IPSDS
INTERNATIONAL PROGRAM
IN SURVEY & DATA SCIENCE

Big Faculty Meeting

October 24, 2019

Agenda

1. Report on 2018/2019 activities
2. Course schedule 2020
3. Update on IPSDS sustainability efforts
4. Networking opportunity for faculty
5. Instructional support + tools

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Report on 2018/2019 activities

Report on 2018/2019 activities

- Admitted 3rd and 4th cohort (17 and 15 participants)

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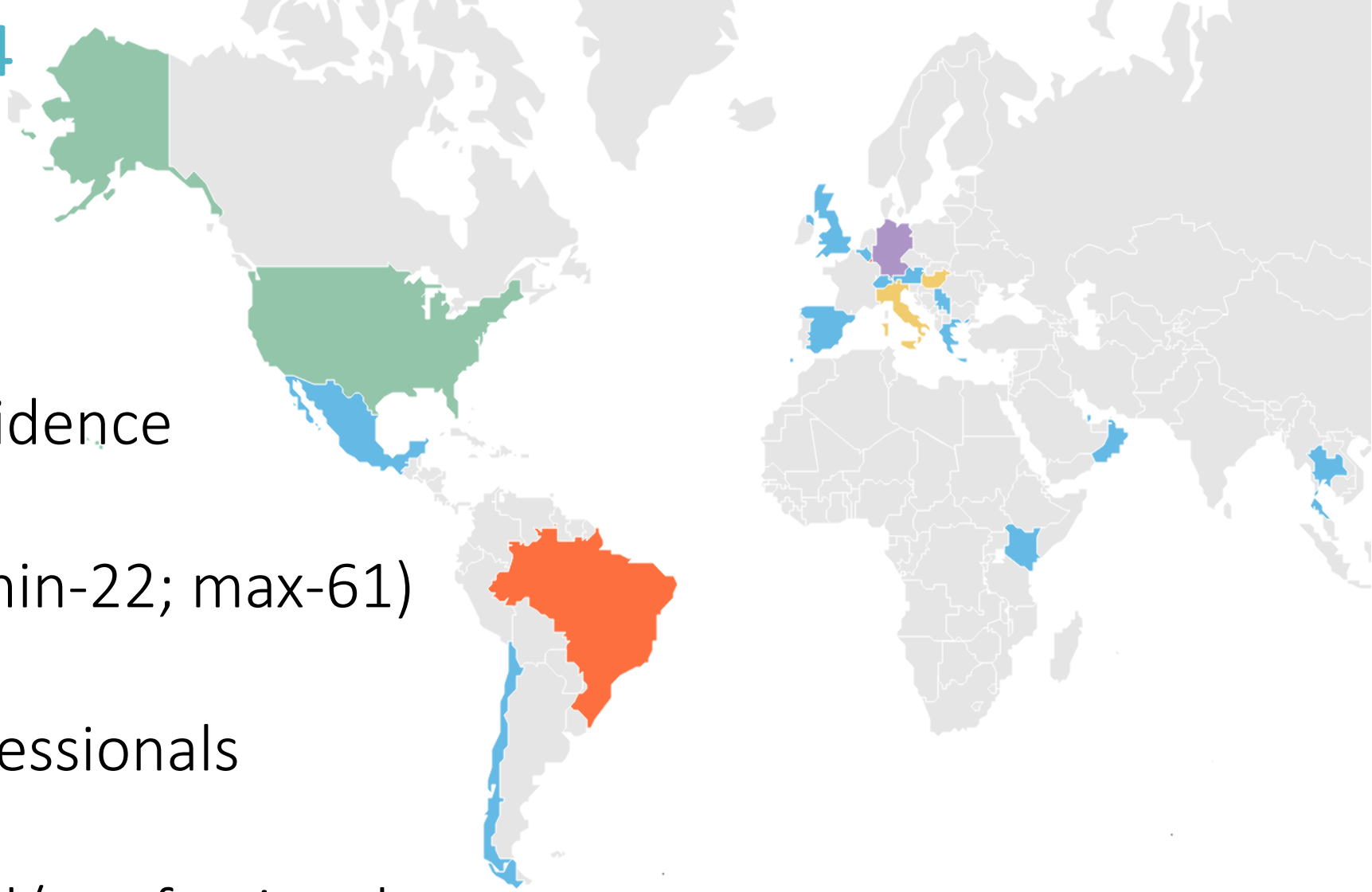
IPSDS (Test) Cohorts 1-4

- 58 Participants (31 f + 27 m)
- 22 countries of residence
- Age: median=31 (min-22; max-61)
- 100% working professionals
- Diverse educational/ professional backgrounds



