HOCHSCHULE LUZERN



Hybrid Management Model

Combination of Design Thinking and Big Data/Analytics as agile Innovation Tool

Michael Lewrick, PhD, MBA michael.lewrick@swisscom.com

Prof. Dr. Patrick Link patrick.link@hslu.com

The 10th Annual Front End of Innovation EMEA 5-7 October, 2016

DAS DESIGN THINKING PLAYBOOK

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MIT TRADITIONELLEN, AKTVELLEN
VND ZVKUNFTIGEN ERFOLGSFAKTOREN

HERAVICEBER:

MICHAEL PATRICK LEWRICK LINK

LARRY LEIFER MIZA Y FIZIEKANC:

NADIA LANGENSAND

VAHI



LEWRICE LINK LEIFER

VAHLEN

VAHLEN

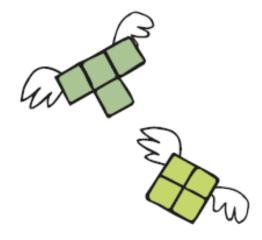


DAS DESIGN THINKING PLAYBOOK



A • TRADITIONEUE ERFOLGS FAKTOREN IM DESIGN THINKING 1.1. Für wen ist das Buch? 1.2. Was heisst es den Prozess im Griff zu haben? 1.3. Wie entlaten wir eine gute Problemdefinition? 1.4. Wie entdecken wir Bedürfnisse von Nutzern? 1.5. Wie bauen wir Empathie zum Nutzer auf? 1.6. Wie generieren wir Ideen? 1.7. Wie strukturieren und selektieren wir Ideen? 1.8. Wie finden wir den richtigen Fokus? 1.9. Was macht einen guten Prototyp aus? 1.10. Wie können wir effizient testen?

2.1. 2.2.	Wie gestalten wir kreative Räume und Umgebungen? Welchen Mehrwert bieten uns interdisziplinäre Teams?
2.2.	Welchen Mehrwert bieten uns interdisziplinäre Teams?
2.3. 2.4.	Wie visualisieren wir Ideen und Geschichten?
2.4.	Was macht eine gute Geschichte aus?



3. ZVEÜNFTIGE ERFOLGS FAKTOREN IM DESIGN THINKING

3.1.	Wie System Thinking uns hilft die Komplexität zu verstehen
3.2.	Wie bauen wir ein "Lean" Geschäftsmodell auf?
3.3.	Welche Fähigkeiten bedarf es für "Strategic Foresight"?
3.4.	Wie implementieren wir unsere Lösungen erfolgreich?
3.5.	Was sind die Designkriterien der Digitalisierung?
3.6.	Wie neue Technologien helfen ein einzigartiges Kundenerlebnis zu erzeugen
3.7	Data Analytics: Was versprechen hybride Modelle?





STARKEN MINDSET UND SPASS DIE ZUKUNFT GESTALTEN







DAS DESIGN THINKING PLAYBOOK



"WER IST PETER ?"

VISUALISIERVNG DER PERSONA

Nutzerprofil von einem erfahrenen "Design Thinker" aus der Praxis:



" WER IST HEIDI?"

VISUALISIERVNG DER PERSONA

Nutzerprofil von einem erfahrenen "Design Thinker" aus dem universitären Umfeld:

FORSCHUNG IM BEREICH AGILE METHODEN

"RADICAL COLLABORATION

DISSERTATION

ROCKS "

NEVE ERKENNTNISSE UNO METHODEN FUR DESIGN THINKING

HEIDI, DESIGN THINKING & LEAN START- UP COACH

MA SOZIOLOGIE,

BABY ODER START-UPE

AVFBAU UND PFLESE 24 ANBEREN DESIGN THINKING EXPERTEN

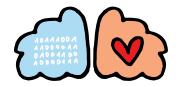
WEITERENTWICKLUNG VON METHODEN UND MINDSET

