Literature Survey

In Eye Movements in Reading and information processing, the goal of the article is to provide comprehensive review of eye movements over the past 20 years. When we read, we continuously make eye movements called as the saccades. The problems of identifying individuals based on their characteristics gaze patterns during reading of the arbitrary texts.

In A Semiparametric Model for Bayesian Reader Identification, Existing models of individual differences in gaze control during reading are either based on simple aggregate features of eye movements. Eye-movement patterns during skilled reading consist of brief fixations of individual words in a text that are interleaved with quick eye movements called saccades that change the point of fixation to another word. Eye movements are driven both by low-level visual cues and high-level linguistic and cognitive processes related to text understanding

Models based on machine learning have been developed to study how gaze patterns arise based on the text content and structure and thereby facilitating the understanding the human reading process. The technique used here is Bayesian Semi parametric approach that infers densities under Gaussian process prior centered at the gamma family of distributions the model was shown to reduce identification error by more than a factor of three compared to earlier approaches to reader identification proposed by Landwehr et al. (2014) and Holland & Komogortsev (2012).