

## D6 - Worksite-specific Safety Training Environments with Augmented Reality COA SHOWCASE

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In high-risk workplaces such as construction sites, inattention to workplace hazards is a common factor in serious injuries and fatalities. Evidence strongly suggests that conventional, lecture-based safety training methods in classroom settings rarely capture workers' interest and do not decrease accidents. Further, adults often learn best in the context of their own work environments and real-life situations. As a result, making safety training more closely associated with trainees' work environments may be more effective than current methods. To this end, this project will construct a personalized augmented reality (AR) training system that uses pictures taken by trainees on their own worksites to recognize site-specific hazards and create replicas of their worksites that show simulated accidents caused by those hazards. This work advances AR environment design, computer vision algorithms, and workplace training pedagogy, and will lead to better occupational safety training practices in high-risk industries and new educational materials for high schools, universities, and industry around occupational safety. It will also serve as a case study of operationalizing andragogy (adult-targeted teaching) in a learning technology setting.