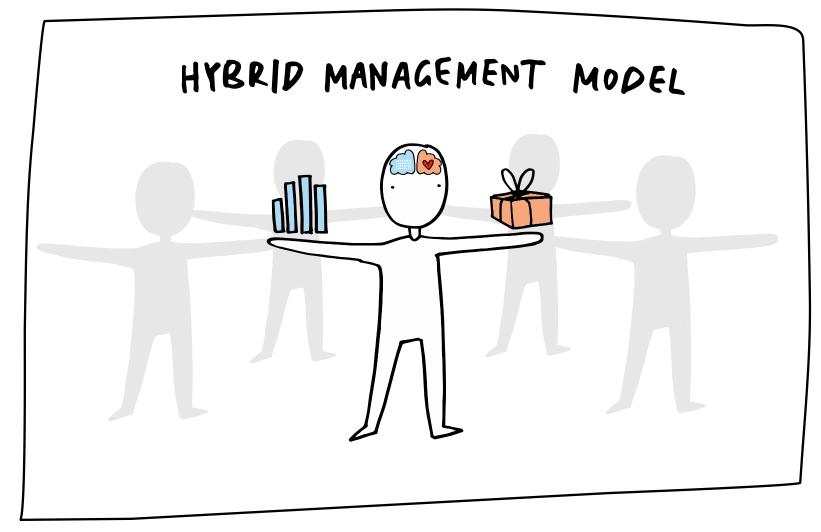
STUDIERENDEN TEAMS COACHEN

MEHR PRAMIS BEISPIELE IDEEN - INNOVATION

IST DESIGN THINKING EXPERTE M

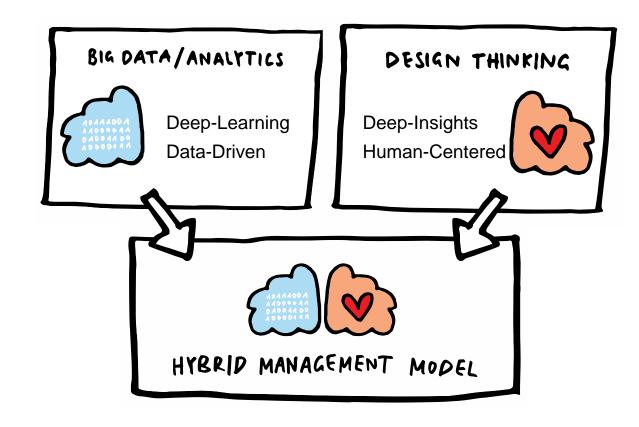














Motivation



Why should design thinking (DT) and data science (DS) be connected?

- Increase the efficiency and effectiveness of the innovation process
- Combine the deep customer insights (DT) and the deep learning from data (DS)
- Generating synergies by combining the rather qualitative aspects of Design Thinking and the quantitive methods of Data Science.



HOW WE MIGHT (RE) DESIGN THE SKI TRAFFIC ROVETING AND SIGN POSTING TO PREVENT SKIING ACCIDENTS ON HIGH RISK SLOPES ?





