

Preface

This joint volume contains papers from the 1st International Workshop on Temporal Dynamics in Digital Libraries (TDDL 2017), the (Meta)-Data Quality Workshop (MDQual 2017), and the Workshop on Modeling Societal Future (FUTURITY 2017) held on September 21st and co-located with the 21st International Conference on Theory and Practice of Digital Libraries (TPDL 2017) in Grand Hotel Palace, Thessaloniki, Greece.

TDDL 2017: Temporal Dynamics in Digital Libraries

In Digital Libraries, which can often span several epochs, time is a critical factor. It is the means by which understanding, searching, and exploring these collections of data. Temporal dynamics, i.e. time-based patterns and trends, underpin language usage, entity references, and cultural and economic trends. Users accessing the information contained in Digital Libraries have to deal with their partial knowledge of these phenomena (word meaning variation, entity temporal ambiguity, specific events and time-related trends), as well as their own temporal evolution, i.e. their change in interests, preferences, and goals over time. Intercepting, representing, and predicting these dynamics is fundamental to the intelligent information access in Digital Libraries.

The 1st Workshop on Temporal Dynamics in Digital Libraries aimed at bringing together researchers and practitioners from different backgrounds in order to identify and discuss research trends, challenges, and new opportunities related to the time-aware intelligent access to Digital Libraries. TDDL 2017 received a total of 5 long paper submissions, of which 3 were accepted after being reviewed by 3 members of the program committee. Among the accepted papers, two were presented at TDDL 2017 and are included in this volume. The workshop also featured an invited keynote presentation by Prof. Jaap Kamps entitled “Taking Time Seriously: Diachronic Collections in Digital Libraries”. An extended abstract describing this presentation is included in this volume.

MDQual 2017: (Meta)-Data Quality Workshop

It is well known that we are rapidly moving towards a data driven world where all aspects in our everyday lives are data driven. In all domains from healthcare to retail and finance, data is collected, analysed and used to make decisions, usually utilizing machine learning techniques. The quality of this data is critical and directly affects the outcome of all data science related tasks. Moreover, metadata is used to annotate data and facilitate data organization and retrieval. Metadata quality also directly affects retrieval and other operations (such as data integration) and workflows that are metadata driven. Although various metrics

have been proposed to measure metadata and data quality, in most cases they are highly subjective and/or domain specific. Moreover, they are directly related to the intended use of the data, meaning that a dataset could be of high quality for one use and of low quality for another. In all cases, (meta)data quality has a tremendous impact on data science related tasks and ultimately in everyday life.

The (meta)-data quality workshop aimed at exploring the various quality issues found in people working with both data and metadata across domains. Hence its objectives was to (a) share and exchange experiences regarding (meta)data quality, (b) identify patterns in (meta)data quality, (c) share methodologies and metrics that will help to measure (meta)data quality and (d) share and propose tools that can be used effectively in improving automatically (meta)data quality.

The workshop received a total of 5 full paper and 2 poster/demo submissions, of which 4 full papers and 1 demo were presented after being reviewed by 3 members of the program committee. The workshop also featured an invited keynote presentation by Prof. Peter Doorn and Mrs Eleftheria Tsoupra entitled “A Simple Approach to Assessing the FAIRness of Data in Trusted Digital Repositories”. An extended abstract describing this presentation is included in this volume.

Futurity 2017: Workshop on Modeling Societal Future

Artificial Intelligence struggles to enrich machines with human-like features, therefore accessing meaning and sharing it with computers is one of the main challenges that the computational linguistics domain faces nowadays. While still far from completely decoding hidden messages in political speeches, computer scientists, language engineers and linguists have joined efforts in making the language more machine-understandable. In order to teach computers to understand and predict human behavior, language models need to be specified and created from human knowledge. Building machine-readable knowledge bases takes a huge amount of time and resources, both financial and human (trained experts). Since today we found ourselves in an era in which software learns from its users and all of the users are connected, this workshop intends to discuss natural language processing applications which explore the web (with a special emphasis on the social web) in new and innovative ways, in order to extract the wisdom of crowds captured within. With such knowledge extraction applications, dynamically created for different user types, contexts or time frames, a gap will be filled between where we are now and where we could be in artificial intelligence: an era when computers are engaged in intellectual cooperation (with humans, or even more futuristic, with each other) in order to foster creativity, innovation and inventiveness. The specific aim of FUTURITY-2017 is to establish a consolidated community of internationally appreciated language technology practitioners from different backgrounds, with interests in real-life applications, bridging the gap between research and innovation in order to make sense of crowdsourced knowledge and foreseen future societal challenges. Taking

advantage of this huge knowledge repository, and the new search and extraction methods, the scientific program of FUTURITY-2017 invites papers focusing on the following (and related) topics:

- Modeling search to extract knowledge from social web;
- Collaborative and interactive search;
- Conversational search interaction;
- Community behavioral analysis;
- Intelligent personal assistants;
- Semantic search;
- Extracting and mining forum data
- Social media and linked data methodologies in real-life scenarios
- Collaborative tools and services for citizens, organizations, communities;
- Diversity and aggregated search
- Creating and using structured social media-based resources through social web mining;
- Exploring crowdsourcing and user communities;
- Strategic early warning systems and detection of weak signals;
- Using the social web to foster innovation;
- Exploring the digital cultural heritage;
- Interaction with the web as a mental, social and physical extension of people.

For the FUTURITY-2017 workshop, we received 8 submissions through the EasyChair submission platform, out of which 5 were accepted for presentation at the workshop and publication in this proceedings. Each of the submitted papers was thoroughly reviewed by two Program Committee members, experts in the topics of the workshop. All papers emphasize innovative approaches addressing the following topics:

- Reviewers Classification in an Online Community of Romanian Tourists by Mihaela Colhon, Costin Bădică
- Developing a Technology Allowing (Semi-) automatic Interpretative Transcription by Daniela Gîfu, Mihaela Onofrei
- Neutrosophy, Method of Uncertainties Process Analysis by Florentin Smarandache, Mirela Teodorescu
- How can we reconstruct stories based on memories? by Andreea Macovei, Diana Trandabăț
- Assistive technology in stock market decision making by Radu A. Ciora, Carmen M. Simion and Marius Cioca.

Acknowledgements

TDDL workshop was supported by the European Unions Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 713567 and by the ADAPT Centre for Digital Content Technology, which is funded under the Science Foundation Ireland Research Centres Programme

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(Grant 13/RC/2106) and is co-funded under the European Regional Development Fund. FUTURITY workshop was supported by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS/CCCDI UE-FISCDI, project number PN-III-P2-2.1-BG-2016-0390, contract 126BG/2016, within PNCDI III funding program.

Many people contributed to the success of this event, and we express our sincere thanks to all of them. The program committee, made up of international experts in the area of information retrieval, natural language processing, social media and linked data, spent time carefully reviewing all the proposals submitted to TDDL, MDQual, and FUTURITY 2017 to insure a qualitative improvement of the papers. The members of the Organizing Committee have enthusiastically assured the settings were appropriate for scientific networking. See you next edition!

January 2018

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Workshop on Modeling Societal Future

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