

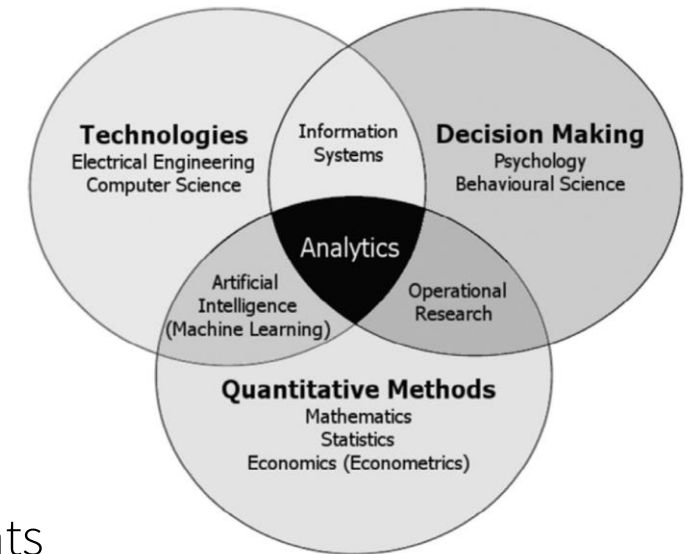
Minor Analytics in eServices and Operations

Univ.-Prof. Dr. Jan Fabian Ehmke, Assoz.-Prof. Dr. Wenjie Tang



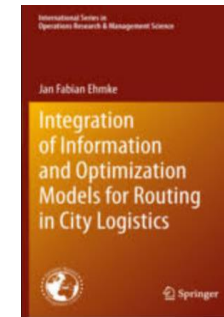
Minor Analytics in eServices and Operations

- New minor on the **interface of Business Analytics and E-Business**
- Methodologically and research-oriented with examples from relevant applications
- Goal: Solid methodological knowledge for the **statistically sound analysis of large amounts of data** in business decision making, esp. eServices and Operations
- Provide access to Business Analytics methods for (I)BW students
- Allow for extending of visualization knowledge for Business Analytics students



Prof. Dr. Jan Fabian Ehmke – Curriculum Vitae

- 2007 | TU Braunschweig: Diplom Wirtschaftsinformatik
- 2011 | TU Braunschweig: Dissertation *Integration of Information and Optimization Models for Routing in City Logistics*
- 2012 | U Iowa: PostDoc at Department of Business Analytics
- 2013 | FU Berlin: Assistant Professor Advanced Business Analytics
- 2016 | Viadrina: Associate Professor BWL/Business Analytics
- 2017 | OVGU: Professor of BWL/Management Science
- Since April 2020: Professor of Business Analytics @UV



FWF

Der Wissenschaftsfonds.



FFG

Forschung wirkt.

