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## Extended Reality and the Graphic Design Curriculum

Tina Korani

*San José State University*

Meghan Saas

*Louisiana State University*

Samantha Tan

*San José State University*

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## Extended Reality and the Graphic Design Curriculum

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**Tina Korani\***  
San José State University

**Meghan Saas**  
Louisiana State University

**Samantha Tan**  
San José State University

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As we rapidly move toward a fully virtual world, commercial industries and organizations are becoming increasingly competitive with their communications strategies so that they can continue to attract audiences' attention and break through industry noise. As a result, the notion of “immersive experiences” is becoming more popular. XR technology is at the forefront of delivering unique, immersive and interactive experiences — and it has seen significant growth in recent years across all commercial industries and is poised to continue that trend.

The graphic design industry is embracing XR as a new medium, and XR skills are in high demand within the field. Given the trend in consumer interest and the recent pandemic-fueled shift toward exclusively virtual consumer interaction, AR is poised to be the ideal technological solution for meeting consumer demand and maintaining exciting brand engagement. Graphic

designers must be prepared to meet that demand and craft those digital experiences. Those designers who do invest in AR skills will be in high demand and will contribute to a new era of interactive design.

Institutions of higher education must adopt XR—and particularly AR—into the graphic design curriculum to keep pace with the industry. Several barriers are slowing this curricular adoption but can be overcome through a greater push in education and training of AR technologies, as well as the overall dedication toward investing in the right AR tools.

Advances in AR technology have created an opportunity for its use as both a pedagogical tool and a creative medium. AR is the natural evolution of the digital mockup, and a vital tool in training our next generation of graphic designers. Integrating AR with traditional graphic design elements and

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\*Corresponding Author, Tina Korani  
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principles will improve the learning process and outcomes of design students while elevating the design industry as a whole.

In this presentation we will discuss our paper and findings. We will show two demos, including (1) a branded stationery system for a company, and (2) a poster/banner. We will showcase how these design projects can be visualized in a real-world setting using AR. Through these demonstrations, audiences will understand how AR can elevate the design process from conception to final product.

**Keywords**—*graphic design, augmented reality, extended reality, virtual reality, industry, curriculum, social media, interactive*

## REFERENCES

- Alkhattabi, Mona. 2017. "Augmented Reality as E-learning Tool in Primary Schools' Education: Barriers to Teachers' Adoption." *International Journal of Emerging Technologies in Learning*, 12(2), 91-100. <https://online-journals.org/index.php/i-jet/article/view/6158/4283>.
- Barroso-Osuna, Julio, Juan Jesus Gutiérrez- Castillo, Ma del Carmen Llorente-Cejudo, and Rubicelia Valencia Ortiz. 2019. "Difficulties in the Incorporation of Augmented Reality in University Education: Visions from the Experts." *Journal of New Approaches in Educational Research*, 8(2), 126-141. [doi.org/10.7821/naer.2019.7.409](https://doi.org/10.7821/naer.2019.7.409).
- Deloitte Digital. "Snap Consumer AR: Global Report 2021". 2021. *Deloitte Digital*. 1-74. [https://www2.deloitte.com/content/dam/Deloitte/xen/Documents/About-Deloitte/Snap%20Consumer%20AR\\_Global%20Report\\_2021.pdf](https://www2.deloitte.com/content/dam/Deloitte/xen/Documents/About-Deloitte/Snap%20Consumer%20AR_Global%20Report_2021.pdf).
- Dunleavy, Matt, Chris Dede, and Rebecca Mitchell. 2009. "Affordances and limitations of immersive participatory augmented reality simulations for teaching and learning." *Journal of Science Education and Technology*, 18(1), 7-22. [dx.doi.org/10.1007/s10956-008-9119-1](https://doi.org/10.1007/s10956-008-9119-1).

