Academic Expert Training Tax&Technology Amsterdam/Antwerp

27-30 January 2023

vrije Universiteit amsterdam

University of Antwerp
DIGITAX | Digitalisation and Tax
Centre of Excellence

MCMV
ANNO
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Are you ready to stand out and immerse yourself in the world of Tax&Technology

Two-day program, one day Amsterdam, one day Antwerp, and participants can follow both days or only one.
Vrije Universiteit Amsterdam will put an emphasis on collecting and processing of big data and University of Antwerp on the analysis of big data.

Speakers

Vrije Universiteit Amsterdam

Prof. dr. Albert Bomer
Katarzyna Anna Fras
Roderick Lucas
Ben van Maurik
Laura Plummer
Arnold Roza
Jasper van Schijndel

University of Antwerp

Prof. dr. Toon Calders
Prof. dr. Sylvie De Raedt
Prof. dr. Anne Van de Vijver
David Hadwick
Michiel Van Roy
Daphne Lenders
Dieter Brughmans

Registration form

Target group

Tax professionals: tax authorities (including tax data miners), tax accountants and tax consultancy, corporate lawyers.

Recognition

This educational program will be recognized for permanent education purposes.

Pricing

One day – 1500 Euro
Complete course – 2500 Euro
Coffee breaks, lunch, and (digital) documentation are included.
Not included: social program. More information available here

Language of the program

English

Location

Day 1 - 27th January 2023
The program is offered at the Vrije Universiteit Amsterdam.

Day 2 – 30th January 2023
The program is offered at the University of Antwerp.

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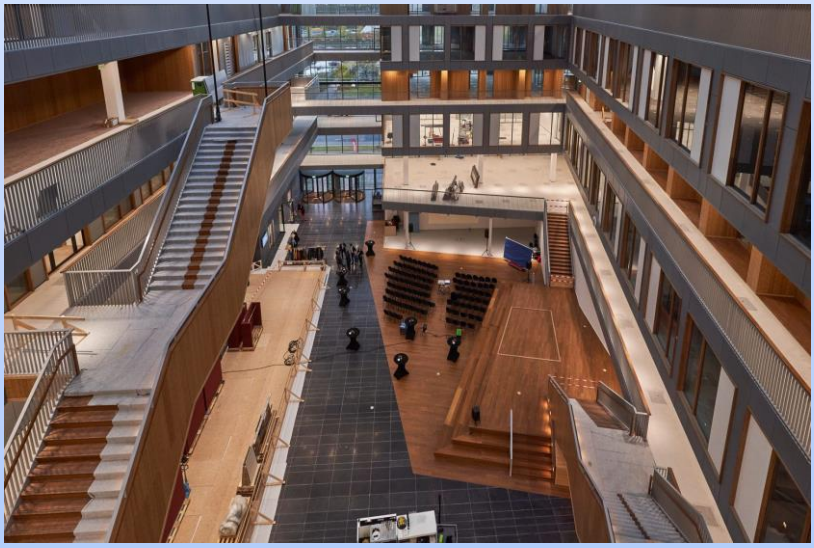
Day 1 – 27th January 2023
Vrije Universiteit Amsterdam

Introduction: Big Data Process

Big Data is a phenomenon that refers to the exponential growth and availability of data. In the first class of this session, we will introduce Big Data process which consists of 3 phases: collection of data, analysis of data and use of data. In this session, each of the phases will be determined and generally described. The specificalies of the phases will be further expanded and explored in the rest of the 2-day program. At the VU, you will learn about the first 2 phases: data collection and data processing.



Collecting Data

This part of the program focuses on the first phase of Big Data process, namely data collection. We will analyze what kind of data tax administration collect and have at their disposal. We will discuss various international regulations in regard to tax data collection (such as the SAF-T, Country-by-Country reports, Mandatory disclosure rules, DAC 7, exchange of information, real-time reporting). In this session, next to exploring the collection of data, we will discuss legal protection in the context of data collection.

After this part of the classes, lunch will be provided.

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Introduction to programming

This session is dedicated to the exploration of practical skills necessary for dealing with any type of data structures that are available to any programmer. You will also get to know what the main differences between these structures are. This class is dedicated to working on practical projects. We will introduce you to the world of programming where, within a tight timeframe, we will teach the participants the foundations of programming and the dictionary of programming.

Data and ERP Systems

In this session, we will focus on the overview of the inner workings of current ERP systems and their tax treatments. We will explore what ERP systems are. In addition, we will teach you how to identify different types of ERP systems and recognize how various components of an ERP system work together. At last, we focus on the recognition of the tax treatments associated with ERP systems. This session also includes the use of ERP systems for transfer pricing purposes.

Real time reporting and ERP Systems

In this session, we will explore the consequences of real-time reporting for ERP systems. You will learn about keyways in which real-time reporting can impact ERP systems. A strong focus on technology will be placed on how different settings influence the outcome of the financial reports. In addition, the consequences of the introduction of Pillar 1 and Pillar 2 for the ERP systems design will be discussed.

After the classes dinner is provided.

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Day 2 – 30th January 2023
University of Antwerp

A functional taxonomy of AI fiscal governance in the EU

This presentation will outline the current state of use AI by tax administrations in the EU, the Member States that make use of AI, the types of AI models used, and the different functions performed.

The legal limits of webscraping

This part of the program will discuss the automated collection of data through webscraping and will explore the relevant case law of the ECHR as well as the GDPR requirements to define the legal limits of webscraping. How does the practice of webscraping relate to the prohibition of fishing expeditions?

Getting ready for data analysis: what about data quality

The reliability of predictive machine learning models can be compromised when trained on low quality data. Algorithms that can automatically identify low quality data in datasets are highly desired. This session will explore one of such algorithms, based on the Shapley value, along with its challenges and limitations.

Predictive algorithms for fraud detection

One of the many application areas of Artificial Intelligence are predictive algorithms, which can automate decision processes, normally made by humans. After providing a general introduction about such algorithms, we will explore through a case study their potential for detecting tax fraud from data. What benefits can these algorithms bring? And perhaps more importantly: what challenges and risks do they give rise to?

After this part of the classes, lunch will be provided.

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Algorithmic bias and automation bias: the legal perspective

This session will explore how the legal system sets limits to discriminatory biases. How do fundamental rights protect taxpayers from biased decision-making?

Methods to measure bias and mitigate unfairness when constructing machine learning models

In this presentation, we will demonstrate an overview of recent research on measuring bias in data and how to avoid such bias to result in unfair models.

Data analysis and automated decision-making transparency requirements

Data collection and automated decision-making systems have now become an integral part of our daily lives. This type of innovation also seems to have brought new risks – risks to fundamental rights, distrust and disruptions of institutional processes. In the context of automation, transparency has been hailed as the new keyword. Yet, transparency is an elusive concept spanning across different areas of the law. This presentation will showcase the different transparency requirements, in ECtHR jurisprudence, the GDPR and the Proposal for the AI Act.

How to explain the black box decision

By making use of complex modeling techniques, entities are able to create models with high and sometimes superhuman predictive performance. However, given their complexity, these models are often used as black-boxes. In this presentation, we will discuss how different XAI algorithms can be used to explain black-box predictive models.

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