



Smart Service Cases

Collection of Cases Presented
at the Service Lunches of the Expert
Group Smart Services

data innovation alliance

Expert Group Smart Services



Our mission is to discover and apply best practice methodologies for designing data-intensive services that create personal and business value of data for users in their specific context. We differentiate between two application scenarios with strong methodological synergies between them:

1. Services for human individuals, typically consumers

- Gaining insights into jobs, hidden pains and gains related to a service
- Modelling the customer journey and developing appropriate value propositions
- Finding the appropriate equilibrium between the digital and the human side of data-driven services

2. Industrial smart services for business users, typically in production environments

- Applying the concept of servitization of manufacturing in specific production environments
- Leveraging the potentials of product-service transformation for increasing customer value and gaining competitive advantages
- Creating business service ecosystems

What do our Industrial Members get from this Expert Group?

- Getting to know best practice approaches for smart services from other companies
- Becoming familiar with innovative concepts for smart services from R&D
- Discovering the potential of data science to design advanced smart services.
- Sharing experiences with other companies
- Benefitting from networking opportunities with experts and like-minded companies
- Getting access to innovative R&D projects from the smart services science community
- Having the opportunity to participate in student projects

We bring these benefits to the members of the Expert Group using different formats such as co-creation in workshops, lunch-seminars, extended conferences and direct bilateral exchanges.

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<https://data-innovation.org/smart-services>

Foreword

This ebook encompasses a short description of the cases that were presented at the quarterly service lunches of the expert group “Smart Services” of the Swiss Alliance for Data-Intensive Services.

The successful series of service lunches started late 2017. The format comprises a smart service case presentation by a company during a brown bag lunch and is always accompanied by intense and deeply grounded expert discussions. At the start of this series, its sustainable form and success was not yet foreseeable. Overtime, the service lunches became an established format.

While the service lunch presentations were documented in a short blog on the web page of the Swiss Alliance for Data-Intensive Services, in 2019 the idea came to formalize the documentation of these contributions a bit more and to summarize them in an anthology in form of a living eBook, which is now available for download by this pdf.

It has to be mentioned that so far, we do not stick to harmonized format of the contributions. We want to give space to the individuality of the cases and the speakers, each putting the focus on specific aspects. It needs to be stated that the editor has no claim or responsibility for the content of the cases.

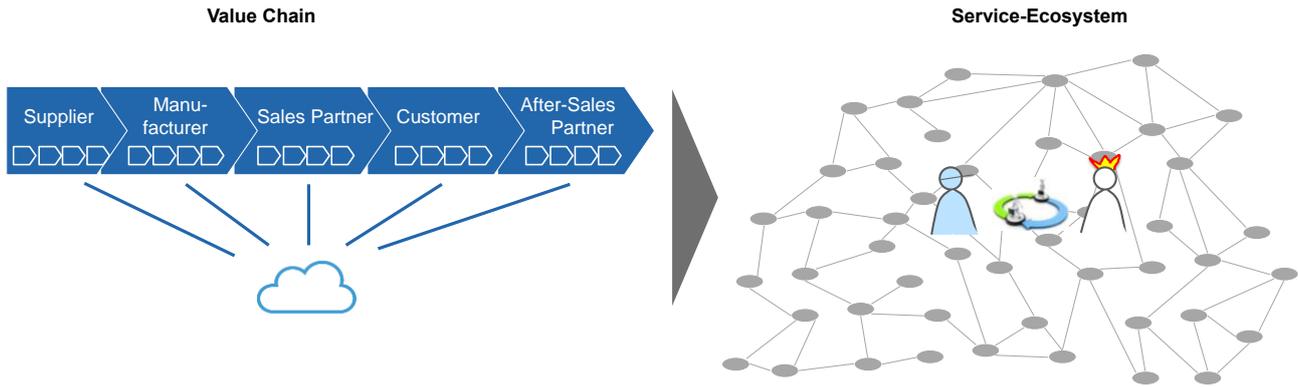
The Importance of Smart Services

Which tasks or challenges of customers or users can be improved by smart (data-driven) services and how can these services be implemented in practice?

With the spread of the Internet over the last few years, digitization has reached wide areas of society and the economy. Administrative processes are already largely digitalized and efficiently designed. However, the customer-centered development of services that solve relevant problems in the everyday life of users still has great potential. With the broad availability of sensors, data, networks and cloud infrastructures, a basis is now available for this change, which offers new and scalable possibilities.