- Hillmann, Cornel. 2021. "UX for XR: User Experience Design and Strategies for Immersive Technologies: 5.2 Handheld AR Breakthroughs." *O'Reilly Media*, 162. [https://learning.oreilly.com/library/view/ux-for-xr/9781484270202/html/497551\\_1\\_En\\_5\\_C\\_hapter.xhtml](https://learning.oreilly.com/library/view/ux-for-xr/9781484270202/html/497551_1_En_5_C_hapter.xhtml)
- Kerr, Jeremy and Gillian Lawson. 2019. "Augmented Reality in Design Education: Landscape Architecture Studies as AR Experience." *The International Journal of Art & Design Education*, 39(1), 6–21. <https://doi.org/10.1111/jade.12227>.
- Kipper, Greg and Joseph Rampolla. 2013. *Augmented Reality: An Emerging Technologies Guide to AR*. Massachusetts: Syngress/Elsevier.
- Kwok, Andrei O.J. and Sharon G. M. Koh. 2020. "COVID-19 and Extended Reality (XR)." *Current Issues in Tourism*, 24(14), 1935-1940. [doi.org/10.1080/13683500.2020.1798896](https://doi.org/10.1080/13683500.2020.1798896).
- Marr, Bernard. 2019. "What Is Extended Reality Technology? A Simple Explanation For Anyone." *Forbes*. <https://www.forbes.com/sites/bernardmarr/2019/08/12/what-is-extended-reality-technology-a-simple-explanation-for-anyone/?sh=3551314a7249>.
- Mauroner, O., L Le, and S. Best. 2016. "Augmented Reality in Advertising and Brand Communication: An Experimental Study." *World Academy of Science, Engineering and Technology, International Journal of Information and Communication Engineering*, 10(2), 422-425. [doi.org/10.5281/zenodo.1338858](https://doi.org/10.5281/zenodo.1338858).
- McKinsey & Company. "How COVID-19 has pushed companies over the technology tipping point—and transformed business forever." 2020. *McKinsey & Company*. <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>.
- Mohamed, Tarek I. 2020. "The Impact of Using Virtual-Augmented Reality on Some Design Careers (Product, Multimedia, Graphic)." *ICMSSP 2020: Proceeding of the 2020 5th International Conference on Multimedia Systems and Signal Processing*, 54-59. [doi.org/10.1145/3404716.3404736](https://doi.org/10.1145/3404716.3404736).
- Needleman, Sarah E. and Jeff Horwitz. 2021. "Facebook, Apple and Niantic Bet People Are Ready for Augmented-Reality Glasses." *Wall Street Journal*. <https://www.wsj.com/articles/facebook-apple-and-niantic-bet-people-are-ready-for-augmented-reality-glasses-11617713387>.

- Papaefstathiou, Maria. 2019. "AR's Impending Impact on the Graphic Design Industry." *GraphicArt-News*. <https://www.graphicart-news.com/ars-impending-impact-on-the-graphic-design-industry/#.YSbT1NNKjIw>.
- Priyakrushna, Mohanty, Azizul Hassan, and Erdogan Ekis. 2020. "Augmented reality for relaunching tourism post-COVID-19: socially distant, virtually connected." *Worldwide Hospitality and Tourism Themes*, 12(6), 753-760. <https://www.emerald.com/insight/content/doi/10.1108/WHATT-07-2020-0073/full/html>.
- Professional Certificate in AR/VR Development and 3D Graphics. (2021). New York University Tandon School of Engineering. <https://em.online.engineering.nyu.edu/professional-certificate-ar-vr>.
- Reality Types - When Graphic Designers Create Augmented Reality Apps. *Ceros*. <https://www.ceros.com/inspire/originals/augmented-reality-apps/>.
- REYDAR. "Augmented Reality Trends 2021: What to expect from AR this year". (2021). <https://www.reydar.com/augmented-reality-trends-2021/>.
- White, Jeremy. 2021. "IKEA's Revamped AR App Lets You Design Entire Rooms." *Wired*. <https://www.wired.com/story/ikea-revamped-ar-app-design-entire-rooms/>.
- Wu, Hsin-Kai, Silvia Wen-Yu Lee, Hsin-Yi Chang, and Jyh-Chong Liang. 2013 "Current status, opportunities and challenges of augmented reality in education." *Computer & Education*, 62, 41-49. doi.org/10.1016/j.compedu.2012.10.024.