

Designing a Market of Data to Enable Chance Discoveries

Guest editors:

Yukio Ohsawa, Prof., The University of Tokyo

Akinori Abe, Prof., Chiba University Japan

Available and useful data are required to create a social environment where decision makers in active businesses can be supported by data synthesis and analysis. Yet availability of data continues to be a critical bottle neck in data-driven approaches to chance discovery i.e., to discover uncertain events that are significant for decision making. Although there is a growing world-wide practice since 2000 to disclose governmental data, potentially useful data owned by industrial organizations are still closed. Organizational reasons to closely hold data include monopolizing the potential future value of the data, uncertainty about potential users, and unclear purposes and processes of data usage.

In this special issue, we extend research from our recent MoDAT (Market of DATa) workshop series. We call for papers about any techniques, methods, or theories about how we can design the market of data, where each user or provider of data can externalize and share the value of each part of data so that one can buy/sell it in a reasonable condition, e.g., for a reasonable price with respect to the value expected by the analysis or as open source if the data may give merits to people in general rather than to particular segments who can pay.

Our ultimate goal is to have each person on the earth to be able to easily obtain potentially useful data and combine them for efficient and effective decision making, without fearing loss of business opportunities. Methods for visualizing the relevance of metadata and communication based on the visualization can be key technologies to support our progress toward this goal. Furthermore, data scientists need to import techniques from others, but these techniques are not easy to learn from experts dealing with different kinds of data. For example, similarities between latent dynamics behind data could be represented as visualizing distances among structural features of data, to aid the selection of success/failure cases of data mining. Possible relevant areas to the topic are shown below.

*** Relevant Areas

The areas below include, but not restricted to, domains relevant to chance discovery. We particularly invite sociologists, biologists, and knowledge workers in business.

Data/text mining and visualization

Mining data or text, for externalizing potential values of data

Analysis of relevance among metadata, to estimate the possibility to combine data

Knowledge representation

Constructing ontologies of variables, for visualizing potential links among data

Learning/representing concepts in the thoughts of participants in the market

Methods for creative communication and argumentation

Data-based communication for evaluating the value of an event or of data for decision making of any participant in the market of data

Visual interface for triggering meaningful thoughts of stakeholders

Call for Papers – *Intelligent Decision Technologies (IDT)* International Journal
Special Issue

*** Important Dates

May 31, 2015: Deadline for submission. In order to submit an article to IDT, one needs to use the electronic submission system. One can find the hyperlink at:

<http://www.iospress.nl/journal/intelligent-decision-technologies/>

Please click on the above link (or, copy and paste). Click the Manuscript Submission and Author Instructions Tab. Authors will find the manuscript preparation instructions as soon as the above tab is clicked. In the "**Remarks**" blank, one should write "**Market of Data**" that is the subject of the issue. It is also OK if the authors are not able to follow the formatting instructions fully. Publisher can take care of the formatting during the final submission phase of the revised manuscript.

July 31, 2015: First notification of paper acceptance/conditional/rejection to authors

October 20, 2015: Final notification, after at most two rounds of reviewers' feedback to authors

*** Notes for Authors

All papers will be double blind reviewed and should be original, complete research papers (10-15 typeset pages), and not previously published. This is about 18-20 double spaced pages on submission. Figures need to be readable.

Authors will need to rewrite papers previously published in a conference and sufficiently extend them to full papers with sufficient references. If the paper has been previously published in a conference, authors should include the reference and provide a statement at the end of the paper as to how it has been extended. IOS Press will complete the final formatting and correspond with the authors and deal with copyright (however, they will not format references - please see the website for the correct format).

The paper should clearly state its contribution to chance discovery, that is, to the discovery of information significant for decision making from the market of data. We encourage authors to include cases or experiments of applications that are discussed since this makes the link to decision making.

Please contact the special issue guest editors with any further question.

EOF