The service benefits must be consistently oriented towards the users and customers and generate added value for their business processes.



Data-driven service engineering focuses on the design and description of the customer's service ecosystem. In which contexts and ecosystems does the customer have to accomplish his jobs? What are the problem points ("Pains") that a service can solve for the customer? So-called "value propositions" can be created for the customer. The processing and analysis of data helps both to identify suitable value propositions and to design their content.

Properly and carefully designed smart services thus have the potential to bring value to internal or external customers, to businesses, and to society as a whole.

Many thanks go to all the presenters and, in particular to Shaun West and Anne Herrmann for their continued support in the setup and operations of the expert group and the service lunches.

Jürg Meierhofer, Zurich, August 2021

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Transformation of the service business of Swiss industrial companies

Boris Ricken, AWK Group
March 28, 2022

COVID-19 has posed enormous challenges to Swiss industrial companies over the past two years. The service sector has been particularly hard hit, as it relies on personal interactions with customers. At the same time, digital technologies have changed the service business.

In his presentation, Boris Ricken shed light on the implications of these developments for Swiss industrial companies. He showed how longterm trends in service provision have been reinforced, e.g., by local service provision in combination with central products and services. Given this, different fields of action were elaborated, among others for new digital services and business models.

The presentation was accompanied by lively discussion and input from the participants. The expert group Smart Services is a very active platform for sharing and growing knowledge and expertise in this field.

Problem: What makes working with data so difficult?

1. Organizations maintain a variety of scattered data sources often locked in information silos.
2. Standard analytics software products might be powerful but are complicated to use for non-technical users.
3. Results from existing products are un-designed, un-responsive, and un-customizable.
4. Results from existing products can't be easily shared in their interactive and dynamic form.

Solution: How does visualize.admin.ch solve these problems?

- Access with confidence: Give users secure and regulated access to your data through our unified interface to search and browse the most up-to-date data sets independent of their original information silo.
- Visualize for efficacy: Empower users to visualize your data with compelling charts and maps in our intuitive visualization editor that comes with smart defaults and design best practices built-in.
- Share for impact: Boost the reach and engagement of your data with our flexible options to share and embed the visualizations with proper data source attribution and reliable reproducibility.

References:

- Find out more about the linked open government data platform at <https://visualize.admin.ch>
- Find out more about the underlying open source platform at <https://prisma.interactivethings.com>

Pollux - Digital Alpine Twin

Marco Zraggen, Geschäftsführer, Sisag AG, Daniel Pfiffner, Geschäftsführer, ProSim GmbH
Date of presentation (16.03.21)

Die Firmen Sisag AG, Remec AG und ProSim GmbH haben einen Bergbahnsimulator entwickelt, der es ermöglicht, Alpine Destinationen wie beispielsweise Skigebiete mit ihrer Infrastruktur in kurzer Zeit digital abzubilden und Entwicklungsmöglichkeiten zu testen und auszuwerten. Dabei geht es vor allem um Kapazität, Kosten des Betriebs und Verhalten der verschiedenen Gäste im Skigebiet.

Der Simulator hat dabei zwei Anwendungsgebiete. Einerseits ist dies die strategische Entwicklung der Bergbahngebiete. Dabei kann die Frage sein, was die ideale Dimensionierung eines zu ersetzenden Liftes ist und was die Auswirkungen der Dimensionierung auf das restliche Gebiet sind. Ebenso können neue Pistenführungen oder neue Anlagen und ihre Auswirkungen im Gebiet im Voraus getestet werden. Andererseits dient der Zwilling der operativen Entscheidungsunterstützung. Beispielsweise was passiert, wenn ich heute unter einer gewissen Anzahl Gäste eine weitere Piste öffne oder einen Lift schliesse, oder wie viele Kassen muss ich öffnen, damit die Wartezeit an der Talstation nicht zu gross wird.

1. What was the Challenge?

Es gab mehrere anspruchsvolle Entwicklungsschritte. Einerseits war es sicher die Zieldefinition des Projektes. Was sind die Fragestellungen, welche die Bergbahngebiete wirklich beschäftigen. Am Anfang wurde vor allem in Richtung Kapazitätsplanung entwickelt. Im Laufe des Projektes hat man festgestellt, dass die Kostenberechnungen ein ebenso wichtiger Teil für den Nutzen der Software ist.

