Chapter 14
Future Digital Imagery

ABSTRACT

The use of digital imagery in e-learning will likely become more widespread and pedagogically sophisticated, both in the near-term and far-term. The technologies for image capture and manipulation will allow more graphical affordances, including uses in 3D, 4D, ambient spaces, augmented realities and augmented virtualities. Visualizations will likely offer a greater variety of functionalities: more aid for real-time decision-making, more complex information streams, and synchronous real-world mitigations of crises and actions. The pedagogical strategies used around images may also grow more supportive of learning, with more shared research and teaching-and-learning experiences. More accurate labeling and storage of e-learning visuals will continue, with additions on both the privately held collections and the publicly shared resources. There may well be greater diversification of the applications of digital imagery capture, authoring, use, and sharing in different learning domains. Ideally, more professional creators of digital imagery will come online from various parts of the world to enhance the shared repository of learning for a global community.

CHAPTER OBJECTIVES

- Project changes in the pedagogical uses of digital imagery
- Consider how visual literacy may evolve
- Discuss the broadening roles of digital imagery in e-learning
- Explore the future of image capture and authoring
- Consider new procedures for quality imagery creation

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- Discuss the future labeling and storage of e-learning visuals
- Reflect on possible global multicultural trends in digital imagery for e-learning
- Mull the changing ethics, laws and practices related to digital imagery in e-learning
- Explore future digital image sharing

INTRODUCTION

Digital Imagery and Informational Graphics in E-Learning: Maximizing Visual Technologies has provided a basic overview of the varied uses of digital imagery in e-learning and offered some strategies to maximize their capture, creation, use and integration in learning contexts. This text has also looked at some pedagogical theories underlying the use of digital imagery, with the intention of broadening the roles of digital imagery in e-learning. This book has highlighted some features of digital image repositories and the progress in making them more searchable. There has also been reflection on multicultural global uses of imagery, for the greatest usability in the highest variety of situations.

This last short chapter explores where this issue may progress in the next few years, with a simple extension of trend lines from the present although this approach does not offer much in the way of true predictability. After all, disruptive technologies will emerge to revolutionize various fields. New applications of extant technologies help people see with new eyes. Research and development (R&D) continues to push the edges of the possible. The speed of changes in digital imagery capture, analysis, authoring, editing, delivery, and storage has been remarkable. The “socio” aspects of socio-technical collaborations should not be short-changed, as people are endlessly inventive and collaborative. The research on human visual perception and memory will also likely surface new ideas. What may be considered “visual literacy” today likely will change as this area of digital imagery in e-learning evolves.

This chapter will consider some basic questions:

- **Pedagogical Research:** What are some areas of pedagogical research that may offer value in considering the role of digital imagery in e-learning? How may pedagogical uses of digital images apply across the virtuality continuum (real environment, augmented reality, augmented virtuality and virtual environment)?
- **Visual Literacy:** What will visual literacy of the future potential look like? What knowledge and skills will need to be known?
- **Applied Roles for Digital Imagery:** What are some innovative applied roles in graphics in e-learning for the near-future? In ambient spaces? Augmented reality? Augmented virtuality? Haptics? Interfaces? What other types of synthesized and new types of digital graphics may be used in e-learning? How may imagery be used further for information extraction? Further information creation? Where is interactive and immersive imagery headed?
- **Capturing Tools:** What cutting-edge capturing and authoring tools may be on the horizon? What types of new devices may appear? Will there be further moves towards ubiquity of capture and sharing?
- **New Procedures for Quality Imagery:** What new procedures may be developed for creating quality imagery?
- **Collaborative Image Creation:** What new ways of collaborative image creation may be forthcoming?
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