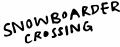






















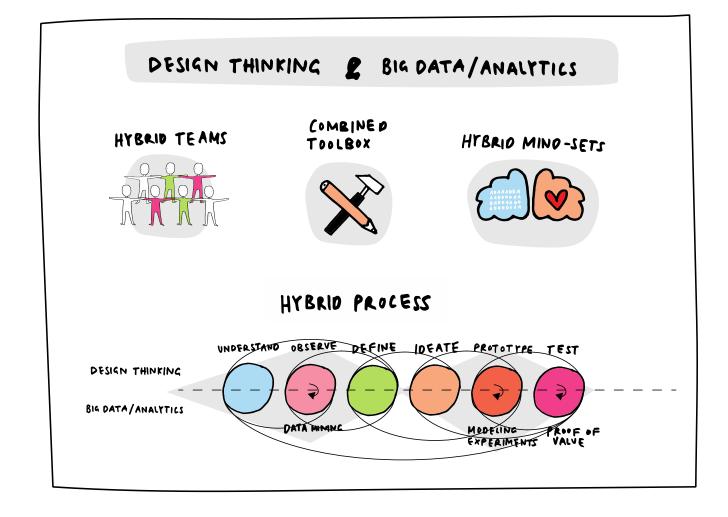
Group Work

- We split into groups
- Every group decides on one role as a group:
 - → «The Creative folks» Design Thinking
 - → «The Analytics folks» Data Scientiest
- Get into the shoes of design thinking experts or a data scientists. Walk, breath, think in your new role!
- Brainstorm how you would solve the problem statement.
 Discuss every process step and put your thoughts on post-its (10 min)
- Share your findings with us
- Discussion about limitations



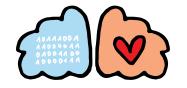


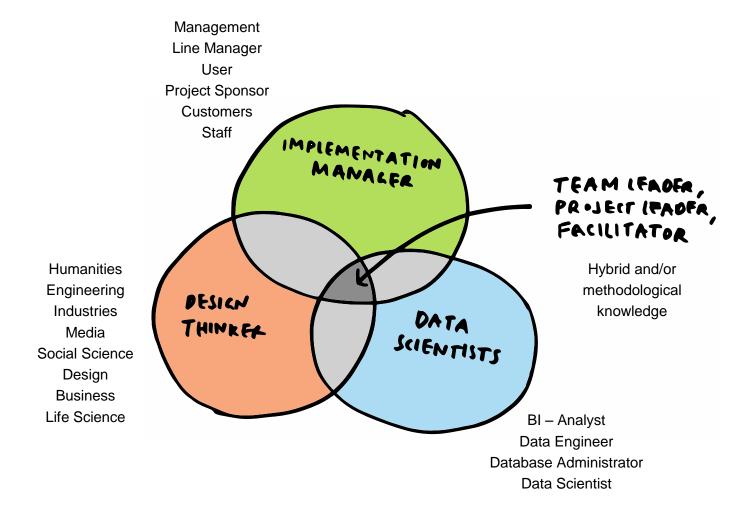
HYBRID MANAGEMENT MODEL





Hybrid Teams



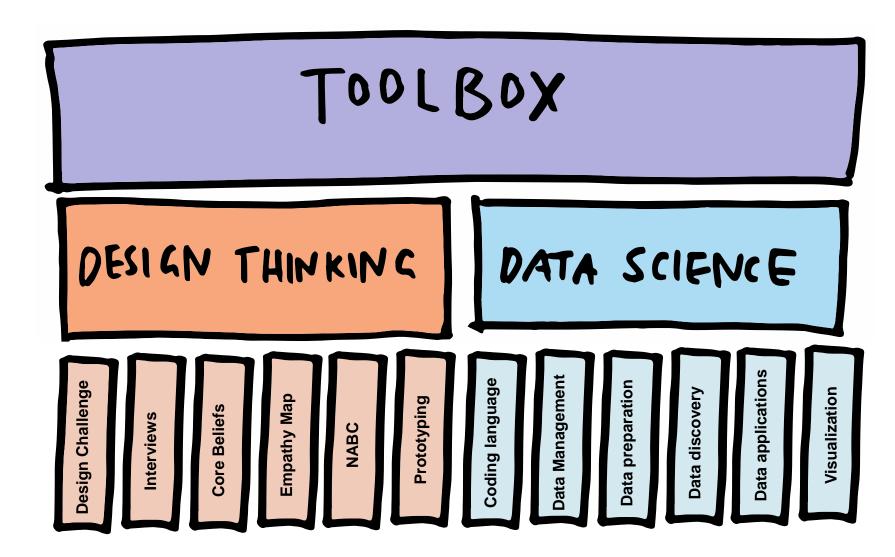






Combined toolbox







Hybrid mind-sets





Analytical & intuitive:

Combination of analytical and intuitive mind-set Denkweise to a holistic way of thinking



Be curious, innovative and establish clarity

Be interested in the unknown while looking for solutions. Establishing clarity through tackling problems in a creative way



Experiment & test:

Learning by testing, making prototypes. Thinking by doing and accepting to fail.



