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BOOK OF ABSTRACTS

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Framework for evaluating the effectiveness of website personalization

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Keywords: A/B testing; Website personalization; Website evaluation framework;

1 Introduction

Website marketing and the use of websites to attract potential customers have become a key part in the development of any organization (Demangeot & Broderick 2016). The website enhancement need has set excellent conditions for web personalization to prosper (Salonen & Karjaluo 2016). Web personalization is a broad concept, and there has been a lot of hype about it in the last decade, however understanding or determining its specific effects on the website persuasiveness remains an elusive goal (Tam & Ho 2005). The lack of consensus between scholars suggests that it is a highly case dependent topic that should be addressed by each organization regarding their personalization strategy and organization-user relationships (Kwon et al. 2010). Evaluating web personalization effects is not only focused in the decision of whether to include personalization features on a particular website or not, but also in supporting the decision making about the personalization approach to be used and in the long-term ongoing of the systems. On the other side, a great percentage of website owners are nowadays familiar with evaluating their websites' improvements by using A/B testing. For those two reasons there is an increasing use of this method to evaluate the effects of personalization features on organizations' websites (Dmitriev et al. 2017). However, given the complexity of some personalization decisions and the amount common testing pitfalls (Kohavi et al. 2014), we propose to organizations to construct its own evaluation framework.

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2 Objective

Based on our own organizations experience, our purpose within this paper is to help organizations determine the evaluation aspects that might be included in their evaluation frameworks. This is, laying the foundations to create an evaluation framework to understand the effect personalization in their websites.

3 Methods

An initial evaluation framework concept is analytically delivered from prior work. Then the concepts evolve in an inductive case study inspired by the monitoring of several website A/B tests conducted by different teams within the organization.

4 Results

Although there are various dimensions that could be included in the organization's experimentation framework, we identify four as being the key ones to be considered. The four proposed dimensions are, first, the overall evaluation metrics selection. As the second dimension, organization should not determine the length of experiments but set the criteria to be considered when determining it. For the specific case of web personalization evaluation, some criteria to be included in this dimension of the framework regards the need of post-test segmentation. As third dimension, some criteria for the adoption of the results should be included in the organization's experimentation framework (i.e. reliability or borderline p-values). And finally, organization should settle test prioritization a criterion.

5 Conclusion

In order to be able to evaluate the effectiveness of web personalization, organization need embrace specific evaluation frameworks according to their specific needs, capabilities and objectives. After examining the most common and harmful pitfalls and sticking points, four dimensions are exposed as key.

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