Faculty of **Education**
The University of Hong Kong

## Workshop

# A GENTLE INTRODUCTION TO COMPUTER MODELS OF READING


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Macquarie University, Australia



As with all areas of science, researchers are increasingly using computer models in the science of reading. These models are used to describe and simulate the mental processes that support skill reading and its development, and in this capacity are invaluable tools for generating new predictions and guiding research. In this workshop, I will first introduce three general approaches that are used to model cognition and discuss how they have been used to simulate the different components of reading. I will then discuss specific examples of how computer models have been used to address four theoretical questions related to reading: (1) Are eye-movements during reading under cognitive or global control? (2) Is attention allocated to one word or multiple words at any given time during reading? (3) To what extent is the reading of English like the reading of Chinese? (4) How is the identification of words, the processing of sentences, and the representation of discourse coordinated during reading? By addressing these questions, the examples demonstrate how computer models and empirical research can be used in a complementary manner to advance our understanding of reading.


**November 23, 2026 (Monday)**
**09:30 - 12:00**
**Room 550, Meng Wah Complex, HKU**

**About the speaker:**



**Erik D. Reichle** received a Ph.D. in cognitive psychology from the University of Massachusetts, Amherst. He has held positions at Carnegie Mellon University, the University of Pittsburgh, the University of Southampton, and is currently a professor of cognitive psychology at Macquarie University in Sydney, Australia. His research uses computer modelling, eye tracking, and brain imaging to understand the mental processes that support skilled reading, and how those processes are influenced by languages and writing systems.He has published more than 100 articles on these topics, has authored two books, and is currently editing *The Cambridge Companion to the Psychology of Reading.*

All are welcome