte Denis, Martin Valcke, and Johan van Braak</i>		83
6. National Policies and Practices on ICT in Education: <i>Brazil</i>		
<i>Fredric M. Litto</i>		103
7. National Policies and Practices on ICT in Education: <i>Canada</i>		
<i>Tom Rich</i>		119

vi CONTENTS

8. National Policies and Practices on ICT in Education: *Catalonia (Spain)*  
*Ferran Ruiz Tarragó* 135
9. National Policies and Practices on ICT in Education: *Chile*  
*J. Enrique Hinostroza, Pedro Hepp, and Cristián Cox* 153
10. National Policies and Practices on ICT in Education: *China Hong Kong*  
*Nancy Law* 171
11. National Policies and Practices on ICT in Education: *China, People's Republic of*  
*Hu Jun and Nancy Law* 189
12. National Policies and Practices on ICT in Education: *Chinese Taipei*  
*Janet Mei-Chuen Lin, Cheng-Chih Wu, and Guey-Fa Chiou* 205
13. National Policies and Practices on ICT in Education: *Cyprus*  
*Constantinos Papanastasiou and Lefkios Doratis* 221
14. National Policies and Practices on ICT in Education: *Denmark*  
*Anne Larson* 237
15. National Policies and Practices on ICT in Education: *England*  
*Margaret J. Cox* 257
16. National Policies and Practices on ICT in Education: *Estonia*  
*Anu Toots, Mari Plakk, and Tõnu Idnurm* 279
17. National Policies and Practices on ICT in Education: *Finland*  
*Marja Kankaanranta* 297
18. National Policies and Practices on ICT in Education: *France*  
*Catherine Régnier* 315
19. National Policies and Practices on ICT in Education: *Germany*  
*Renate Schulz-Zander and Birgit Eickelmann* 331
20. National Policies and Practices on ICT in Education: *Hungary*  
*Andrea Kárpáti and Ádám Horváth* 349
21. National Policies and Practices on ICT in Education: *India*  
*Utpal Mallik* 369
22. National Policies and Practices on ICT in Education: *Ireland*  
*Paul F. Conway and Eileen Brennan-Freeman* 383
23. National Policies and Practices on ICT in Education: *Israel*  
*Rafi Nachmias, David Mioduser, Alona Forkosh-Baruch, and Dorit Tubin* 403



24. National Policies and Practices on ICT in Education: *Italy*  
*Roberto Melchiori and Renata Picco* 423
25. National Policies and Practices on ICT in Education: *Japan*  
*Masaru Sakayauchi, Hideki Maruyama, and Ryo Watanabe* 441
26. National Policies and Practices on ICT in Education: *Korea,*  
*Republic of*  
*Eun-Soon Oh* 459
27. National Policies and Practices on ICT in Education: *Lithuania*  
*Lina Markauskaite* 475
28. National Policies and Practices on ICT in Education: *Malaysia*  
*Sulaiman Hashim and Hajar Mohd. Nor* 495
29. National Policies and Practices on ICT in Education: *The*  
*Netherlands*  
*Alfons ten Brummelhuis, Keimpe de Heer, and Tjeerd Plomp* 515
30. National Policies and Practices on ICT in Education: *New*  
*Zealand*  
*Murray Brown and Megan Chamberlain* 533
31. National Policies and Practices on ICT in Education: *Norway*  
*Ola Erstad and Andreas Quale* 551
32. National Policies and Practices on ICT in Education: *Philippines*  
*Ester B. Ogena and Filma G. Brawner* 569
33. National Policies and Practices on ICT in Education: *The*  
*Russian Federation*  
*Alexei L. Semenov* 585
34. National Policies and Practices on ICT in Education: *Singapore*  
*Thiam Seng Koh, Sai Choo Lee, and Seau Fah Foo* 601
35. National Policies and Practices on ICT in Education: *The Slovak*  
*Republic*  
*Viera Blahova* 619
36. National Policies and Practices on ICT in Education: *Slovenia*  
*Barbara Neža Brečko* 637
37. National Policies and Practices on ICT in Education: *South*  
*Africa*  
*Seugnet Blignaut and Sarah Howie* 653
38. National Policies and Practices on ICT in Education: *Sweden*  
*Peter Karlberg* 671

viii CONTENTS

39. National Policies and Practices on ICT in Education: <i>Thailand</i> <i>Pornpun Waitayangkoon</i>	681
40. National Policies and Practices on ICT in Education: <i>United States of America</i> <i>Ronald E. Anderson and Sara Dexter</i>	697
About the Editors and Authors	715

## CHAPTER 28

---

# NATIONAL POLICIES AND PRACTICES ON ICT IN EDUCATION

## *Malaysia*

**Sulaiman Hashim and Hajar Mohd. Nor**

---

### STRUCTURE AND NATURE OF THE EDUCATION SYSTEM

Malaysia is located in South East Asia, which is one of the world's most rapidly developing regions. In 1992, Malaysia set itself the goal of becoming a fully developed nation by the year 2020. The vision implicit in this goal is known as Vision 2020. Realization of such a vision in a multi-ethnic country like Malaysia requires the support of every ethnic group and a stable political climate, conditions that Malaysia has long enjoyed.

At the turn of the century, Malaysia faces challenges such as globalization, the liberalization of its economy, and the development of information and communication technologies (ICT). To meet these new challenges, Malaysia needs educated and skilled citizens. In its efforts to

---

*Cross-National Information and Communication Technology: Policies and Practices in Education, Second Edition*, pp. 497–515

Copyright © 2009 by Information Age Publishing

All rights of reproduction in any form reserved.