Mining the Crowd

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Summary

Harnessing a crowd of Web users for data collection has recently become a wide-spread phenomenon. A key challenge is that the human knowledge forms an open world and it is thus difficult to know what kind of information we should be looking for. Classic databases have addressed this problem by data mining techniques that identify interesting data patterns. These techniques, however, are not suitable for the crowd. This is mainly due to properties of the human memory, such as the tendency to remember simple trends and summaries rather than exact details. Following these observations, we develop here a novel model for crowd mining. We will consider in the talk the logical, algorithmic, and methodological foundations needed for such a mining process, as well as the applications that can benefit from the knowledge mined from crowd.

Biography

Tova Milo received her Ph.D. degree in Computer Science from the Hebrew University, Jerusalem, in 1992. After graduating she worked at the INRIA research institute in Paris and at University of Toronto and returned to Israel in 1995, joining the School of Computer Science at Tel Aviv university, where she is now a full Professor and the Head of the Department. Her research focuses on advanced database applications such as data integration, XML and semi-structured information, Data-centered Business Processes and Crowd-sourcing, studying both theoretical and practical aspects. Tova served as the Program Chair of several international conferences, including PODS, ICDT, VLDB, XSym, and WebDB. She is a member of the VLDB Endowment and the ICDT executive board and is an editor of TODS, the VLDB Journal and the Logical Methods in Computer Science Journal. She has received grants from the Israel Science Foundation, the US-Israel Binational Science Foundation, the Israeli and French Ministry of Science and the European Union. She is an ACM Fellow and a recipient of the 2010 ACM PODS Alberto O. Mendelzon Test-of-Time Award and of the prestigious EU ERC Advanced Investigators grant.