Visualization & Story Telling:

Visualize and make things come alive. Contextualize data and tell stories.



Human Insight & Data Insight:

Combination of **deep insights** through experience and **deep learning** through data. Combination of qualitative and quantitative methods



Collaboration:

Collaboration of multidisciplinary teams. Combination of design thinkers and data scientists. Merging knowledge and mutual inspiration.



Accepting vagueness and indicators:

Allow vagueness in order to research the goal. Approach problems in an optimistic way. Handling correlations and indicators.

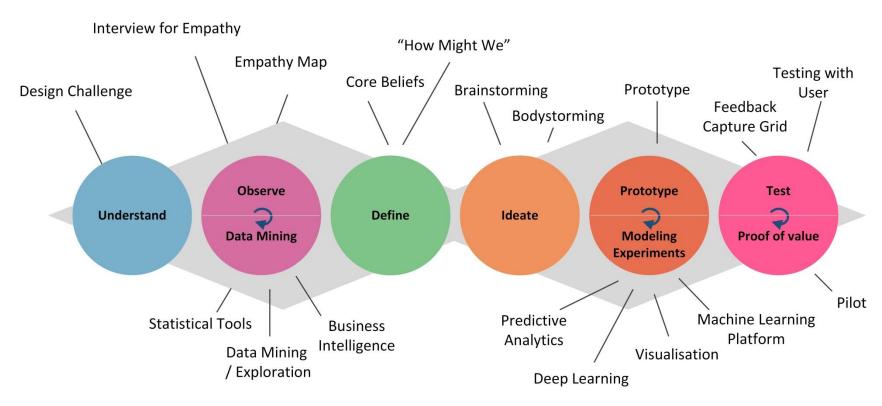




Methods & Tools along the process



DT-METHODS & DS-TOOLS



Programming Language, Data Sources Tools, Data Preperation Tools, Data Discovery Tools



How to implement the hybrid model?



PARADIGM SHIFT

Focus on the whole (Human + Data)

New Mind-set

New collocation of teams

New hybrid process

IMPLEMENT PRINCIPLES

Support of Top Management

Part of the change towards digitization
and/or data-driven company

MINIMIZED RISK FACTORS

- Innovation risk / Idea search field risk
- ♣ Culture risk
- ♣ Skills risk
- ♣ Model risk

MINIMIZED RISK FACTORS

- Implementation risk
- ♣ Strategy fit risk / Management risk



What kind of use case?



STAKEHOLDER

- Responsible implementation manager

- Management
- Project sponsor
- Business department
- Product manager
- User / Customer
- Team leader/Project leader/Facilitator
- Data Science Team
 - Business Intelligence Analyst
 - Database Administrator
 - Data Engineer
 - Data Scientist
- Design Thinker
 - Multidisciplinary Team

USE CASES

Where

- Digitization projects
- Data Science projects
- Design Thinking projects

What

- Developing new products, processes and services
- Generally solving problems

When

- When a data basis exists
- When high agility is required
- For whom?
 - Interface between customer requirements and customer data
 - For the whole organization



Value add of a hybrid management model



The collaboration of design thinkers and data scientists is leading to mutual inspiration

The combination of several data sources (qualitiative & quantitative) leads to

- a better understanding of the customer and his needs
- improved decision confidence
- validation and alignment of insights
- profound decision making and validation of assumptions
- management approval of solutions enhanced by quantifying intuitions
- contextualization of data in order to link data insights with stories
- a faster iterative problem-solving process, since data analytics tools and methods are used



Increase efficiency and effectiveness of the problem solving process to build a competitive advantage



Contact



Michael Lewrick Swisscom Enterprise Customers Pfingstweidstrasse 51 8005 Zürich michael.lewrick@swisscom.com +41 79 725 00 95

Patrick Link
Lucerne School of Engineering and Architecture
Technikumstrasse 21
CH 6048 Horw
patrick.link@hslu.ch
+41 79 571 34 89





