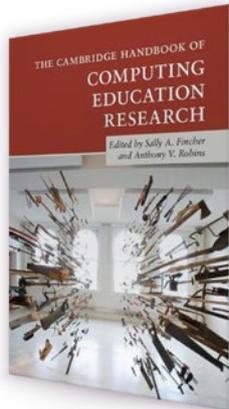# THE CAMBRIDGE HANDBOOK OF COMPUTING EDUCATION RESEARCH

INFO **BY** Sally A. Fincher and Anthony V. Robins (eds.) | **PUBLISHER** Cambridge University Press **PRICE** £44.99 | **ISBN** 978-1-108-49673-5 | **URL** helloworld.cc/handbook

With diverse chapters from world-leading researchers in computing education, *The Cambridge Handbook of Computing Education Research* provides a comprehensive overview of the state of the field today. It places research in context, explains tools, summarises results, and provides links to the literature.

While the handbook is aimed at researchers, the editors attribute the expansion of computing education research in recent years to the introduction of computing in schools, and many sections are relevant and useful for teachers. The chapter 'The History of Computing Education

Research' provides insight into how teaching programming has evolved and is benefiting from research. 'Computational Thinking' contains a timely exploration of a controversial topic. And 'Schools (K-12)' presents an overview of current research on issues such as programming, attitudes, and course design.

It includes sections on pedagogy, learner misconceptions, motivation, and inclusion. Further, the authors of *Learning Sciences for Computing Education* and *Cognitive Sciences for Computing Education* shed light on how computing education can be improved by incorporating insights from related disciplines. **(HW)**

INVENT TO LEARN: MAKING, TINKERING, AND ENGINEERING IN THE CLASSROOM (2ND EDITION)

INFO **BY** Sylvia Libow Martinez and Gary Stager | **PUBLISHER** Construction Modern Knowledge Press | **PRICE** £27.37 | **ISBN** 978-0997554373 | **URL** inventtolearn.com

The second edition of the 'bible' of the classroom maker movement includes new coverage of the micro:bit, Scratch 3.0, littleBits, Hummingbird robotics, laser cutters, equity issues, and lessons from schools around the world.

Martinez and Stager provide educators with the how and the why behind making in the classroom, library, or makerspace.
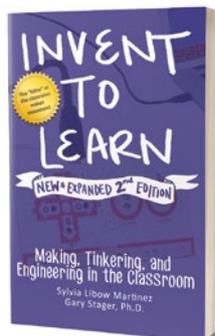
The book features tales of teachers – their successes and failures in fostering a creative spirit in education. It includes thoughts on how to make the case for 'maker-style learning' and a list of resources.

Invent to Learn gives an unparalleled overview of making and learning, placed within the context of existing educational theory and practice. **(HW)**

ESSENTIAL READING

Three titles that explore aspects of the arts in computer games

VIDEOGAMES: DESIGN/PLAY/DISRUPT

BY Marie Foulston (editor)
PUBLISHER V&A
PRICE £19.49
**ISBN** 978-1851779406
URL helloworld.cc/foulston

From blockbuster games to quirky indie titles, this thoughtful catalogue from the V&A's recent video game exhibition explores the place of video games in contemporary culture.

DRAWING BASICS AND VIDEO GAME ART

BY Chris Solarski
PUBLISHER Watson-Gupthill
PRICE £15.74
ISBN 978-0823098477
URL helloworld.cc/solarski

Solarski covers enough art theory to make a start at creating graphics for games, and helps gamers make more sense of the graphics they see.
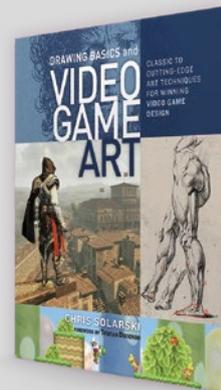
A COMPOSER'S GUIDE TO GAME MUSIC

BY Winifred Phillips
PUBLISHER MIT Press
PRICE £14.99
ISBN 978-0262534499
URL helloworld.cc/phillips

More about the creative challenges and opportunities of composing music for games than a technical manual, this places music composition within the broader context of game development.