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
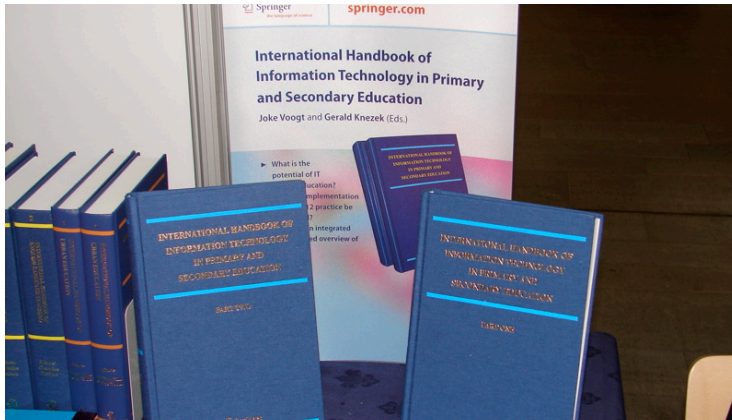## *Voogt & Knezek, 2008*

> 200.000 CHAPTER DOWNLOADS (mid 2016)

Aim

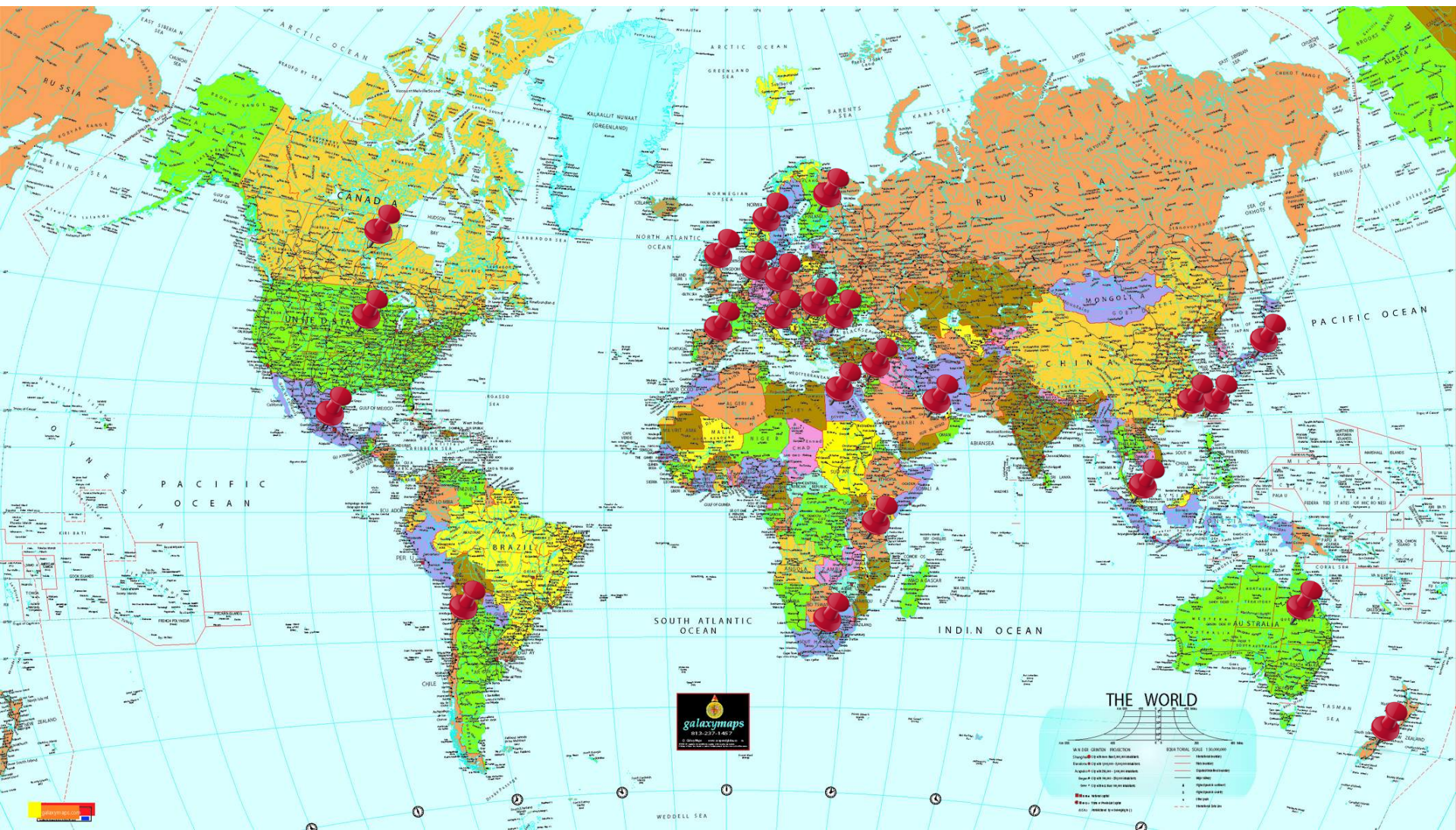Synthesis of research on ICT in education from a broad international perspective

