Business PF
Business School
Fakultät für Wirtschaft und Recht
Hochschule Pforzheim

HS PF

Syllabus
MAR3115E Data Storytelling
Prof. Dr. Margarita Bidler
Summersemester 2024

Level	Bachelor	
Credits	3	
Student Contact Hours	2	
Workload	hours of attendance: 28 an additional 60 hours of self-study (i.e., working on the project / presentation).	
Prerequisites	none	
Time	Thursday, 5.15 – 6.45 pm	
Room	W1.3.02	
Start Date	03/21/2024	
Lecturer	**Name**	Margarita Bidler
	Office	W2.4.04
	Virtual Office	
	Office Hours	Thursday 12.00 – 1.30 pm Appointment by mail
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Summary

Today, data is ubiquitous. In times of Big Data and advanced analytics, we have more information available than ever before. In this multitude of data, one skill is becoming increasingly important: data storytelling is the concept of building a compelling narrative based on complex data and analytics that help tell your story, influence and inform relevant stakeholders, and enable data-driven decision-making.

The course introduces students to the concept of data storytelling. Students learn about the whole process from data preparation, data handling, visualizing data, deriving meaningful implications, and presenting them in a compelling storyline to drive data-based decision-making. The lecture provides both psychological and design concepts as well as hands-on technical approaches for creating persuasive data reports.

Students work on their own data storytelling project in small groups. They are presented in a final presentation, so that in addition to technical and methodological knowledge, rhetorical skills in communicating data are also trained.

Outline of the Course

- What is Data Storytelling and why is it important?
- Information processing & persuasion theory
- Argue with data: What makes a strong narrative?
- Working with data: From data preparation to finding the story behind the data
- Data visualization
- PowerPoint, Dashboard, Infographics, and more
- Deep dive: Dashboards
- Gamification and Ethics in data storytelling
- Presentations: Student projects

Course Intended Learning Outcomes and their Contribution to Program Intended Learning Outcomes / Program Goals

Program Intended Learning Outcomes		Course Intended Learning Outcomes	Assessment Methods		
	After completion of the program the students will be able…	After completion of the course the students will be able…	Project Work	Presentation	Project Work
			50%	20%	30%
			Collective	Individual	Individual
1	**Expert Knowledge**				
1.4	...to solve business problems based on profound data research skills and by applying quantitative methods.	… to understand and tackle business problems and identify business opportunities through a data-based approach (i.e., strong data driven evidence)	x		
2	**Digital Skills**				
2.3	...to effectively use digital technologies to interact, to collaborate and to communicate.	...to effectively use digital tools such as dashboards, interactive presentations or infographics to communicate to decision makers			x
3	**Critical Thinking and Analytical Competence**				
3.1	...to implement adequate methods in a competent manner and to apply them to complex problems.	...to use adequate methods for data preparation and visualization to understand complex business problems form a data perspective and derive implications based on identified data trends.	x		
3.2	...to critically reflect and interpret findings and to develop comprehensive solutions for complex problems.	...to critically reflect data, combine various relevant data sources, interpret findings and to derive coherent implications	x		
4	**Ethical Awareness**				
	...to develop sound strategies in the areas of ethics, sustainable development and social responsibility and are able to apply them to typical economic decision-making problems.	… to consider ethical aspects when working with data to tell a compelling story. Students build data stories free of biases.	x		
5	**Communication and Collaboration Skills**				
5.2	...to demonstrate their oral communication skills in presentations.	… to convince business stakeholders through strong oral communication with the help of a data stories.		x	
6	**Internationalization**				
6.2	...to articulate themselves in a professional manner in international business.	...to articulate and discuss data business cases and data reports in a professional manner in international business contexts.		x	

Teaching and Learning Approach

After lectures introducing students to the concept of Data Storytelling and the discussion of best practice use cases, students are required to apply their theoretical knowledge: For an individual assignment, each student is required to complete a data visualization task. Further, students work in small groups on a data story. The final presentations of those data stories will be discussed during lecture, helping to deepen data literacy.

Literature and Course Materials

Dykes, B. (2019). *Effective data storytelling: How to drive change with data, narrative and visuals*. John Wiley & Sons.

Knaflic, C. N. (2015). *Storytelling with data: A data visualization guide for business professionals*. John Wiley & Sons.

Ojo, A., & Heravi, B. (2018). Patterns in award winning data storytelling: Story types, enabling tools and competences. *Digital Journalism, 6(6), 693-718*.

Assessment

Each student must complete a data visualization task (analysis of small data set and visualization in an appropriate manner). This will account for 30% of the final grade.

Moreover, students will be required to work on a Data Storytelling project in small groups. The projects are presented and discussed during lecture (50% for project; 20% for rhetorical skills).