Ein weiterer anspruchsvoller Schritt war, das Personenverhalten von verschiedenen Personengruppen im Gebiet abzubilden. Diese konnten durch agentenbasierte Simulation gut und generisch abgebildet werden.

2. By which Service-oriented Approach did we Solve it?

Der digitale Zwilling wird für jede Alpine Destination individuell gebaut und parametrisiert. Durch die vorgängige Entwicklung einer Bibliothek für Alpine Destinationen kann dies in kürzester Zeit realisiert werden. Die Software wird dem Betreiber anschliessend auf einer Plattform zur Verfügung gestellt.

3. What are our learnings?

Dies ist eine Umsetzung eines Digitalen Zwillings. Es wurde von der Zieldefinierung, über die Umsetzung, bis hin zu den Weiterentwicklungsmöglichkeiten und nächsten Schritten berichtet.

The Kistler Innovation Lab as a powerful Digitization Booster

Dr. Nikola Pascher, Head of Kistler Innovation Lab
04.02.2021

Kistler is the global leader for providing modular solutions in dynamic measurement technology for pressure, force, torque and acceleration measurements. The company looks back on a continuously growing business, selling hardware and system solutions in various markets. Headquartered in Winterthur, Switzerland, and with various locations worldwide, Kistler's next step is a digital transformation to maintain steady growth within the digital age. This involves the creation of the Kistler Innovation Lab as a powerful digitization booster.

The Innovation Lab follows the general vision "Turning data into value". This means, that we build on the vast amounts of data created with Kistler's sensor technology and create value by using digital methods, rooted in data science, mathematics and signal processing. Digital initiatives are pursued in a protected framework at a higher speed than possible in the general corporate context. To accomplish this, the Innovation Lab stands on three pillars: With the **co-creation platform**, we connect different fields of expertise, share knowledge and data and provide digital know-how. The **digital technology incubator** is a professional framework for quick experiments and ideas with the ultimate goal to pursue proof of concept projects for digital services and solutions based on Kistler sensor data. With the **digital training center**, we want to empower the Kistler team and our partners to identify digital business opportunities.

In the first part of this talk, we report on the general digital transformation mechanism at Kistler with a focus on the ramp-up of the Innovation Lab within the corporate context. Despite the challenges, which are imposed by the Covid-19 pandemic, the Innovation Lab turned out to be a powerful tool, delivering first proof of Kistler's data-based capabilities and strengthening the credibility towards our team, customers and partners.

In the second part of the talk, we focus on technical aspects of data-based services and solutions. All initiatives build on a powerful and scalable technology stack, which allows the quick set-up and deployment of cloud-based APIs. We report on first projects within the co-creation platform and the digital technology incubator. These projects aim at the fast creation of data-based services and solutions. In a co-creation project with our in-house sensor production, we aimed at optimizing a metal machining process inside a turning lathe. Together with the Kistler-internal machine shop, we made an important step towards a predictive maintenance and quality forecasting service. In a second project, we analyzed data from our weigh in motion (WIM) systems and realized, that roughly 30% of all trucks are driving empty. With the help of a machine learning model, we can forecast the flows of empty and full trucks with high accuracy.

Transformation Journey to Smart Products

Fabian Olivier, consultant, KWe Consulting GmbH
22.09.2020

1. What was the Challenge?

The challenge: market prices are going down as a result of product commoditization and a lack of differentiation.

How to gain market share and grow revenues in a highly competitive and saturated market?

The solution: create differentiation and a sustainable competitive advantage through technology innovation.

How to use IOT as a key differentiator? Illustration of the “Transformation Journey to Smart Products” with a real case study

The real case study illustrates the following:

- ⇒ Which data to collect?
- ⇒ Who is responsible for data management?
- ⇒ How to be compliant to the data privacy regulations?
- ⇒ Who to partner with?
- ⇒ How to translate data into information: the role of a dashboard?
- ⇒ What is the business case?
- ⇒ What is the best approach to build a business case?
- ⇒ A new revenue opportunity: pay per use?
- ⇒ How to move from a product to a knowledge organization?
- ⇒ How to build a digital DNA?

2. By which Service-oriented Approach did we Solve it?

The real case study explains how the IOT value proposition has evolved over time along the transformation journey to become a key Value-Added Service to improve profitability (internal transparency), customer satisfaction (external transparency) and cross-selling.

3. What are our learnings?

- Digital Transformation is a journey that requires exploring the digital opportunity on a trial and error basis with a good dose of faith and perseverance.
- Digital Transformation is Change Management.

