International Program in Survey and Data Science: Lessons learning

by Karin Frößinger, IPSDS Program Manager/Project Coordinator
We are pleased to announce the launch of the International Program in Survey and Data Science (IPSDS). Fundamental changes in the nature of data, their availability, the way in which they are collected, integrated, and disseminated are a big challenge for all those working with designed data from surveys as well as organic data. IPSDS was developed in response to the increasing demand from researchers and practitioners for the appropriate methods and right tools to face these changes. We offer a multidisciplinary curriculum, world-class faculty, and a web-based learning environment that allows you to take courses from anywhere in the world.
The project on which this report is based was promoted with funds from the Federal Ministry of Education and Research under the reference number [16OH22064]. Responsibility for the contents of this publication lies with the author.
Faculty from Universities and Industry

- Utrecht University
- The University of Manchester
- Australian National University
- Pontificia Universidad Católica de Chile
- LMU Ludwig-Maximilians-Universität München
- University of Michigan
- Deutsche Bundesbank Eurosystem
- Institute for Employment Research
- United States Census Bureau
- Bureau of Labor Statistics
- U.S. Department of Labor
- Google
- Facebook
Participants
IPSDS (Test) Cohorts 1-3

- 47 Participants (27 f + 20 m)
- 19 countries of residence
- Age: median=31
- 100% working professionals
- Diverse educational/professional backgrounds
Program Structure
Problems we tried to solve – in brief

Key elements:

▪ Flexible web-based learning environment
▪ Live (video) interaction with faculty and students
▪ Face-to-face networking meetings
Advantages of Flipped Teaching

- more opportunities for interactivity in (online) discussions
- more personalized guidance
- more time for feedback
- deeper learning

Source: Derek Bruff at https://goo.gl/Nrt1xA
• Lectures, interviews and discussions with experts, demonstrations of specific techniques and software tools

• Lectures are broken into easily-digestible sessions

• Students engage with the material at their own pace: e.g., replay parts that cover difficult concepts
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Virtual Classrooms

- Weekly mandatory online meetings (50 minutes)
- Discuss students’ questions
- Review problems with assignments
- Collaborative problem solving
- Motivate students to persist in the course
- Break out rooms, (private and public) chats, polls ...
May 31st-June 1st, 2019

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

Renowned speakers

• Roberto Rigobon (Professor at the MIT Sloan School of Management)
• Mine Çetinkaya-Rundel (Associate Professor at Duke University, Professional Educator at RStudio)
• Hilary Parker (Data Scientist at Stitch Fix)
Lessons Learning
Lessons Learning

• Feasibility of combining studies with work and family

• Biggest challenge: workload management

• Balancing flexibility and consistency

• On-site events are helpful
YOUR Questions
Thank you for your attention!

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BMBF-Study: Online Communication

**Synchronous Communication**
Fundamentals of Survey and Data Sc.

- 11 online discussions (mandatory)
- 16 students

**Asynchronous Communication**
Data Collections Methods

- 1 introductory online meeting
- Discussion forums
- 15 students

- 12 weeks/6 ECTS
- Post questions
- Answer/comment questions of other students
Synchronous Communication
Fundamentals of Survey and Data Sc.

- Stronger sense of community and belonging
- Immediate feedback
- All students successfully finished the course

Asynchronous Communication
Data Collections Methods

- Greater flexibility
- More time for reflection
- Less workload
- 2 drop outs
BMBF-Study: Flexibility

Instructor-Paced Format

- Weekly online meetings
- Set dates for all assignments and final exam

Self-Paced Format

- 4 ECTS/ 8 + 1 weeks
- 8 participants

- 1 introductory online meeting
- Only 1 deadline: all assignments and final exam due in the ninth week
BMBF-Study: Flexibility

Self-Paced Format

• 4 drop outs
• Flexibility with deadlines for assignments appreciated
• Biggest challenge: time management
Canvas

Course description/General Information
Topics covered, syllabus, additional resources

New units auto-display each week. Each unit includes:
- Readings (Note reference to book chapter, URLs, PDFs)
- Slides
- Lecture videos
- (Link to external resources)
- (Additional material)
- Zoom link for online meeting + date and time
- Discussion forum for submitting questions/student-instructor interaction
- Homework
  - Quiz (autograded)
  - Assignment submission
  - Solutions