Applied Data Science in Europe
Challenges for Academia in Keeping Up with a Highly Demanded Topic

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Data Scientist := “A data analyst who lives in California.” (Malcolm Chisholm)

Data Science := “Unique blend of skills from analytics, engineering & communication aiming at generating value from the data itself […]” (Datalab)
Transition US → Europe

• We don’t have Internet Behemoths

• But we have
  • Banks and Telcos
  • Industry (Automotive, Engineering, …)
  • Retailers (online, local, small, big)
  • Smart [Grid/Mobility/…] Initiatives
  • Societal Challenges
  • …

→ «Big Data»
→ «Industry 4.0» (Sensors)
→ «Analytics»
→ «IoT»
→ «PRISM», «Open Data»
Our Role as Academia

• Shape discussion accordingly
• Uphold quality standard

➔ Develop Curriculum
A Datalab View

Data Scientist

- Scientific Method
- Simulation
- Feature Engineering
- Natural Language Processing
- Graph Analytics
- Predictive Modeling
- Machine Learning
- Data & Text Mining
- Artificial Intelligence
- Analytics

Data Management
- Business Intelligence
- Big Data
- Information Retrieval
- Databases
- Mashups
- Data Warehousing
- Visualization
- Art & Design
- Communication

Computer Science
- Programming
- Privacy & Security
- Distributed Systems
- Cloud Computing
- Technology & Infrastructure

Entrepreneurship
- Data Product Design
- Domain Knowledge
- Ethics

- pragmatic
- creative
- curious
- scientific mindset
- business thinking
More Discussions?

1st Swiss Workshop on Data Science SDS 2014


Sign up for more information
Backup
Curriculum Draft

• Database / Cloud Computing / Big Data
• Data Mining, Statistics & Predictive Modeling
• Machine Learning & Graph Analytics
• Information Retrieval & Natural Language Processing
• Business Intelligence & Visual Analytics
• Data Warehousing & Decision Support
• Communication & Visualization of Results
• Privacy, Security & Ethics
• Entrepreneurship & Data Product Design

Continuous real world projects ➔ business cases with impact