IoT for the Real World

Matthew Anderson, Data Analytics & Smart Technologies Manager, Sulzer Ag
Date of presentation (10.06.2020)

1. What was the challenge?

Sulzer's industrial customers require insights into the behavior of their assets to proactively plan maintenance across their production facilities (commonly referred to as 'condition monitoring'). This is achieved by measuring and trending operational parameters such as bearing unit temperature and vibration that give an indication of the asset's condition. Until recently, automation of such measurements — via PLC, SCADA implementations — and their subsequent analysis have proven cost prohibitive. For this reason, only the most critical applications have been monitored and less critical equipment are measured manually still today.

This has several disadvantages, namely

1. Manual measurements are taken infrequently. In the worst case, problems are not identified early enough, and this may cause unwished downtime of the process in question.
2. Not all equipment is running 24/7. In such cases scheduling of manual measurement itself is a challenge, and single measurement may give the wrong picture of the condition of the equipment.
3. Safety aspects need to be considered. The personnel may need to access installation areas that include a safety risk.

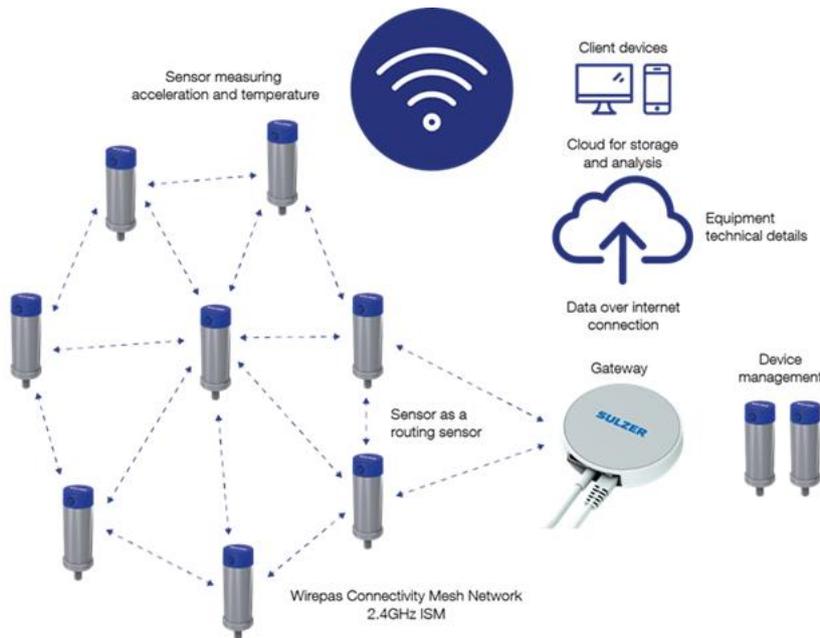
With a manual approach, at best the end user gathers snapshots of their assets' behavior. Worst case, these manually taken measurements are recorded ad-hoc into documents or paper, and not entered into a system that allows deeper analysis of operating trends. An important opportunity to see underlying patterns and predict pending asset issues is lost.

2. By which service-oriented approach did we solve it?

Driven by key enablers of Industry 4.0 transformation, namely the advent of ubiquitous and cheaper sensor technology, coupled with advancement in telecoms and cloud computing, enormous opportunities arise to generate useful operational data from these assets in a cost-effective manner. By leveraging IoT devices instead of traditional automated monitoring approaches that require a high level of financial investment, we are driving a democratization of condition monitoring. As digital sensors become cheaper and more equipment is connected to the Internet (Internet of Things, IoT), there is an ongoing potential to convert data from the devices into actionable business insights. This can be translated into optimized predictive maintenance and maximized uptime of the process in question.

Today, the technology involved is becoming more affordable. It is easy and cost-efficient to deploy for new equipment or to retrofit in existing installations. This is particularly attractive in general industry, such as pulp and paper mills as well as the sugar, food, and fertilizer industries, where configured pumps have traditionally not been equipped with such options.

Sulzer, in collaboration with Finnish technology leaders, have designed a wireless IoT condition monitoring solution, Sulzer Sense, that targets these users' needs.



The solution includes wireless sensors that can be attached to a pump, agitator, motor or any rotating equipment. The sensors measure temperature and vibration and send the data to the cloud. This means that the operating status of the equipment can be remotely monitored 24 hours a day, seven days a week through Sulzer’s online service. No onerous manual measurement is needed. Sulzer’s online service is a cloud-based platform. It is easy to use and offers various value-adding services. The customers have secure access to the latest equipment data and related services, as well as technical product documentation and drawings.

