

**INVITED SESSION SUMMARY**

Title of Session: **Chance Discovery and Market of Data**

**Name, Title and Affiliation of Chair:**  
**Akinori Abe, Prof, Chiba University**  
**Yukio Ohsawa, Prof., the University of Tokyo**  
**Noriyuki Kushiro, Prof., Kyushu Institute of Technology**

**Details of Session (including aim and scope):**

This session will discuss several problems in Chance Discovery. As shown, Chance Discovery is a research to study how to discover rare or novel events causing potentially significant situation. Although the event itself could not be significant. A chance might be computationally or manually discovered. Thus, advanced computational techniques such as abduction and induction (including data mining) could be applied to Chance Discovery. In addition, personalised and very traditional (sometimes, manual) data mining method could also be effective in Chance Discovery. We have discussed limitations of conventional data mining methods. And many new computational methods, and concepts and mechanisms of human discovery have been proposed. In the contexts, we have discussed how to discover and suggest events causing significant but hidden events. Our common understandings are that we deal with events in the real world, therefore, we need to have knowledge about movement in society, behaviour of people, as well as computational methods. In addition, it is important to discuss effective chance evaluation, selection, and suggestion methods. It would be a gate for fantastic and innovative applications.

Thus, we would like to discuss from logical, computational, cognitive, sociological, economical and psychological viewpoints. In addition, we would like to discuss “curation” of chance. Traditionally, curation is not only concerned with long-term care of books, paintings or other artefacts. It is also about maintaining their integrity and enabling and promoting their availability to appropriate audiences (<http://www.jisc.ac.uk/e-sciencecurationreport.pdf>). In addition, “curation” has recently focused on even in the marketing field. As shown above, for chance discovery, we have focused on strategies to discover rare or novel events and those to present hints of chance to users. By curation, we add a more active action to chance discovery, which curators usually struggle to explicitly or implicitly express extended or hidden meanings (values) to potential audiences. It should be related to “value sensing” in chance discovery. In addition, it should be related to “chance synthesis.”

Of course, other viewpoints are also welcome!

- Analysis of human behaviour.
- Analysis of complex systems (society, community etc.).
- Applications of Chance Discovery.

- Innovations as Chance Discovery.
- Value sensing in Chance Discovery.
- Chance synthesis
- Characterization of ``Chance.”
- Logical foundations for Chance Discovery.
- Theories and methodologies to discover rare or novel events.
- Theories and methodologies to foretell next trends.
- Theories and methodologies to make aware of significant events.
- Theories and methodologies for an evaluation and selection of chance.
- Models and methodologies for effective suggestion of chance.
- Relationship between computational and manual methods.
- Integration of computational and manual methods.
- Curation of chance
- Data market, data jacket etc..

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

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**Website URL of Call for Papers (if any):**

<http://ultimaVI.arc.net.my/ave/KES2018/> (TBA)

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