Age-dependent saccadic models for predicting eye movements

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© 2017 IEEE. How people look at visual information reveals fundamental information about themselves, their interests and their state of mind. While previous visual attention models output static 2-dimensional saliency maps, saccadic models predict not only what observers look at but also how they move their eyes to explore the scene. Here we demonstrate that saccadic models are a flexible framework that can be tailored to emulate the gaze patterns from childhood to adulthood. The proposed age-dependent saccadic model not only outputs human-like, i.e. age-specific visual scanpath, but also significantly outperforms other state-of-the-art saliency models.