With the service, you can track the condition of your product, view the equipment trend data, identify spare parts, check spare parts availability, place an order or view your order status. Sulzer’s online service helps our customers to increase productivity, efficiency and cost savings by automating the data driven insight processes.

3. What are our learnings?

Because the product is highly innovative, the team learned much throughout the R&D process, the industrialization of the product, and the ongoing operational model.

Key learnings were mainly on the management of the project, which required numerous skillsets from across the company, as well as co-ordination and communication across multiple vendors to allow for ongoing improvements to design.

Vital to the success of this project was the stewardship from within the business to identify and leverage these different skills, while at the same time gaining insight from key customers with the features that add value for their business efforts.

M. Anderson, Data Analytics & Smart Technologies Manager, Sulzer
S. Saarenvalta, Development Manager, Sulzer Pumps

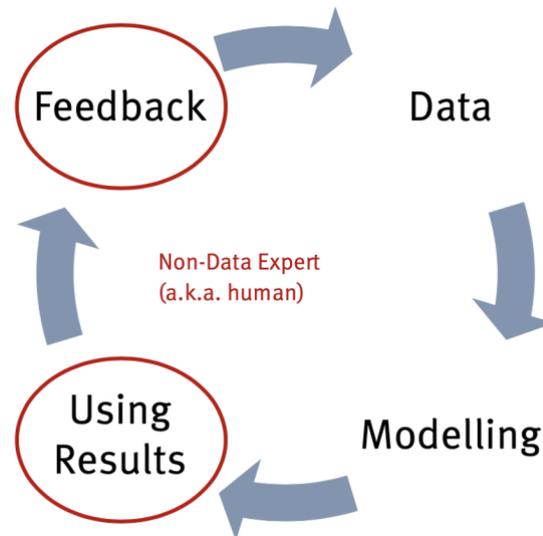
The Human Factor: Making the Most of AI Results

Kevin Smith, Head of Analytics & AI at Contovista AG
November 13, 2019



Context

When it comes to machine learning and AI, the main focus is very often on algorithms, data, and infrastructure. Anyone who has ever brought such a model into production at a larger company knows, however, that for many applications there is another decisive factor which often has a larger impact on the final result than the selection of the ML-model or the hyperparameter tuning in order to optimize the 4th decimal place. And these are the employees who (should) use the results of the model in their daily business.



In the above cycle two steps often involve non-data experts. The best model does not deliver any value if the results are used incorrectly.

At Contovista we have gathered experience in situations where AI results are used by non-data experts. In our cases this is usually the client advisor at a bank. Our machine learning models identify possible leads for banking products and pass these on to the client advisor. By doing so we are able to increase the conversation rates compared to traditional approaches by up to 23x.

The remaining content often uses this scenario as an example, however the lessons learned are more general than that.

Challenges

Various scenarios we encounter:

Client advisor...

- does not use the AI results
- uses them, but struggles with them (compared to own leads)
- uses only subset of leads (usually wrong subset ;)
- does not record any feedback (truthfully)
- uses them perfectly and likes it

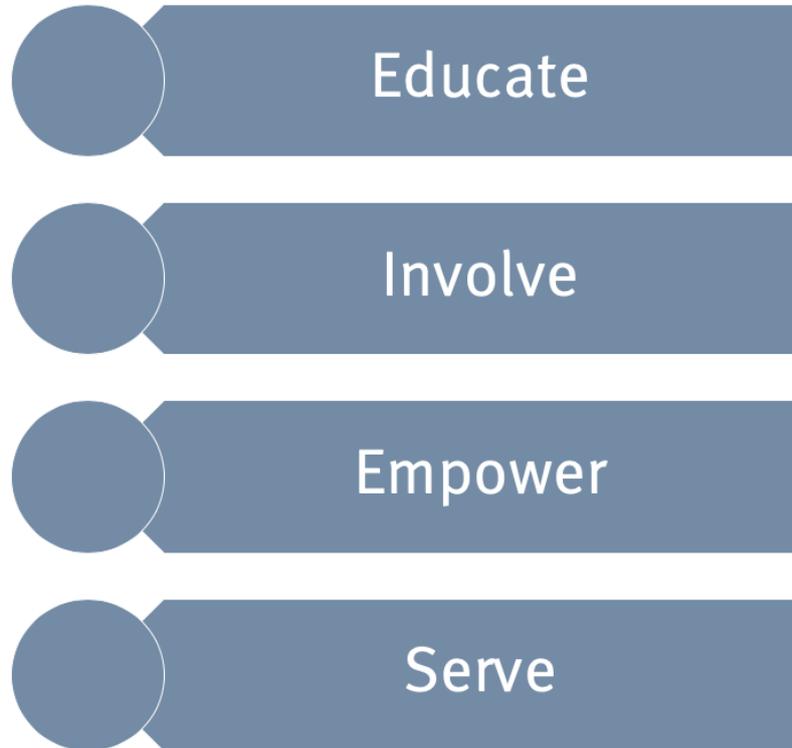
Some reasons we have uncovered for above scenarios