DFG

Deutsche
Forschungsgemeinschaft

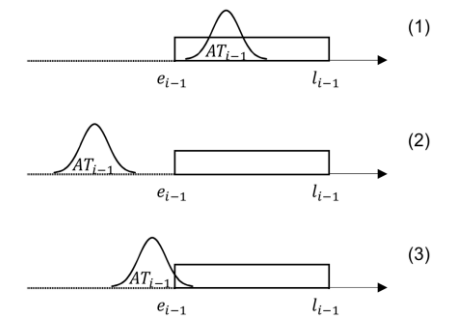


Transportation Science
and Logistics Society

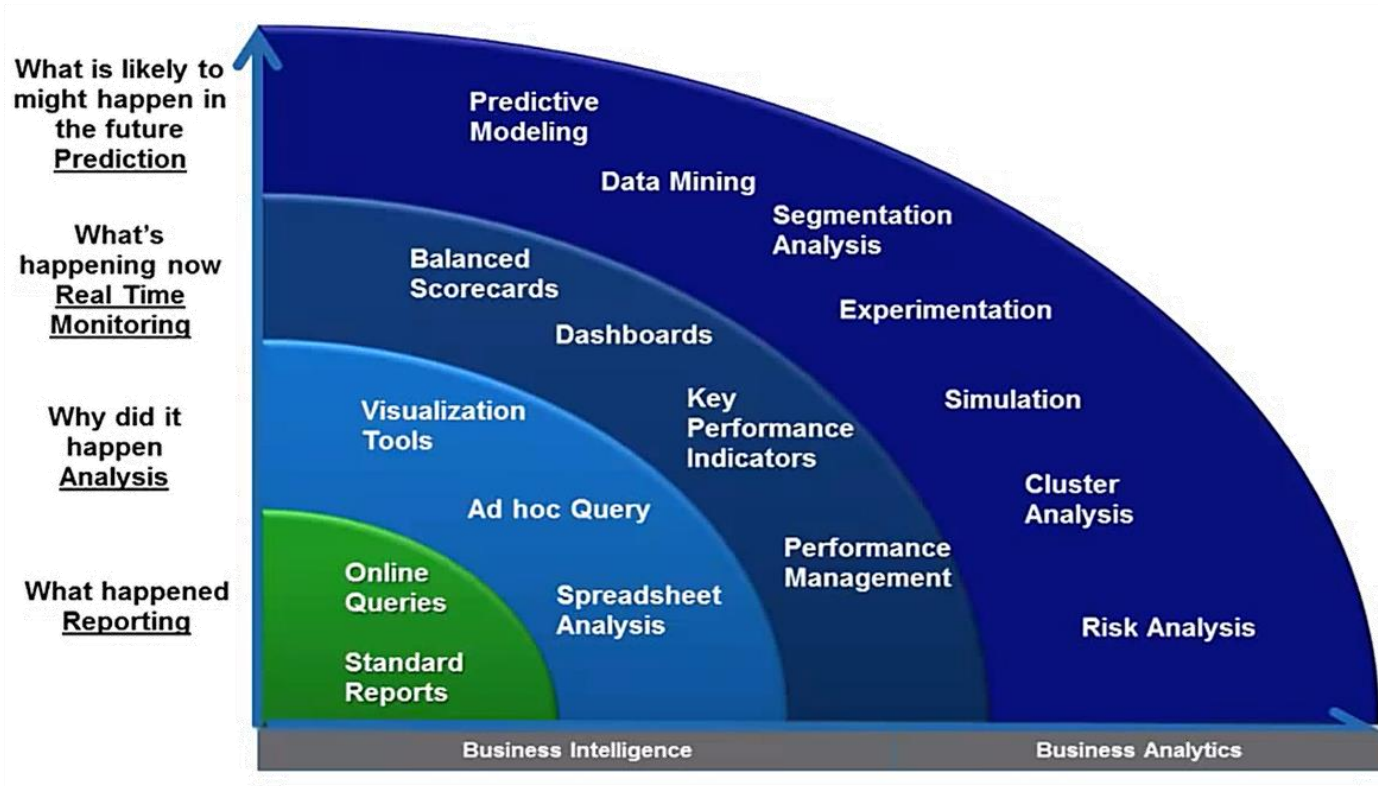


Teaching and Research

- Research Methods
 - Business Analytics and Data Mining
 - Dynamic and Stochastic Optimization
- Teaching
 - Business Analytics, Doing Data Science
 - Advanced Computational Transportation
- Recent Research Projects
 - Intelligent Urban Transportation
 - Reliable and environmental-friendly schedules for railway systems
 - Customer-induced Orchestration of Services



What is Business Analytics?

