Workshop on the Interplay between Human-Computer Interaction and Data Science (*HCI-DS*)

To be held in conjunction with IDEAL 2018, 21-23 November 2018, Madrid, Spain

The workshop aims to bring together researchers in the fields of human-computer interaction and data science, acting as a seed for further exchange of ideas and cross-community fertilization.

Human-computer interaction research is essentially human centered and can benefit from a broader and more thorough understanding of the state of the art of the field of data science when tackling challenges such as adequately scaffolding people interacting with and through computers. On the other hand, data science is essentially theory and technology centered and could benefit from the human-centeredness conveyed by the practices and values of the human-computer interaction community. Greater symbiosis between these two communities has the potential of improving the symbiosis between people and computing technology, facilitating the necessary balance between the convenience, pressure and overload that concomitantly characterize our contemporary relation with technology.

In practical terms, data science can help HCI when the amount of data from user experience or interface evaluation becomes too large for traditional data analysis to handle; this could happen, for example, when collecting longitudinal data from large set of user with wide range of demographic characteristics, or when measuring single user very precisely with multiple sensors such as psychophysiology, eye-tracking and video capture. Conversely, data-science could benefit from HCI when designing visualizations and tools for exploring these kinds of complex data sets to make it as easy as possible to derive meaningful insights and patterns.

The contributions to the workshop should reflect several aspects of Intelligent Computing. From Data Science perspective the focus may be on proper machine learning and data mining as well as, (big) data management methods and technologies in support of data analytics, procedures upon which HCI related research issues find their solutions. From the Human-Computer Interaction point of view, the focus could be on how to use current data analysis processes to enable adaptation, recommendation and user interaction scaffolding.

The workshop will facilitate the discussion of many theoretical and practical aspects of the interplay between human-computer interaction and data analysis and modeling. The main target will be the establishment of a joint understanding of the relevant challenges and resulting research agenda.

Topics of interests (included but not limited to):

- Interaction, management and visualization of big data
- Novel interaction techniques for data science
- Design, development and evaluation of interactive data science
- Interfaces for Distributed Data and Knowledge Processing
- Design, development and evaluation of intelligent interfaces
- User modeling and and Business Intelligence Systems user-adapted interaction
- Recommender systems and decision support systems

Workshop Chairs/Organizers

- Cristian Mihăescu, University of Craiova (mihaescu@software.ucv.ro)
- Ilkka Kosunen, University of Tallinn (ilkka.kosunen@gmail.com)
- Ivan Luković, University of Novi Sad (ivan@uns.ac.rs)

Introductory Talk

- *Presenters*: Cristian Mihăescu, Ilkka Kosunen
- *Theme of discussion*: "***Clustering and visualization of high-dimensional and complex data***"