Cohorts 1-4 (Connect@IPSDS 2016-2019)

2016

2017

2018

2019

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- Events:

  Connect@IPSDS and

  Women in Data Science

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Connect@IPSDS

- Day1: create a community within IPSDS students
- Day2: open to audience interested in data science

Speakers

- Roberto Rigobon (Professor at the MIT Sloan School of Management)
- Mine Cetinkaya-Rundel (Professional Educator at RStudio)
- Hilary Parker (Data Scientist at Stitch Fix)
- Curtiss Cobb (Survey Scientist and Manager, Facebook)
- And many more

WiDS 2018 and 2019

Report on 2018/2019 activities

- Admitted 3rd and 4th cohort (17 and 15 participants)
- Events: Connect@IPSDS and Women in Data Science in 2018 and 2019
- Development of Data Science courses, Project consulting course with real data and clients and Certificate Program

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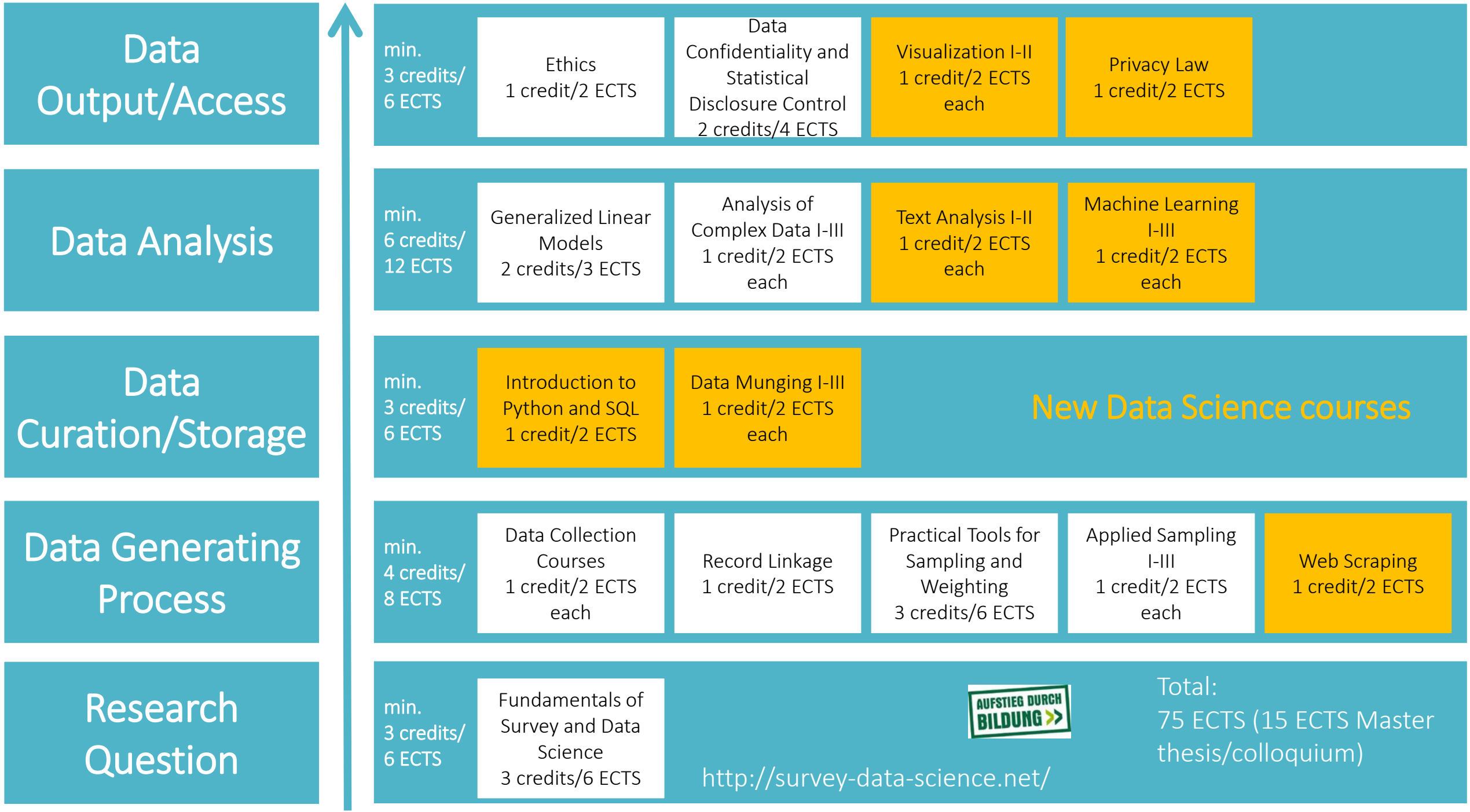
Data Output/Access
min. 3 credits/ 6 ECTS
Ethics 1 credit/2 ECTS
Data Confidentiality and Statistical Disclosure Control 2 credits/4 ECTS
Visualization I-II 1 credit/2 ECTS each
Privacy Law 1 credit/2 ECTS
Data Analysis
min. 6 credits/ 12 ECTS
Generalized Linear Models 2 credits/3 ECTS
Analysis of Complex Data I-III 1 credit/2 ECTS each
Text Analysis I-II 1 credit/2 ECTS each
Machine Learning I-III 1 credit/2 ECTS each
Data Curation/Storage
min. 3 credits/ 6 ECTS
Introduction to Python and SQL 1 credit/2 ECTS
Data Munging I-III 1 credit/2 ECTS each
New Data Science courses
Data Generating Process
min. 4 credits/ 8 ECTS
Data Collection Courses 1 credit/2 ECTS each
Record Linkage 1 credit/2 ECTS
Practical Tools for Sampling and Weighting 3 credits/6 ECTS
Applied Sampling I-III 1 credit/2 ECTS each
Web Scraping 1 credit/2 ECTS
Research Question
min. 3 credits/ 6 ECTS
Fundamentals of Survey and Data Science 3 credits/6 ECTS
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http://survey-data-science.net/
Total:
75 ECTS (15 ECTS Master thesis/colloquium)

