Visual design as the key factor for effective environmental analytics dashboard

ABSTRACT

This paper proposes visual design as the key factor for an effective environmental analytics dashboard. Organisations found it challenging to organise data before emerging visualisation techniques such as using dashboards and analytics. Environmental analytics dashboards support analysis of performance and progress of a task/situation for some time, i.e., weekly, monthly or yearly. However, there is a dilemma in choosing a suitable visual design for the data, especially for the environmental domain. The objective of the papers is to conduct a mini-review on the visual design factor and subfactors in the context of environmental dashboards. These factors can be the initial focal point when producing an effective dashboard framework. The methodology chosen for this review is a systematic literature review (SLR). Based on the SLR, 23 papers were reviewed, and visual design was deemed the key factor. Two subfactors, highlighted regions and values, and different visualisation techniques mainly support the key factor. Additionally, the current research shows increased research for effective dashboards from 2006 until 2022 that focuses on visual designs. The listed subfactors can be used as guidance later to build an effective environmental analytics dashboard.