Arthur D Little

Executive Event

Data driven business models

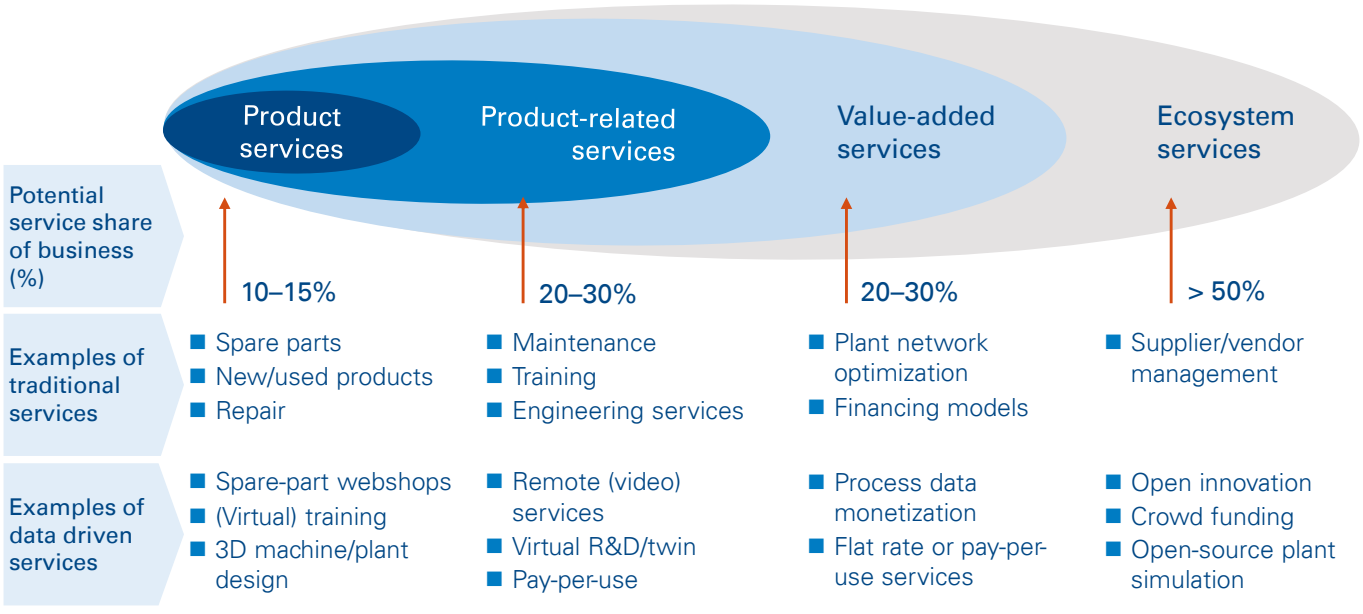
The next Gold-rush?

On September 22, 2017, Arthur D. Little hosted its annual executive conference in Munich, welcoming more than 50 senior executives from different industries in Europe, the Middle East, Asia-Pacific, and the US. This year's major theme was "Data Driven Business Models – The next Gold-rush?" Insightful presentations and lively discussions allowed all participants to gain valuable perspectives on and ideas about the development of promising business models fueled by data. The event concluded at the Munich Oktoberfest, where many guests networked in a relaxing atmosphere.

