How To Develop Data Science Products at Scale

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Data science is rapidly becoming the primary catalyst for product innovation and process optimization. However, most data science projects are stuck in the proof of concept (POC) phase. Christian and René have had the chance to be part of GfK’s journey from a traditional market research company to a prescriptive data analytics provider over the last three years. Using examples from their daily development work, they will share what they have learned about how to address three crucial challenges:

- How to get a data science solution into production:
  To build end-to-end data-driven products successfully, it is necessary to blend what existing frameworks like SCRUM and CRISP provide with the best practices from software engineering. You will learn about how GfK gradually established a data science development lifecycle that overcomes the POC trap by taking production realities into consideration from day one.

- How to handle client questions and ensure correct model behavior in production:
  Once models are used by clients, new challenges arise: How to react to client requests while developing further functionality, and how to make sure that the deployed models are still working correctly. In order to accomplish both of these goals, GfK developed analytics QA practices, where models are continuously steered by a system of quality performance indicators (QPIs).

- How to scale the methodology:
  Data science business cases often require scalability across the entire application domain to be profitable: Predictive maintenance models which are initially developed for plant A should also at some point be rolled out for plant B.

The last part of the presentation will showcase how to integrate scalability requirements into the development process.

Biography:
René Traue holds a degree in business administration and did a Master in International Information Systems (IIS) at FAU. Before he joined GfK, he blended loyalty card, transaction, geographical, and market research data at a German drugstore chain. At GfK, he works as a Senior Data Scientist where he leads a team which is developing end-to-end prescriptive analytics solutions for Brand & Marketing managers.

Christian Lindenlaub holds a master degree in statistics (from LMU Munich). Before joining GfK Global Data Science, he worked for an electric utility and for GfK Geomarketing where he helped clients exploit their regional market potential. Nowadays, Christian works as a Senior Data Scientist and leads a team which is developing end-to-end prescriptive analytics solutions for the Sales Persona in the durable goods and electronics industries.