

## Personalization Management Systems

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Personalization management systems represent one of the most promising advances in IT and are experiencing widespread adoption in application areas such as customer relationship management, e-commerce interaction and intimacy, and employee development and training. Personalization is concerned with building a closer relationship and understanding the needs of individuals or groups of customers, whether on the Internet or not. IDC Corp. forecasts 212% annual growth in personalization applications over the next decade.

This minitrack includes all aspects of the personalization management systems life cycle, including technologies and development. This would include the conceptualization of personalization management systems and their associated constructs, proposed designs and infrastructures, empirical validation of personalization models, and case studies illustrating personalization success and failures. Some key topics may include (1) building customer relationships, (2) gathering and analyzing transaction data, and (3) customer/employee education and learning systems.

We solicited papers for this minitrack in the areas of user-behavior tracking technologies (clickstream tracking, hover technologies, pattern recognition); personalization database technologies (collaborative filtering, webhousing, intelligent agents, data mining, profiling, statistical analysis); personalized user interface technologies (content management, streaming audio/video, user, information filtering, user-preference interface design, personalized searching); and customer support technologies (just-in-time customer support, wireless customer service).

To start the minitrack, Carroll and Reese studied the collective efficacy as an extension of the self-efficacy construct to organizations and groups to enhance the understanding of attitudes and behaviors of members of proximal residential communications. Bandura's social cognitive construct "perceived self-efficacy" was used to understand individual behavior of members as a function of domain-specific beliefs

about personal capacities. This paper describes the analysis of the structure and external validity of the collective efficacy construct as it relates to online communities.

The paper by Wu, Im, Tremaine, Instone, and Turoff examines personalization as a new system development approach for designing information systems that change configurations based on each user's needs and preferences. In this paper, the authors present a rough categorization framework for organizing the various types of personalization that has been attempted on Web sites by developing an algorithm for classifying Web sites into high, medium and low personalization support and apply it to a set of well-known Web sites such as amazon.com. The authors discuss why various Web sites have high or low degrees of personalization depending on the organization's goals and product mix and also how personalization might have little or large impact on a Web site's achieving its intended goal (e.g., sales, customer service, information dissemination, etc.)

Finally, the study by Wang and Lin examined the meaning of personalization and argues that personal information needs as well as emotional or mental needs should be taken into account in such a redefinition. This research assigns a new characteristic that can be included into the filtering out of unnecessary information: the conformity behavior. This study compared the effects of four personalization mechanisms on subjective decision quality. The results showed that pure conformity is better than target conformity and collaborative filtering is better than no filtering. More importantly, in doing conformity-based filtering, web site owners can elude the accusation of jeopardizing privacy, by which personalization systems have been under attack.