Data driven business models

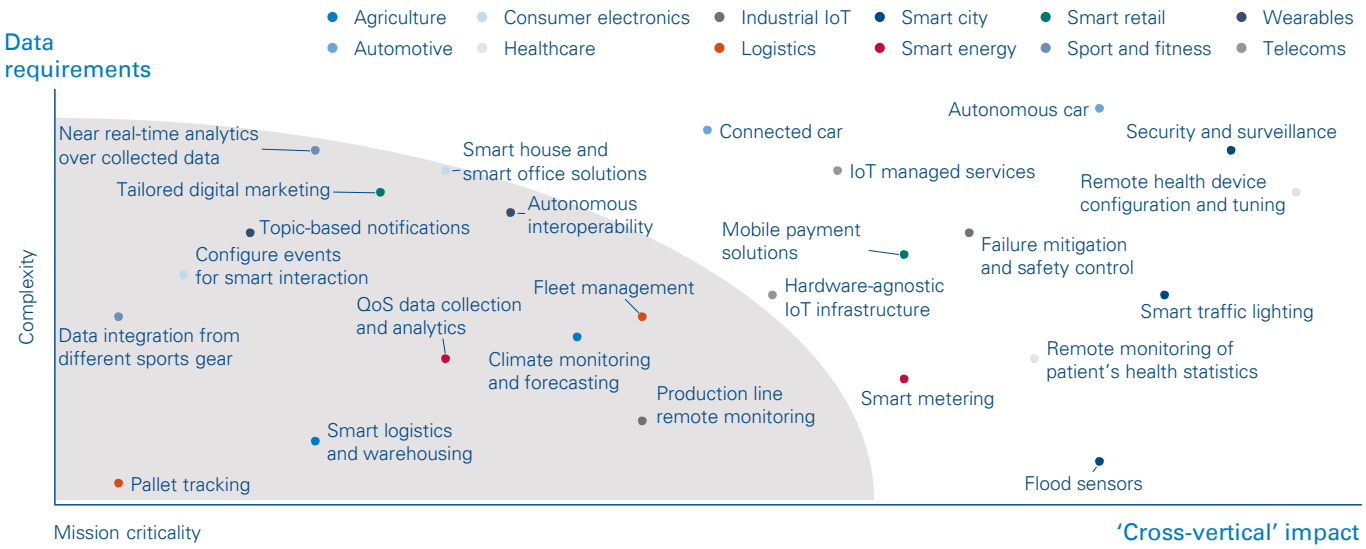
The digital landscape is evolving significantly. The internet of everything and everyone is leading to an exponential rise in the amount of data. By 2021 it is expected that over 30 billion devices will be connected, which includes person-to-person (P2P), machine-to-person (M2P) and machine-to-machine (M2M) communication.

Figure: Data driven business models - value add, (example industrial goods)



Source: Arthur D. Little

Figure: Data driven business models - data criticality



Source: Arthur D. Little

Data driven business models (DDBMs) combine known product services, digital services and ecosystem services. These services have an increasing share of business – over 50 percent for ecosystem services. Examples of those to enhance traditional services include remote services via video or a virtual twin with significant value added through extensive data collection. A virtual twin can be used for further optimizations or for cost reduction in R&D. New ecosystem services include open-source products, such as plant simulation software, which is also an enabler of open innovation.

There are countless use cases to collect and use data, such as in autonomous cars, flood sensors and smart metering. This data needs to be evaluated and analyzed according to its criticality in a real-live environment and its complexity. Flood sensors have to work reliably and respond in real time, which is also true of autonomous cars, but the levels of complexity of data collection, processing and analysis are different. Furthermore, data driven business models also have to be assessed regarding their ownership, data collection and liability.

Evolution of the digital ecosystem – how to shape the future?

"The rate of technological change has taken over the rate at which humans can adapt" claimed Daniel Oliver Augsten from Facebook.

In 2020 more people will have mobile devices than have running water or electricity at home. Seventy-five percent of all mobile data will be video. Eighty-five percent of customer interaction will be handled without a human. These examples show the rapid evolution of the digital ecosystem.

Thus, beside it's well-known business Facebook will focus on three key areas over the next 10 years: connectivity, artificial intelligence (AI) and virtual/augmented reality (VR/AR). Connectivity aims at providing internet for the half of the world's population, which is currently not connected. Interesting use cases for AI include, e.g., assisting the blind and visually impaired community with text description of photos using object recognition technology. A key area of innovation is centered around AR/VR applications, such as a new VR app through which you can hang out with friends in a fun, interactive virtual environment as if you were in the same room.

"We do not yet know how AR/VR will change the mobile ad business," continued Augsten. "We have several bets." According to him, the key is to provide value for people and value for business. A promising business case will follow automatically.

Best practice data driven use cases

"The next-best solution is just one click away," Sven Heistermann from Google explained; thus, it is a key priority and eternal challenge for Google engineers to provide highly attractive services to users.

At Google, huge amounts of data are being processed that stem from many different sources. For example, twenty percent of searches are now done by voice. Google explores various machine learning opportunities to make its products better, such

as improving email spam filters, translating text, recognizing photo contents, ranking on Google searches and many more.

Google handles privacy and security with utmost importance, as the trust of its customers is essential, continued Heistermann. As a consequence and as German data protection law is considered one of the strictest in the world, many of Google's privacy and security solutions are being developed in the Munich office.

Shaping industrial digitalization

Gerhard Fohringer from Siemens presented various use cases that Siemens applies and is exploring to enable customers to achieve the next level of productivity, time to market or efficiency. These use cases are based on various technologies and tools, such as data analytics, AI and simulation. A prominent use case is the digital twin of the Mars Rover Curiosity. Siemens also increasingly sells value-added services with its products. For example, it used analytics of sensor data of critical components for predictive maintenance to ensure close to 100 percent availability of high-speed trains in Spain. This data driven business model became a great success, with on-time rates of about 99.9 percent, and approximately 60 percent of passengers switched from air travel to the train.