Client advisor...

- feels like or is afraid of being replaced by a machine
- does not trust results
 - believes the problem is too complex for a machine to handle
 - has made negative experiences in the past
 - has found some bad leads which make no sense whatsoever
- does not want to trust the results
 - 27 year old kid telling him what to do
 - change is hard not trusting is the easiest way out
- does not know how to interpret or use the results correctly
 - what to do with churn prediction?

- how to engage with client without model explanations?
- does not know how valuable feedback is

Solutions



I propose a four step approach in which one educates, involves, empowers and serves the non-data experts.

Educate

- What can AI (today) do and not do?
 - Shows how AI will help them make them more efficient, not replace them
- How does AI work (high-level)?
 - Shows them when they can trust AI and when not
 - Shows them why explanations are not always as easy
 - Helps them build trust
- AI common sense != human common sense
 - You don't expect airplanes to fly like birds either
 - Shows them how they are still needed and how machine + human is the best solution
 - Eliminates the trust issue arising from unfortunate "edge-cases"
- What is required for it to succeed?
 - Crap in crap out high quality feedback leads to better leads for them
- Use the hype!
 - It's now easier than ever to get people excited about the topic
 - A lot of material available: MOOCs, Blogs, Podcasts, MeetUps etc.

Involve

- Client advisors are subject matter experts
 - Great feature ideas
 - (However, often suboptimal exclusion criteria suggestions)
 - Meaning of the various data variables
 - True process (compared to theoretical process)
 - Understand products & clients best
 - (However, often not good at estimating probabilities, thresholds etc.)
- Involve them from the get-go
 - They will raise questions early on (“what to do with churn leads?”)
- Get detailed feedback during campaign feedback loop
- Helps in showing them their importance & educates them
- Suggestion
 - 3x 30min interviews with different client advisors
 - One client advisor who is part of the entire project

Empower

- Client advisors are subject matter experts
 - A lot of experience
 - Understand clients best
 - If they say a lead is bad, it usually is!
- Allow client advisors to reject leads
 - Compare to a Google search
 - If reject add explanation (learn in next iteration)
 - Forcing them to contact a bad lead is not a good idea
 - Difficult trade-off btw. “trying sth. new” and “taking their advice”
- Human + Machine > Machine
 - Covers “edge cases”
- Shows client advisor he will not be replaced

Serve

- Data Science Team should serve client advisors
- Ask: “how can we make your job easier/more efficient/more productive”
- “Model explanations” vs. “sales arguments”
 - Client advisors want causation, not correlation
 - Model Explanations give us correlation
 - Give them sales arguments instead!
 - Sales arguments can be independent of model
- Prepare data & analyses which make their process more efficient
 - Can reduce preparation time significantly!
 - Get them on your side by solving their pain points!
- Simple feedback process
 - Dropdown list

- Freetext field (very important!)

Proof by catchiness & abbreviation

If you rearrange the order of the steps to:

1. **I**nvolve
2. **S**erve
3. **E**ducate
4. **E**mpower

Then the first letters result in:

I SEE

...so it has to be true! ;-)

Solutions - How can management help?

- Start educating all employees (AI is the new electricity)
- Adapt processes
 - Feedback loops (Build measure learn ...)
 - Smaller experiments & quicker iterations
- Adapt culture
 - Challenge own/old intuitions with data
 - Willingness to experiment flexibly (e.g. client advisors helping out in call centre)
- If you get processes & culture right, then your data science team or external AI partner can succeed!
- It's ok (and often recommended) to bring in strong partners for AI. (scarce talent & needing to move quickly).

