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Geiger, Vince; Calder, Nigel; Tan, Hazel; Loong, Esther; Miller, Jodie; Larkin, Kevin
Transformations of teaching and learning through digital technologies.

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Summary: This chapter is a critical synthesis of research related to the transformations that take place when digital technologies are incorporated into teaching and learning practices. In developing this synthesis, research from all levels of education was reviewed with a focus on the opportunities digital technologies offer for cognitive, pedagogical, affective and professional change. The chapter is structured in alignment with *R. Pierce* and *K. Stacey's* [Int. J. Comput. Math. Learn. 15, No. 1, 1–20 (2010; ME 2011a.00331)] map of pedagogical opportunities in which three dimensions for educational transformation were identified: tasks, classroom, and subject. A discussion of future directions for research into technology enhanced mathematics education concludes the review.

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