

FRANKFURT 2018

16 – 18 OCTOBER

INTERGEO®

GLOBAL HUB OF THE
GEOSPATIAL COMMUNITY



PRESS RELEASE

Prof. Döllner from the Hasso Plattner Institute gives keynote at the INTERGEO Conference in Frankfurt

Artificial intelligence has great strength in the interpretation of geodata

Potsdam, Frankfurt/Main, September 20, 2018. Everyone's talking about artificial intelligence (AI). It's one of the key topics in the general discussion about digitalisation. Experts such as Prof. Jürgen Döllner from the Hasso Plattner Institute, whose keynote speech can be heard at INTERGEO 2018 on 16 October in Frankfurt, hardly see a field that would not be able to benefit from the advantages of artificial intelligence. He predicts that there will be a number of revolutionary changes. In his keynote speech "4D Point Clouds and Machine Learning", he discusses, among other things, the application areas of AI in geospatial business applications and what future potential there is especially in this area. INTERGEO TV met him at the Hasso Plattner Institute of the University of Potsdam for an opinion leader interview, which will be published on the news platform for the geospatial community (www.intergeo-tv.com) on September 20.

What applications exist for AI in the geospatial industry and what potential do you see in this sector in particular?

The applications of artificial intelligence are manifold. I cannot even see any field that would not be able to take advantage of Artificial Intelligence, so we will see it in almost all fields of geodata processing. For example, one core strength of artificial intelligence refers to its ability to interpret unsharp, fuzzy geodata. This is typically a nightmare for all geoinformation systems and processes. However, using AI can somehow heal bad data to become better data and this is only one example of the manifold applications. Other applications include analytics, especially predictive analytics in the field of geoinformation systems and geospatial analysis.

To analyse large amounts of data, scientists and researchers need an effective IT infrastructure. How should these large amounts of data be handled?

Host
DVW – German Society for
Geodesy, Geoinformation
and Land Management e.V.





Artificial Intelligence requires big geospatial data and we have to think of changing our paradigm – not storing geodata in a single place, not even in the cloud, but dealing and handling and processing geodata streams that most likely will never end, that are constantly delivering us new data and so the paradigms used to develop algorithms have to be remodeled.

How can different data streams be linked, for example in smart cities?

In smart cities we will basically be confronted with a diverse heterogeneous number of geodata streams. Once again, we have to be aware that our current schemes having geodata basis, specialized data basis with a large amount of memory, that this model will not work in the future anymore.

AI has the potential to make data capture and evaluation processes significantly faster. Are we facing revolutionary changes?

Yes, of course. There will be a number of revolutionary changes. For example, in the future most processes will directly not only capture geodata, but also at the same time process geodata and allow us to derive what we are really interested in. Imagine a drone that captures some environment and directly extract some specific objects for example street signs. So there will no longer be a need for a detailed process that defines different stages, instead we will be able to directly interpret geodata and this will accelerate most processes and this will allow us to create completely new applications. This will allow us to find completely new ways to store geodata and even more to store only relevant insights that can be derived from geodata using AI.

What potential does this offer for construction processes?

Artificial Intelligence offers completely new ways to define processes for the construction area. For the building information modelling world, artificial intelligence will improve the way data can be brought into these processes.

What potential does this offer for traffic management?

AI will be a key component for future traffic control systems. Systems that are on one hand centralized and control for example the infrastructure of the traffic system of a city but on the other hand can also be built in into our devices, into our vehicles, our cars and both together can cooperate in a smart way and hopefully lead to a number of improvements in our traffic.

FRANKFURT 2018

16 – 18 OCTOBER

INTERGEO®

GLOBAL HUB OF THE
GEOSPATIAL COMMUNITY



Deep learning and technologies such as artificial neural networks that map the human brain have made real advances over the past few years. To what extent is geodata key to these developments in deep learning?

Geodata is key to these techniques because it is almost the most perfect category of data that can be processed by AI-algorithms and deep learning-algorithms because geodata is shaped, is characterized by a kind of unsharpness and fuzziness and this is where AI can bring us real benefits. So geodata are somehow excellent inputs for all these technologies and for that reason AI and deep learning will have a great impact on the geoinformatics world because here we have the right data to be processed by AI and deep learning.

AI planning expert Prof. Jürgen Döllner from the Hasso-Plattner Institute will open the event with a keynote speech focusing on the different uses of AI.

INTERGEO is the world's largest trade fair for geodesy, geoinformation and land management and therefore provides a fantastic platform, forum and opportunity to network. The 2018 event will be held in Frankfurt am Main, Germany, from 16 to 18 October.

Tickets are available for purchase now from www.intergeo.de/tickets

Prof. Jürgen Döllner on INTERGEO TV: <https://www.intergeo-tv.com/2018/09/13/prof-jurgen-dollner/>

About INTERGEO

INTERGEO, which consists of a conference and a trade fair, is the world's largest event for geodesy, geoinformation and land management. It is held every year at different venues in Germany. The conference, which has more than 1,400 participants, deals with current issues from politics, administration, science and industry. In 2017, more than 18,000 visitors from over 100 countries discovered the latest innovations and system solutions in the sector from 590 companies. Visitor, exhibitor and exhibition area statistics for INTERGEO are calculated and certified in line with the standardised definitions of the FKM (Society for the Voluntary Control of Fair and Exhibition Statistics).

INTERGEO's aim is to facilitate process optimisation in numerous target markets with the geo-IT potential it showcases. Its forthcoming venues are the internationally renowned exhibition cities of Frankfurt am Main in 2018, Stuttgart in 2019 and Berlin in 2020.

INTERGEO is hosted by DVW – the German Society for Geodesy, Geoinformation and Land Management.

Host
DVW – German Society for
Geodesy, Geoinformation
and Land Management e.V.



FRANKFURT 2018

16 – 18 OCTOBER

INTERGEO®

GLOBAL HUB OF THE
GEOSPATIAL COMMUNITY



HINTE Expo & Conference is responsible for the management of the specialist trade fair.



YOUR PRESS CONTACT:

HINTE Marketing & Media
Head of Communications
Denise Wenzel
Tel.: +49 (0)721 83 14 24 – 730
dwenzel@hinte-marketing.de

Host
DVW – German Society for
Geodesy, Geoinformation
and Land Management e.V.