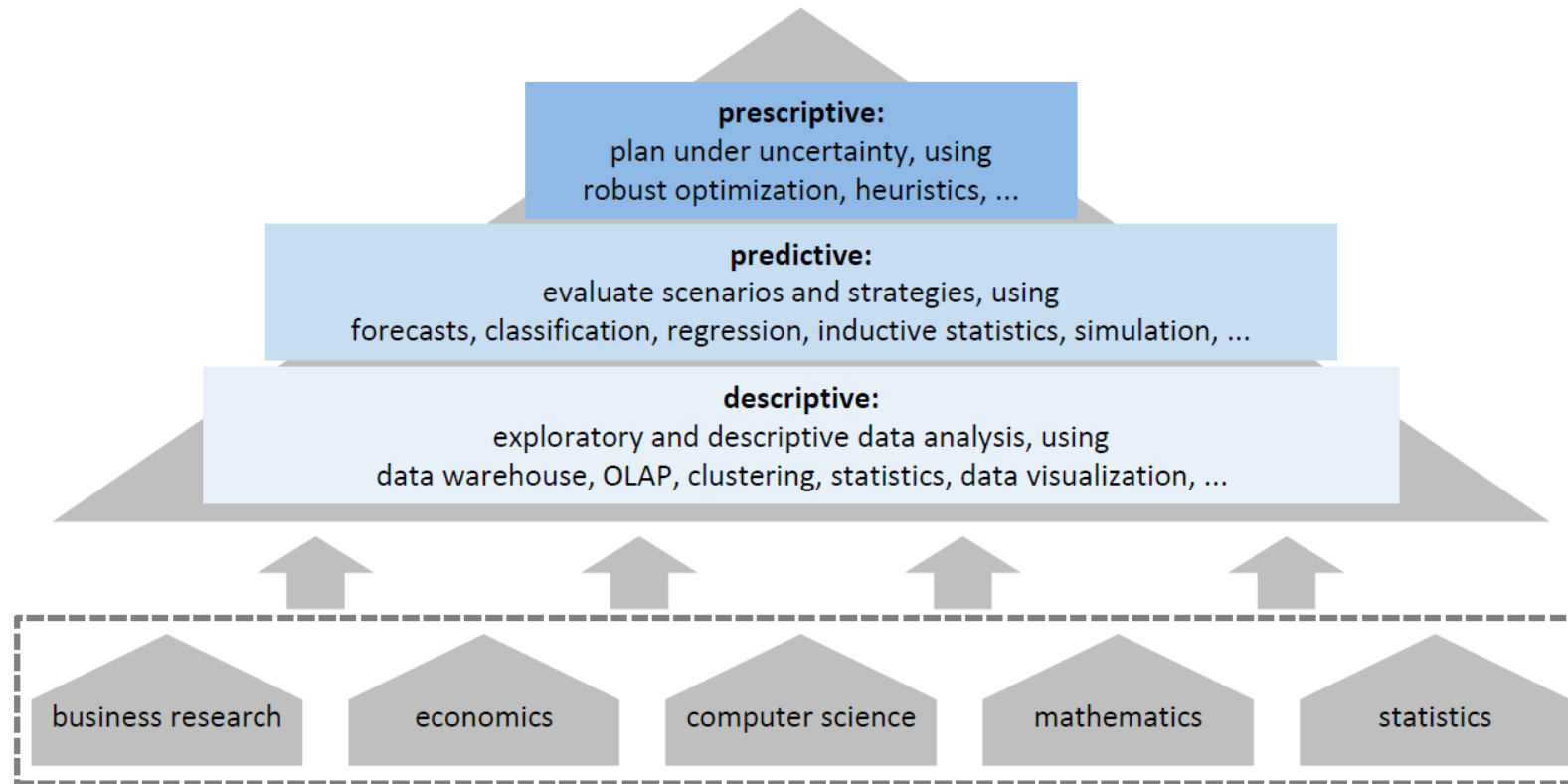


INFORMS defines analytics as the scientific process of transforming data into insights for the purpose of making better decisions.

