The Second International Handbook of Information Technology in Primary and Secondary Education

Joke Voogt, Gerald, Knezek, Rhonda Christensen & Kwok-Wing Lai
International Handbook of Information Technology in Primary & Secondary Education
Voogt & Knezek, 2008

> 200,000 CHAPTER DOWNLOADS (mid 2016)
Aim
Synthesis of research on ICT in education from a broad international perspective
Handbook & EDUsummIT

Fostering learning in the digital age

practice

policy

research
Closing gaps between research policy and practice
11 sections (15 section editors) & 76 chapters (136 authors from 23 countries)
Aim of the 2nd edition
Update of research on ICT in education including emerging research topics from a broad international perspective
19 section editors, > 100 authors
± 78 chapters, ± 20 countries
UNESCO Paris 2016
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Section 1
Curricular Challenges of the 21st Century

Editors:
Joke Voogt, University of Amsterdam (Netherlands) &
Ola Erstad, University of Oslo (Norway)
Chapters in Section 1

1. **Curriculum** in the 21st Century: Issues and challenges
2. **New literacies** and its implications for the curriculum
3. **Computer science** and **computational thinking** in the curriculum: Research and practice
4. **Digital citizenship** and **social media**: A curriculum perspective
5. **Computer literacy** in the curriculum: Are students computer literate?
6. **Coherence** in young people’s social ecologies of learning and identity building
Section 2
Learners and the Learning Processes

Editors:
Kwok-Wing Lai & Keryn Pratt,
New Zealand
Chapters in Section 2

1. Learners and the **digital learning processes**: Research and practice in technology-enhanced learning
2. **Theoretical perspectives** influencing the use of information technology in teaching and learning
3. **Computer-supported collaborative learning** – Mediated and co-present forms of learning
4. and **Inquiry-based learning**
5. **Cultural and social issues** in using **social media** to support learning
6. **Informal and lifelong learning**
Section 3
Attitudes, Competencies and Dispositions for Learning and Teaching with Information Technology

Editors:
Gerald Knezek (US) & Rhonda Christensen (US)
Chapters in Section 3

1. The Importance of **attitudes**, **competencies**, and **dispositions** for Teaching and Learning with Information Technology

2. Information and communication competences for students

3. The influence of ICT use on students’ information literacy

4. Teachers’ technology adoption: Explanatory models and frameworks for action

5. Psycho-pedagogical constructs that contribute to **effective teaching** with technology

6. **Tools for measuring** teacher attitudes and competencies
Section 4
Professional Learning and Development of Teachers

Editors:
Peter Albion, Australia & Jo Tondeur, Belgium
Chapters in Section 4

1. **Transformation** of educators and education systems through teacher agency
2. **Knowledge base** for ICT in education
3. **Teacher dispositions** for ICT in education
4. **Preparing pre-service teachers** to transform education with ICT
5. **Teacher teams, communities and networks** for learning
6. Connecting research and practice: **Teacher inquiry** and design-based research
7. **Professional development** for flexible, distance and mobile learning
Section 5
The Role of Leadership for Technology in Education

Editor
Sara Dexter, US
Chapters in Section 5

1. The **role of leadership** For technology In education
2. Systems of practice for leadership of IT
3. A **distributed leadership** perspective in technologies for teaching and learning
4. Fostering **teachers’ learning environments** for technology integration
5. **Tools for leaders** to build school-wide capacity to integrate IT For added value
Section 6
Using IT for Assessment: Issues and Opportunities

Editors:
Mary Webb (UK) & Dirk Ifenthaler (Germany)
Chapters for Section 6

1. **Assessment as, for and of** 21st-century learning using IT
2. **Formative assessment** and feedback using IT
3. Progress and challenges for **automated scoring and feedback systems** for large-scale assessments
4. Assessment of **problem solving skills in immersive environments**
5. Making use of **data for assessments**: harnessing analytics and data science
6. Assessment data for **evaluation** and **accountability**
7. A **futures perspective** on IT and assessment
Section 7
Flexible and distance learning

Editors:
Roumen Nikolov, Bulgaria & Kwok-Wing Lai, New Zealand
Chapters in Section 7

1. Distance and flexible learning in the 21st Century
2. Virtual schools: A global perspective
3. Open education resources, MOOCs, and online platforms for Distance and Flexible Learning
4. Online learning communities in K-12 Settings
5. Designing blended, flexible, and personalised Learning
6. Blending virtual and face-to-face learning Experiences through Exploration, Interactive Visualization and Simulation
Section 8
Mobile Learning in the 21st Century

Editors
Cathie Norris, US & Elliott Soloway, US
Chapters in Section 8

• Mobile learning in the U.S.
• Mobile learning – BUT is it mobile? And is it learning?
• Mobile learning in Asia
• Evaluating the educational effectiveness of mobile learning software
• Mobile learning: No Longer about the technology, but about the learning
Section 9
Games and Simulation-Based Teaching and Learning

David Gibson (Australia)
Hiroaki Ogata (Japan)
Games and Simulation-Based Teaching and Learning

- Game-based learning
- Choosing and using games in the classroom
- Games and cognitive ethnography
- Review of Research on simulations, immersive environments
- Makerspaces
- Robots in education
- Digital learning analytics
Section 10
Issues and Challenges Related to Digital Equity

Thérèse Laferrière, Canada &
Paul Resta, US
Chapters in Section 10

- Issues and challenges related to digital equity
- Learning differences and digital equity in the classroom
- Digital inequality in school
- Technology and cultural identity
- Organizing learning environments for relational equity with new digital media
- Technology, equity, and K-12 education in the US
- Digital equity: A socio-critical perspective
Section 11
Paradigms for Researching IT in Education

Editors:
Margaret Cox, (UK) & Joke Voogt, (the Netherlands)
Chapters in Section 11

• Researching IT in education: Meeting the challenges of an ever-changing environments
• Meta – analysis of multiple to large scale data
• Researching the design and evaluation of IT tools for education
• Large scale international studies
• Methods to measure emerging technology impact
• Looking back, moving forward: Impact and measurability of the use of educational technology
• Communicating research impact to policy and practice
Section 12
International Policies on IT in Education

Birgit Eickelmann, Germany
Chapters in Section 12

- IT in educational policy in Europe
- IT in educational policy in Asia
- IT in educational policy in Australia and Oceania
- IT and educational policy in North America
- IT and educational policy in South America
- IT and educational policy in Africa (including the Middle East)
Second International Handbook of Information Technology in Primary and Secondary Education
32 years of “Children in the Information Age”