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An Overview of Online-Research in Information Systems

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Abstract. As the Internet has changed communication, commerce, and the distribution of information, so it is changing Information Systems Research (ISR). The goal of this paper is to put the topic of application and reliability of online research into the focus of ISR by exploring the extension of online research methods (ORM) into its popular publication outlets. 513 articles from high ranked ISR publication outlets from the last decade have been analyzed using online content analysis. The findings show that in ISR online research methods are applied despite the missing discussion on the validity of the theories and methods that were defined offline within the new environment and the associated challenges.

Keywords: Research Methods, Internet Research, Online Content Analysis, ISR:

1 Introduction and Research Method

The goal of this ongoing research is to contribute to the development of ISR towards a reference discipline [1] by identifying the status quo and thus the potential for more robust methodological support in application of ORM. We analyzed online articles from top-ranked ISR journals and conferences such as: Management Information Systems Quarterly (MISQ), Information Systems Research (ISR), Journal of Management Information Systems (JMIS), Information Systems Journal (ISJ) and based on [2] following conferences: AMICS, ICIS, ECIS, DESRIST and CONISAR, in order to identify publications explicitly using ORM. After screening of overall 1769 articles from selected journals and 10442 articles from conferences from the years 2004-2014 we identified 513 publications that qualified for the analysis. We analyzed the articles following aspects: ISR theory used, topic of research, ISR paradigm and ORM used. The procedure for the literature review was adopted from [3]. Considered methods were based on the overview by [4] and enriched with Internet-related terms. Whilst not exhaustive, this selection still represents the essence of the methodologies of ISR.

2 Findings

The findings show that the use of ORM in ISR has steadily grown in the time span of the analysis and that ORM were predominantly used to explore web-

related research topics such as social networks, trust and online communities. The most frequently used theory is the Theory Acceptance Model [5].

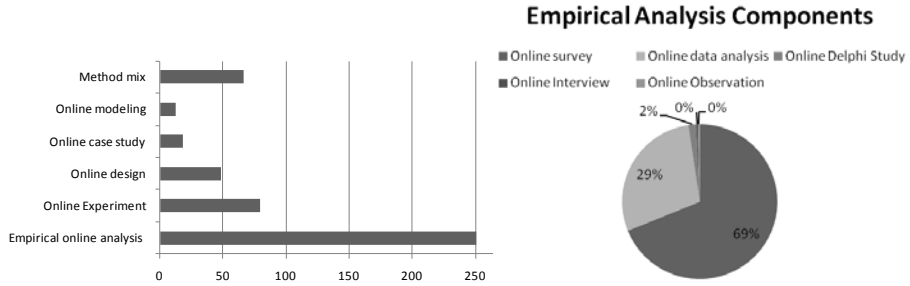


Fig. 1. a) ORM used in ISR in number of articles b) EOA components

Figure 1a shows that the most frequently applied ORM is the empirical online analysis (EOA) followed by online experiment. The decomposition of EOA in figure 1b shows that online survey is most popular method followed by online data analysis. Design science uses ORM more often to evaluate the artifact rather than to construct the artifact online.

3 Discussion

The descriptive study shows that ORM are adopted by ISR mostly in the context of behavioral research topics or for data collection. Also, ISR has transferred the offline research techniques online without the discussion on how the new environment can affect the research findings or whether the research theory used is applicable to the novel environment. Insights from the study are part of the research intended to develop criteria for a guideline for online ISR to support the researchers in their choice of methods.

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