Press Release

Vienna, 19. November 2021

4TH INTERNATIONAL DATA SCIENCE CONFERENCE – DATA SCIENCE EVERYWHERE

International experts in data science from research and industry presented the latest developments and innovative industrial applications

At the 4th International Data Science Conference (iDSC 2021) hosted virtually by the AIT Austrian Institute of Technology in Vienna on 20 and 21 October, respected data scientists and industrial users from Austria, Germany, England, Turkey, Iran, and the USA discussed current scientific trends. They also reported on the present state of operational scenarios for key technologies in the domains of Artificial Intelligence (AI), the Internet of Things, and Production 4.0. The two-day conference, organised by AIT, FH Voralberg, Danube University Krems, and the original initiator of iDSC, FH Salzburg, once again adopted the successful strategy of splitting the conference into the two tracks “Research” and “Industry” in order to be able to present the latest research approaches and industrial applications for data science across a variety of domains and for a wide range of marketing challenges.

In opening the conference Helmut Leopold, Head of Center for Digital Safety & Security at AIT and host of this year’s iDSC, and Peter Haber, iDSC initiator and Senior Lecturer at the FH Salzburg, emphasized the high degree of computer science and artificial intelligence expertise already available in Austria, and the fundamental importance of ongoing exchange between science, research, and industry. The 2021 iDSC enabled Austria to once again position itself internationally as a successful location for science and industry.

The conference discussed current findings from science and industry. A series of 6 sessions provided the format for presentations on highly topical subjects covering predictive maintenance, scaling of business models and associated software use in industry, anomaly detection based on deep learning, security and data integrity in machine learning, and methods based on natural language processing for optimizing data ecosystems.

International keynote speeches demonstrated a broad spectrum of developments and applications

An exciting mixture of keynotes helped make this a highly topical, visionary event. In her keynote **Cornelia Schaurecker,** Big Data & AI Director of the Vodafone Group, answered questions about the why, what, and how of comprehensive AI application, giving as an example the global telecommunications provider Vodafone. She stressed that, apart from the targets set by clients and business, the primary purpose was to achieve sustainability goals (keyword ‘big data and AI for social good’) such as ‘the planet’ and ‘inclusion for all’, and to accelerate the approaching transition. She presented use cases from several areas of the value chain including customer management, marketing, retail and finance. She also stressed how value-creating AI scenarios

must always be developed in conjunction with markets so that a functioning ecosystem with the necessary capacities, standards and partners could be established over the medium term, and the newly created ‘data products’ scaled up quickly and internationally.

Mario Drobics, Head of the Competence Unit for Cooperative Digital Technologies at the AIT Center for Digital Safety & Security, explained in his keynote why he is convinced that smart data is vital for the transition from a linear to a circular economy which is so important today. The shared use of data creates the basis for an integrated approach to value creation cycles, i.e., taking into account all relevant factors such as the use of resources and environmental pollution, as well as social aspects. According to Drobics, this makes possible a multiplicity of value creation cycles which support both the efficient use of new, and the recycling of existing, materials and products.

In his keynote, **Mario Meir-Huber,** Head of Data at the Uniqa Insurance Group, strikingly outlined the upcoming cultural change in data science. He explained that data management is currently very costly for large organizations, as many storage technologies are still operated in the first (data warehouse) or second (data lake) stage of evolution, with distributed data owners and corresponding data silos. By focusing on decentralized business domains, a shift in mindset towards ‘data mesh’ has the potential to overcome key data storage problems. Furthermore, he described the resulting decentralized governance and simple retrievability of data using polyglot data catalogues and traceable metadata as the most important building blocks for data mesh, and hence the ideal fuel for smooth digitalization.

Prof. Allan Hanbury, Professor of Data Intelligence at the Institute of Information Systems Engineering of TU Wien, opened day 2 of the conference. In his keynote he noted the reasons why data are not openly accessible, for example to protect personal privacy, and presented a wide range of models for the limited sharing of sensitive data, including contracts specifying the type of data use, physical barriers to accessing data, or IT-based solutions which would stop data access under given conditions. He provided the example of anonymized mobile movement data combined with anonymized pandemic data as the basis for models which allowed the Austrian government to provide evidence-based recommendations for Covid-19 interventions. In closing, he stressed that in future science should be given access to many data spaces, such as health, mobility, environment, agriculture, and public administration, to ensure that the economic potential of the European data economy, valued at around EUR 1.3 trillion, can be fully exploited.

In the closing keynote, **Günther Tschabuschnig**, President of the Data Intelligence Offensive (DIO), and **Natascha Totzler**, Product and Project Manager at Nexyo, used live surveys of the virtual conference participants to explain the core elements of governance. On the central question of the purpose of agile data governance, they both argued that governance must be transparent if it is to be trusted, and that its agility would increase the speed of the transition. This, in turn, is a precondition for the quicker roll-out of developed systems and a reduction in the number of flawed developments. They justified their support for decentralization on the basis of better data quality due to domain awareness, resource efficiency with implementations across individual links, and on generally faster installation as a result of decentralized management.

Session Chairs and sponsors

The various sessions were chaired by highly experienced data scientists from the host institutions: Ross King (AIT Austrian Institute of Technology), Sebastian Hegenbart, Karl-Heinz Weidmann (FH Vorarlberg), Michael Gadermayer and Thomas Heistracher (FH Salzburg), and Thomas Lampoltshammer (Danube University Krems). The Danube University Krems will also host the iDSC 2022.

As host of the 4th International Data Science Conference (iDSC), the AIT Austrian Institute of Technology thanks the sponsors Sparx Services CE, X-Net and SBA Research for their support and contributions, which ensured that this year's conference has met its customary high standards of quality, with an impressive programme featuring excellent speakers from research and industry.

The lectures and presentations will shortly be available on the iDSC website at https://idsc.at/.

Contact:

Mag. (FH) Michael W. Mürling
Marketing and Communications
AIT Austrian Institute of Technology
Center for Digital Safety & Security
T +43 (0)664 235 17 47
michael.muerling@ait.ac.at I www.ait.ac.at

Sigi Kämmerer, MAS
Business Unit Manager, Corporate Communications & Marketing, Press Officer
Fachhochschule Salzburg GmbH
Salzburg University of Applied Sciences
T +43 50 2211-1077
sigi.kaemmerer@fh-salzburg.ac.at

Prof. Dr. Thomas J. Lampoltshammer
Deputy Head of Center for E-Governance
Danube University Krems
Dr.-Karl-Dorrek-Strasse 30 | 3500 Krems a. d. Donau | Austria
T +43 (0) 2732 893 - 2306
thomas.lampoltshammer@donau-uni.ac.at | http://www.donau-uni.ac.at/