

## UMAP 2018 HUM (Holistic User Modeling) Workshop Chairs' Preface & Organization

It is our great pleasure to welcome you to the *UMAP 2018 HUM (Holistic User Modeling) Workshop*.

According to a recent claim by IBM, 90% of the data available today have been created in the last two years. This exponential growth of online information has given new life to research in the area of user modeling and personalization, since information about users' preferences, sentiment and opinions, as well as signals describing their physical and psychological state, can now be obtained by mining data gathered from many heterogeneous sources.

We can distinguish two important classes of such data sources. One of these comes from recent trends in Quantified Self (QS) and Personal Informatics, which has emphasized the use of technology to collect personal data on different aspects of people's daily lives. These data can be internal states (such as mood or glucose level) or indicators of performance (such as the kilometers run). The purpose of collecting these data is self-monitoring, performed to gain self-knowledge or to obtain some change or improvement (behavioral, psychological, therapeutic, etc.). Often these data are also exploited for behavior change purposes, for example to increase the user's physical activity.

The other key category comes from the enormous amount of textual content that is continuously spread on social networks. This has driven a strong research effort to investigate to what extent such data can be exploited to infer user interests, personality traits, emotions, and knowledge. Moreover, the recent phenomenon of (Linked) Open Data fueled this research line by making available a huge amount of machine-readable textual data that can be used to connect all the data points spread in different data silos under a uniform representation formalism.

The main goal of the workshop is to investigate whether techniques for advanced content representation and methodologies for gathering and modeling personal data (e.g. physiological, behavioral) can be exploited to build a new generation of personalized and intelligent systems in domains as diverse as health, learning, behavior change, e-government, smart cities (e.g., by combining mood data and music preferences data to provide recommendations on music to be listened).

We received proposals from all around the world covering a broad range of topics. We evaluated them regarding relevance, quality, and novelty, selecting 7 full papers and 1 short paper. We also took into account the coverage of the different areas related to personalization and user modeling as well as the potential audience. Specifically, the following contributions were accepted:

1. Tourist Support System Using User Context Obtained from a Personal Information Device
2. A Framework for Holistic User Modeling Merging Heterogeneous Digital Footprints
3. iSynchronizer: A Tool for Extracting, Integration and Analysis of MovieLens and IMDb Datasets
4. Holistic User Models for Cognitive Disabilities: Personalized Tools for Supporting People with Autism in the City
5. Me, Myself and I Are Looking for a Balance Between Personalization and Privacy
6. Interactive recommendations by combining User-Item Preferences with Linked open data
7. Injecting Semantic diversity in Top-N Recommender Systems using Determinantal Point Processes and Curated Lists
8. Predicting Learning Difficulty based on Gaze and Pupil Response

We believe that the program provides a good balance between several trending topics such as the use of personal information to predict user characteristics (Paper #8), the exploitation of contextual data to support the user and personalize her experiences (Paper #1 and #4), the development of infrastructures to build and integrate data about users (Paper #2 and #3) and the application of such user models in recommendation scenarios (Paper #6 and #7). Finally, we also have a contribution discussing the balance between personalization and privacy (Paper #5), that is a very hot topic at moment. We hope that you will find the workshop program interesting, providing you with a valuable opportunity to learn and share ideas with other researchers and practitioners from institutions around the world.

**Cataldo Musto**

Workshop Chair

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# HUM (Holistic User Modeling) Workshop Organization

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