But there's no way of outsourcing processes & culture!



How IoT is Changing the Electrolux Service

Paolo Mauri, Electrolux
September 12, 2019

The author of this post, Paolo Mauri, was invited as a speaker at the recently held "Smart Services" Expert Group event. Following are his findings which he shared during his talk.

1. What was the Challenge?

In today's globalized world, customers expect optimum performance and optimum service, wherever they are and around the clock (24/7). A number of players stretch their operations across countries and continents, and expect to find the same service level wherever they are. It is particularly challenging to meet the request on a globally distributed installed base that comprises a wide variety of products and several product generations in three different product lines (food, beverage, and laundry). Additionally, the service must scale in a cost-efficient manner. This creates the challenge of either generating additional revenue by services or creating a highly automated service that scales at very low incremental costs.

2. By which Service-oriented Approach did we Solve it?

Electrolux Professional decided to bundle the services in the concept "Essentia", the service product. This allows to offer the same, systematic approach to the service offering across markets, distribution channels and products, thus transitioning the company from being product-oriented to solution-oriented instead. Recent acquisitions allow in the meantime to explore the "pay-per-X" market.

IoT plays a pivotal role in this transformation, as connecting the installed base (which was already connectable to a large extent) to the dedicated service cloud enhances the services that can be offered flexibly to a variety of actors, from internal technicians to external users. Various channels and user interfaces are possible (e.g., apps, call center etc.). The services apply to technical support (e.g., remote condition monitoring and support) and also to support the customer in the optimization of their operations (usage, energy and detergent usage, etc.). We decided to co-create the function with the customers, keeping of course an eye on the scalability of the solutions brought to market.

3. What are our learnings?

For what IoT solutions are concerned, we understood at a very early stage that customers need to be somehow guided in the process of finding out what their real needs are, and that customization has to be performed so that it remains scalable.

There is still a difficulty in finding the right price positioning of the connected services, especially when offering through indirect sales or service partners. The hospitality industry is moving rather slowly if compared with other ones, thus not offering an easy benchmarking.

Service networks have different level of digital maturity, so we need to make sure they grow their capabilities in order to ripe the most from connected machines. We decided to co-create the tools for them, rather than go for a top-down approach from central.

This will also help the service provider to change their business model from a merely reactive, to a proactive one.

Es hat noch Platz!

Roger Krähenbühl, SBB, Fabian Fluri, Zühlke
June 11, 2019

Some 20 guests attended last week's Service Lunch of the expert group "Smart Services" to find out how the SBB utilizes data and information to guide passenger behavior and improve the customer experience during the train journey.

As part of the SBB's initiative to promote clever commuting, Roger Krähenbühl presented a challenge the SBB is facing: Passengers tend to occupy certain carriages, leaving other carriages, especially at the front and the end of the train, underused. This uneven distribution of passengers across the length of the train reduces the customer experience because the passengers in the middle carriages experience the trains as (too) crowded.

The second speaker, Fabian Fluri, project manager, presented the SBB project "Clever commuting" which aims at addressing this challenge. For this purpose, the SBB developed and tested a model predicting the number of passengers per carriage. The idea: By providing this specific information to customers via the SBB mobile app, passengers are motivated to move to less busy carriages. A lively and interesting discussion started when Fabian Fluri asked the audience to share their ideas on the factors influencing the number of passengers on the train as well as in specific carriages. And in a later discussion, the audience was invited to share their thoughts on how to measure the number of passengers in each carriage. Fabian Fluri then presented the final model. The project is now implemented: passengers using the SBB mobile app can not only see a prediction on how busy a train is in general but also how busy each carriage is.

The discussion after the presentation was equally lively: Participants discussed the impact of the project on customer experience as well as the challenges the SBB is facing due to restrictions in data collection, storage and usage.

Overall, this Service Lunch presented a showcase on how data can be used to improve the quality and customer experience of a mobility service.

Innovating Healthcare through Mobile Data and Predictive Analytics

Matthias Hohler, Swisscom, Alex Geiger, Zimmer
January 16, 2019



Last week's Brown Bag Lunch was dedicated to databased services in healthcare. Two industry experts from medical technology and health IT presented innovative applications for databased services.

In front of some 30 guests, Matthias Mohler, Head of Analytics Consulting of Swisscom, presented Swisscom's data-analytics approach. The case of an anonymized psychiatric clinic showed that one of the key hurdles of data-analysis remains the quality and standardization of data. A first step to any data-analysis project is thus to identify the most critical variables and define standard coding.

