## PE READINGS - USER ENGAGEMENT METRICS

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August 28, 2017

## Towards a science of user engagement (Position Paper) [1]

The paper proposes three lines of research in the area of 'quantification and modeling of user engagement in online services'. The authors explain a set of characteristics along with their definitions that they believe are important for measuring the user engagement. After this, they propose subjective and objective measurement techniques, along with their justifications to do the same. Another line of research, is to look at user engagement from the point of view of 'immersion' especially from gaming perspective. As sometimes, immersion is more telling rather than the interactivity or the connectivity to the user. And, finally the third line of research is to focus on designing prototypes for ensuring user engagement.

We believe that the characteristics defined in the first section sound very reasonable and seem coherent, but at the same time it is difficult to access if only these are enough and sufficient to be able to capitulate to the problem of user engagement. Another concern was the feasibility of the measures listed for quantifying user engagement. Another important observation was that a lot of times, the idea of 'engagement' seems to be genre-specific, which can prove to be a challenge moving ahead. For instance, the authors discuss the idea of 'immersion', owing to a specific genre of gaming or fashion industry. The third point of focus, makes a lot of intuitive sense. The design does affect user engagement, and it seems apposite to look into the design patterns deeply to design systems for user engagement.

## **Models of User Engagement [2]**

The paper aims at developing models of user engagement to provide some initial metrics and insights into the same. The authors have divided the engagement metrics into popularity, activity and loyalty. As stated in the paper, "A highly engaging site is one with a high number of visits (popular), where users spend lots of time (active), and return frequently (loyal)". Based on these metrics, the authors have collected data from users across US across a significant number of websites. Based on the data collected, the authors have built three types of engagement models. The models, do in a way provide different but complementary outlooks on user engagement and its diversity. They claim this work to be a first step towards a methodology for deriving a taxonomy of models of user engagement.

One of the most important distinction they made is to differentiate between the metrics of web usage and user engagement. Often used interchangeably, making that distinction explicitly was required. The three-way engagement metric, which includes popularity, activity and loyalty also seems convincing and borrowing ideas from web usage here also looks appropriate. But, they somewhat looked more inclined towards web usage. Where is the distinction between web usage and uer engagement becoming clear here? Using these features then to build the three kinds of models, seems like a naive approach but does

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give intriguing insights. But at the same time, these models have been built on data that has been collected from a small set of users from a particular demographic area. Can we generalise these trends? What was even interesting were some of the questions raised in the conclusion. It can prove worthwhile to look into some of these questions.

## References

- [1] Attfield, Simon, et al. "Towards a science of user engagement (position paper)." WSDM workshop on user modelling for Web applications. 2011.
- [2] Lehmann, Janette, et al. "Models of user engagement." User Modeling, Adaptation, and Personalization (2012): 164-175.

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