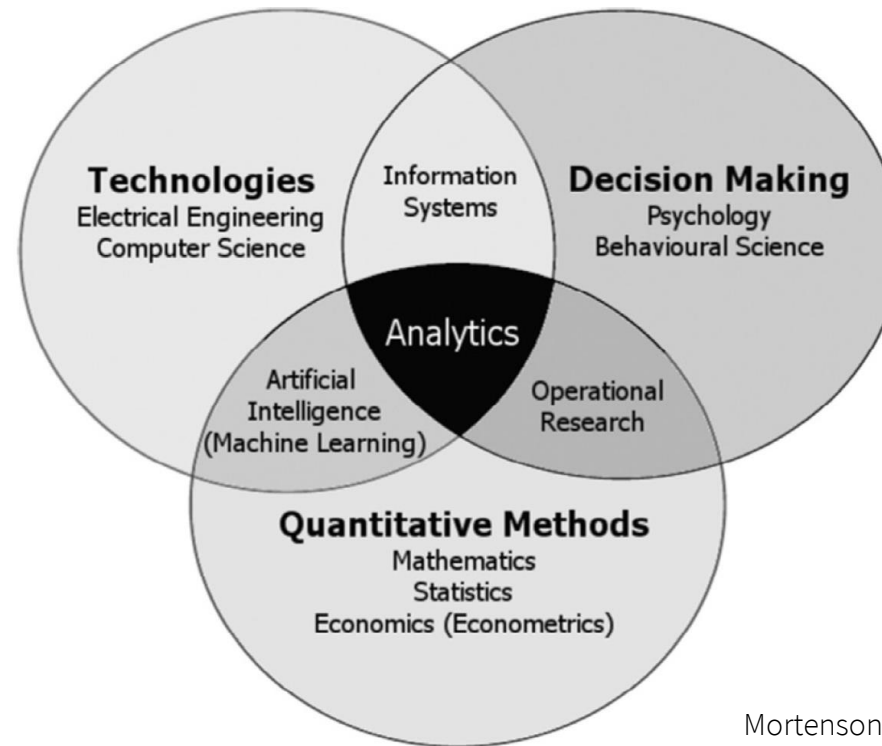
Analytics is always an action-driven approach. There is always a decision to be made when we look at doing analytics.

Business analytics: ensure our analysis is driving business action.

Methods of Business Analytics



Analytics and Related Disciplines



Mortenson et al. (2015)

Master (I)BW – Modules – WS 2024/25

Mgmt I – Marketing (Fuchs)

Mgmt II – Production, Logistics, SCM (Braune)

Data Analytics (Wassermann)

Principles of Decision Support (Tilk)

Fundamentals (12 ECTS)	 Statistical Learning and Analytics (Tang, 3 SSt, 6 ECTS) 	Transportation Analytics & Optimization Tools (Vehicle Routing Problems, Exact and Heuristic Optimization Techniques, Metaheuristics, Implementation) (Tilk, 3 SSt, 6 ECTS)	
	Advanced Business Analytics (Data Understanding, Supervised & Unsupervised Learning, Association Analysis, Model Evaluation) (Ehmke, 3 SSt, 6 ECTS)		
Methods /Apps	Methods and Applications of eServices and Operations (2 SSt, 4 ECTS)		
	Simulation I (Tandogan)	Simulation II (Baumgartner)	Metaheuristics (Scherr)
	Advances in eServices (2 SSt, 4 ECTS)		
Seminar	Seminars on Recent Topics offered by Kocatürk and Strauß		

✗ Not offered in winter 2024

Master Business Analytics – Modules – WS2024/25

Fundamentals (12 ECTS)	 Statistical Learning and Analytics (Tang, 3 SSt, 6 ECTS) 	Transportation Analytics & Optimization Tools* (Vehicle Routing Problems, Exact and Heuristic Optimization Techniques, Metaheuristics, Implementation) (Tilk, 3 SSt, 6 ECTS)		
	Visualisation and Visual Data Analysis (Visual design principles, data acquisition and representation, data interaction principles, evaluation of visual analysis systems) (Möller, 3 SSt, 6 ECTS)			
Methods /Apps	Applications of eServices and Operations (2 SSt, 4 ECTS)			
	Simulation I (Tandogan)	Transportation Analytics* (Tilk)	Metaheuristics (Scherr)	Ökonometrie & Statistik (Wassermann)
Seminar	Advances in eServices (2 SSt, 4 ECTS)			
	Seminars on Recent Topics offered by Kocatürk and Strauß			

* If you have chosen this class as fundamental, it cannot be chosen as elective and vice versa.

~~✗~~ Not offered in winter 2024

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- For more information, see details on the minor's webpage:
<https://bda.univie.ac.at/teaching/master/minor-analytics-in-eservices-and-operations/>
- Further questions: please contact us via busan.bda@univie.ac.at