Certificate Program

12-credit online program, required courses + electives, < 2 years

- Certificate in Fundamentals of Survey Methodology

(Fundamentals, Sampling I, Questionnaire Design + Electives)

- Certificate in Fundamentals of Survey Statistics

(Fundamentals, Sampling I, Inference from Complex Surveys + Electives)

- Certificate in Fundamentals of Data Science

(Fundamentals, Intro to Big Data and ML, Intro to Python/SQL, Web Scraping and APIs, Intro to Data Visualization, Privacy Law + Electives)

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- Events: Connect@IPSDS and Women in Data Science in 2018 and 2019
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- Lessons learned

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Lessons Learned – Students Perspective

- 3 to 5 years to complete the program if working full time
- Workload management is a challenge for many
- Desire for more structure (while loving flexibility)
- On-site events are helpful for networking and learning
- More workplace orientation (more hands-on; project oriented)

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Peer-to-Peer-Learning & Networking: Group Work

Onsite and online!

Course schedule 2020

Courses Spring 2020

January	February	March	April	May
642 Project Consulting				
732 Practical Inference from Complex Surveys				
656 Web Survey Methodology				
704 Computer-Based Content Analysis II				
	631 Questionnaire Design			
	726 Multiple Imputation			
	751 Big Data and Machine Learning			
		699J Generalized Linear Models		
		735 Data Confidentiality and Stat. Disclosure Control		
			635 Usability Testing for Survey Research	
			699? Sampling II	
			752 Data Visualization I	

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Courses Summer 2020

June	July	August
699M Review of Statistical Concepts		
699? Modern Workflows in Data Science		
702 Analysis of Complex Sample Survey Data		
736 Web Scraping and API		
699? Machine Learning II		
667 Record Linkage		
	699E Survey Design and Implementation in International Contexts	
	673 Python/SQL	

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Courses Fall 2020

September	October	November	December
400 Fundamentals of Survey and Data Science			
665 Introduction to Real World Data Management			
747 Practical Tools I (for Sampling)			
627 Experimental Design			
730 Measurement Error			
626 Sampling I			
673 Python/SQL			
624 Privacy Law			
699? Data Ethics			
703 Computer-Based Content Analysis			
725 Item Nonresponse and Imputation			

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Update on IPSDS sustainability efforts

Update on IPSDS sustainability efforts

Organization

- Mannheim Business School
- Office of Extended Studies Maryland
- International Statistical Institute/Government Agencies/UNECE
- Name of the program

Scaling enrollment

- Single-sign on (extended online short courses)
- Max. #of participants? Reduced video meetings?

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Networking opportunity for faculty

Networking opportunity for faculty

- Slack (Raphael Nishimura)
- Dropbox (Carolina Haensch)
- What would you like to see?

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Instructional support + tools

Instructional support + tools

- Discussion forums (Florian Keusch)
- Piazza (Raphael Nishimura)

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Thank you for being a part!

ipsds@uni-mannheim.de
survey-data-science.net