

Predicting Visibility in Designs of Public Spaces

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Abstract

We propose a method for anticipating potential visual hazards during the design phase of an architectural project. In particular, we focus on the needs of people with impaired vision. The method uses a model of human visual loss together with physically accurate rendering of scenes. It avoids the major challenge of automated computer recognition of obstacles, and instead uses easily computable surface geometry data to highlight regions that may require boosts in contrast to improve visibility.