Handbook & EDUsummIT

Closing gaps between research policy and practice

UNESCO, Paris (2006)

11 sections (15 section editors) &
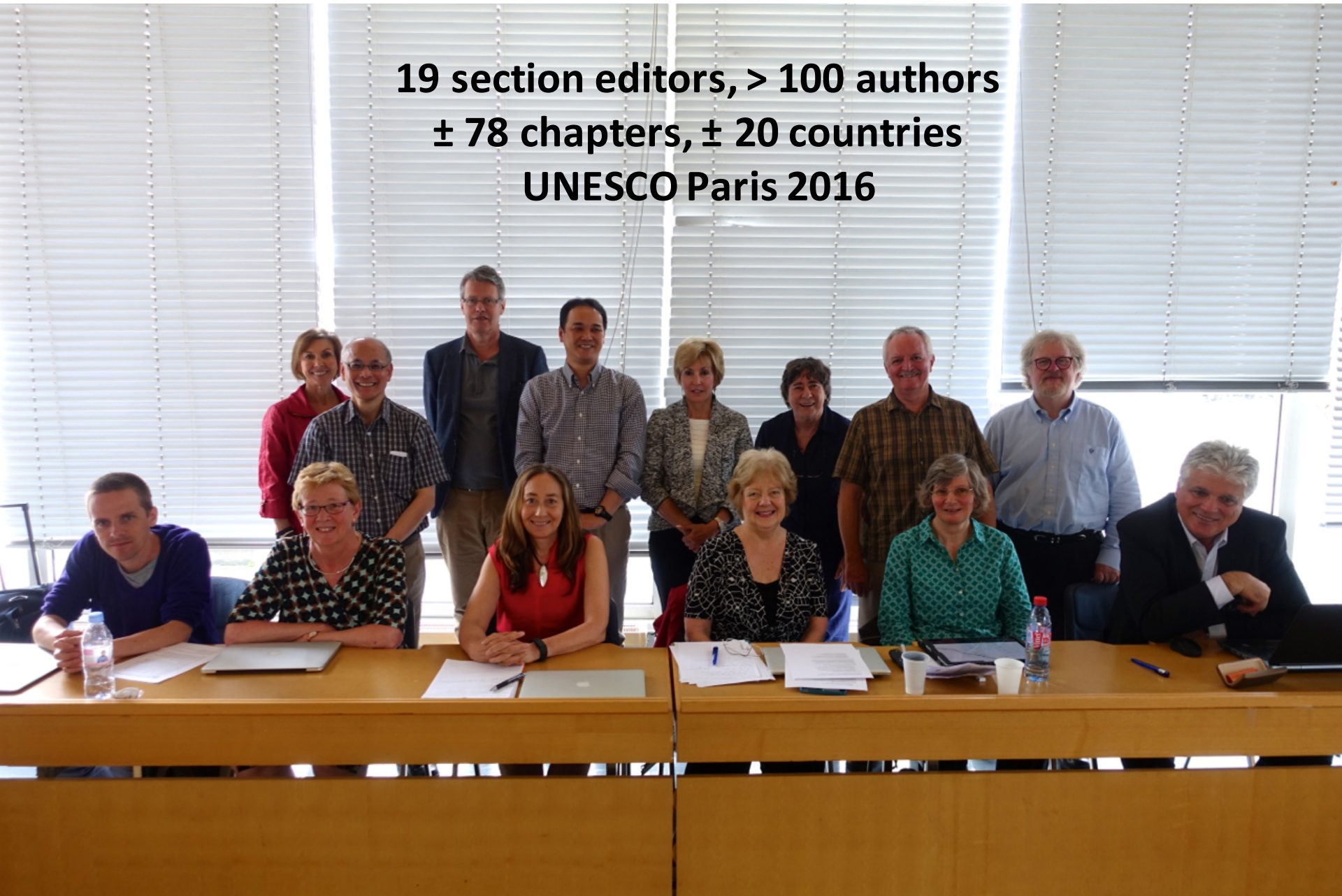# 76 chapters (136 authors from 23 countries)

Gerald Knezek   Rhonda Christensen Joke Voogt Kwok-Wing Lai

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

Sections in the 2n edition
Curricular Challenges of the 21st Century
Learners and the Learning Processes
Attitudes, competencies and dispositions for learning and teaching with IT
Professional learning and development of teachers
The role of leadership for technology In education
Using IT for assessment: Issues and opportunities
Flexible and distance learning
Mobile Learning in the 21st Century: An Overview
Games, simulations & emerging technologies
Issues and challenges related to digital equity
Paradigms for researching IT in education
International Policies on ICT in Education

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 Ameri**ca
- IT and educational policy in **Africa** (including the Middle East)

Joke Voogt

Gerald Knezek

Rhonda Christensen

Kwok-Wing Lai

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Springer

32 years of "Children in the Information Age"