Our second speaker was Alex Geiger, Senior Specialist for Connected Health at Zimmer, the global market leader in hip and knee replacement. Mr. Geiger illustrated a very different 'smart-service' application: Using Apple Watches as a communication and motivation tool for patients undergoing hip or knee replacement surgery. The focus of this large-scale clinical study is to improve the patient – physician communication during the entire therapy process from a couple of weeks prior to the surgery to post-surgical rehabilitation.

A stimulating discussion after the presentations highlighted well that despite technical and data quality aspects, data protection details and trust towards the data-collecting institution are of particularly high importance in healthcare.

Towards a Data Driven Company

François Rüf, Vontobel
October 24, 2018



The data driven company is a combination of mindset, skills, infrastructure and the capability to rapidly adapt business models. In his fascinating presentation, François Rüf, head of data and machine learning at Vontobel, presented how they are approaching these challenges.

The presentation made it clear that a broad range of methods is required for successful implementation. In particular, next to technological approaches like cloud, automation, IoT etc., creating services that are convenient and relevant from the perspective of the users as well as the development of ecosystems are essential. Moreover, the development of data-driven services cannot be tackled the same way as normal IT projects.

The highly interesting and interactive presentation was surrounded by lively discussions, which led to new inspirations and ideas and strengthened the network of the Expert Group members.

Following the presentation, the core team members of the expert group Smart Services got together to co-create ideas for further common activities. A cool list of workshops, events, or projects was the outcome. We look forward to see a firework of activities in 2019.

Digital Twin – Challenges & Concepts

Christopher Ganz, ABB
June 27, 2018



Digital twin is a buzzword that is broadly used in the context of digitalization. Not everything that is mentioned is feasible, and not everything that creates value is mentioned in the context of digital twin. In his talk, Christopher Ganz presented a concept that is currently being pursued by ABB. With the concept of a digital twin as a digital reflection of a physical asset, it became evident that the field of applications is wide and rich. The digital twin can be applied along the product life-cycle from product design to manufacturing, commissioning, operations, and maintenance. The real challenge lies in integrating information about the context and the environment of the physical asset, i.e., about its application. Different use cases may require different levels of accuracy and different data sets with openness and interoperability being key. The presentation was accompanied by lively discussions with the numerous audience and was rounded off by networking among the participants.

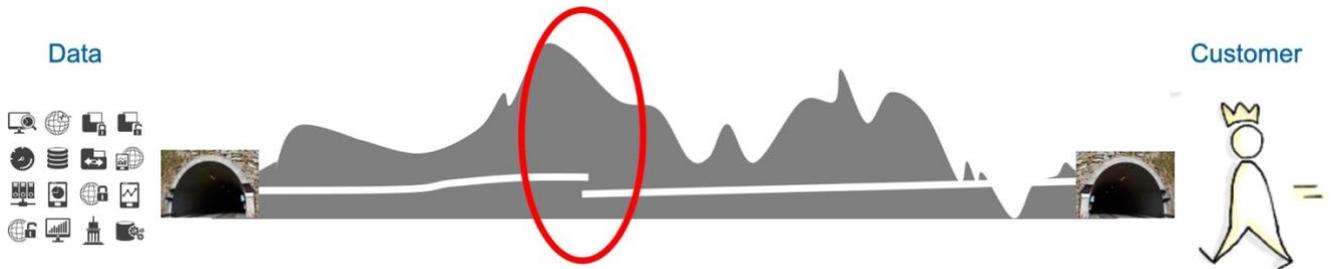
Thanks a lot to Christopher Ganz for sharing his ideas with the expert group „smart services“.

Geschäftsmodellierung auf der Basis serviceorientierter Value Propositions

Adrienne Schäfer, HSLU, Falko Eichen, Bruhn + Partner
April 10, 2018



The successful format of service lunches organized by the expert group "Smart services" was continued by the presentation about the topic "Servicetransformation realisieren mit Hilfe einer praxisorientierten Toolbox" (presentation in German). Adrienne Schäfer and Falko Eichen provided interesting insights in the relevance of service transformation in various industries. Many companies are trying to shift their business models towards servitization. However, this transformation is difficult if the core of the value proposition remains product-oriented. The presentation showed a toolbox to companies realize the product-service transformation step-by-step.



Creating Value by Applying Data and Analytics to Solve Relevant Problems