

Beyond AI & Data Science - Expectation of a new Data Scientist

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Dr. Markus (Schaal) - Short Academic CV

- ▶ 1990: Start of Study, first Email sent and received
- ▶ 1993: Exchange student in Uppsala, Sweden (ERASMUS)
- ▶ 1995: Practical Traineeship with Modi Olivetti, New Delhi, India
- ▶ 1996: Diplom-Informatiker (MSc in Computer Science), University of Stuttgart
- ▶ 1996-1999: Worked with Prof. Radermacher, a member of the Club of Rome, an organisation of individuals who share a common concern for the future of humanity and strive to make a difference.
- ▶ 2000-2004: Dr.-Ing. at the Graduate School for Distributed Information Systems
- ▶ 2005-2010: Teaching at Bilkent University, Ankara, Turkey
- ▶ 2010-2011: Teaching at METU-NCC, North Cyphrus
- ▶ 2011-2013: Post-Doc at UCD in Dublin, Ireland
- ▶ Since 2017: Professor at BSEL - Berlin School of Economics and Law
- ▶ **My Research Interest: Supporting Objectivity and Participation - Artificial Intelligence for Political Transparency**

Dr. Markus (Schaal) - Data Science History

- ▶ 2011-2013: Post-Doc at UCD in Dublin, Ireland - Working with Prof. Barry Smyth and Ruihai Dong et al. on Reviews and Review Writing
- ▶ Since 2013: First Data Science Lead, then Head of Data Science, and now Data Science Advisor - Enabling Companies to use the Oil of the 21st century - their Data - to increase their business value!
- ▶ Since 2017: Professor at BSEL - Berlin School of Economics and Law - Research Work on Topic Mining for Multi-National ParlSpeech Transparency
- ▶ My Data Science Interest: Towards Perfect Market Transparency - Artificial Intelligence as a tool to guide providers and consumers!

Unleash AI Potential

- ▶ Need to organize thinktank-like workshops with B2B partners, and even with competitors
- ▶ **Why:** Because nobody knows the full impact of AI now that technology advances faster than human thought
- ▶ Future money system unclear
- ▶ Future security/ nation-state system unclear
- ▶ Nonetheless, boundary conditions of course still exist
- ▶ **But:** Novel organizational structures, laws, etc. might be needed, better to find out early!

New Challenges (technical in the past)

- ▶ Organizational ...
 - ▶ Not enough knowledge for choosing the right data scientist, software architect, etc.
 - ▶ No idea about pricing
 - ▶ Expertise must be installed at top-level
- ▶ Human ...
 - ▶ Need to adapt to new tools
 - ▶ Some tools might be frightening (job danger)

Expectations for Data Scientists (e.g. MBA-IT)

- ▶ Not clear
- ▶ Need to demonstrate your ability
- ▶ Need to explain your role and impact
- ▶ Good team players, especially because and if you know the new tools better than older/ better paid or or older/ less paid colleagues

How to prepare Companies for Digital Transformation & Full Impact of AI

- ▶ Experience with Predictive Analytics:
 - ▶ 2013: Few companies were able to understand its importance and to use it for better marketing
 - ▶ 2023: More companies understand its importance but still few are able to use it for better marketing
- ▶ Public administration starts to invite experts for AI counseling, before there was hardly any knowledge or readiness for transformation!
- ▶ Raise awareness! Develop future visions! Strategically implement pathways of transition!

Current Trends in AI - Industry Case

1. Predictive Analytics
2. Automated Marketing
3. Anomaly Detection
4. Root Cause Analysis
5. Intelligent Advice
6. Automated Response/ Optimization

Knowledge Sharing

- ▶ Sustainability
- ▶ IT Management & Ressource Sharing
- ▶ Online Meetings on Teaching Practices

Discussion

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