"There is no major cannibalization" by new data driven business models of our traditional business, Gerhard Fohringer said in answer to a question raised. "The key challenge is to change the way of thinking and convince the customer to go away from repairing – but to replace parts before they break down."

"My data is more valuable together with your data"

Karim Taga of Arthur D. Little opened the panel with the first question: "How do you select areas to invest?" Rather than focusing early on business models, Heistermann pointed out Google's very different way of thinking: "Think about the user, and everything else will follow." Sebastian Zimmermann from BMW Group added, "It is always about the customer value – for example that he has the choice to be informed about local hazards and traffic conditions based on data exchange through a trustful and secured information backend."

Siemens, Google and many more pointed out that sharing data tremendously increased their value: "…in industrial space, sharing makes the data more valuable … my data is more valuable together with your data," as Axel Hansmann from Gemalto phrased it. Thus, Taga raised the question of how to further deepen collaborations to explore these opportunities. "Be much more open and proactive to share," Heistermann responded.

Hacking data driven business models

Andreas Gall, Chief Innovation Officer at Red Bull Media House, explained the heavy changes in the media industry, which is in the middle of a paradigm change. "The traditional value chain is turned, and the new data-driven model is a really complex beast," he said. New formats are needed in the media business to address and immerse all generations, especially the youngest. Therefore, innovative players such as Red Bull Media House produce and distribute media content in a completely new way and include real-time data to add significant value. A newly developed suit with sensors and cameras tracks the emotions of athletes, such as fear and adrenalin. The recorded emotions are visualized in a similar way to an overhead display, and consumers are drawn closer to the athlete than ever before. Professional athletes can use this technology during their training, or clock manufacturers could visualize detailed information in a way similar to a second screen – opening up data driven business opportunities in completely new areas.

How to address DDBMs from a telco's perspective

Alexander Lange presented how Telefonica was taking the next opportunity in data driven business models – establishing Telefonica NEXT, which uses data and connectivity to better understand customers and address them effectively, make products smarter, and optimize business processes.

Therefore, NEXT has created a data anonymization platform that works with existing data, analyzing, evaluating and creating new business opportunities in, e.g., traffic management or stationary retail. Transport analytics helps to understand patterns of moving people and enables companies to plan capacities and improve timetables – and even optimize outdoor advertising through location planning and changing ads during the day. Stationary retail can be supported by better understanding the customer's behavior in the store and addressing them around the POS effectively.

Panel discussion

Ansgar Schlautmann, Associate Director at Arthur D. Little, initiated the afternoon panel with the question of whether data should be considered the gold of the future. Massimo Cavazzini from Oracle challenged this interpretation with his hypothesis that to remain in the business, you need to have the capability to work with data, which implies that industries have to collaborate in an increasingly converging world. Stephan Klink from Vodafone took up the ball and emphasized that telcos need to evolve from pure connectivity providers and walk up the value chain by offering end-to-end solutions to their customers or specific IoT service elements i.e. pre-processing of sensor data, data brokerage or standardized data analytic capabilities.

In addition, David O'Hara from Cisco pointed out the need to adopt existing business models by combining hardware and software to manage and support enterprises in controlling their data. Christof Hellmis from Here stated that it's not about selling data, but about licensing the usage of data. Furthermore, with data coming from various and partly conflicting sources in the future, the challenge will be to make data compatible in order for companies to be able to work with it.

Questions from the audience covered security of data in transmission, where we currently lack end-to-end solutions. These are business models in themselves. In addition, legislation will play a major role in giving a clear framework to industries, and thus be a key enabler in moving to the next step. Last, but not least, integrating customer acceptance into the business model is key to success.

Oktoberfest

Traditionally, this event is closed with a visit to the Bavarian Oktoberfest at the invitation of Arthur D. Little. A large number of participants joined the gathering, and used the casual atmosphere to network and exchange ideas across industries.

We look forward to meeting you again at our next IoT event in Munich, planned for September 28, 2018.

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Arthur D. Little

Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities. We enable our clients to build innovation capabilities and transform their organizations.

Our consultants have strong practical industry experience combined with excellent knowledge of key trends and dynamics. Arthur D. Little is present in the most important business centers around the world. We are proud to serve most of the Fortune 1000 companies, in addition to other leading firms and public sector organizations.

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