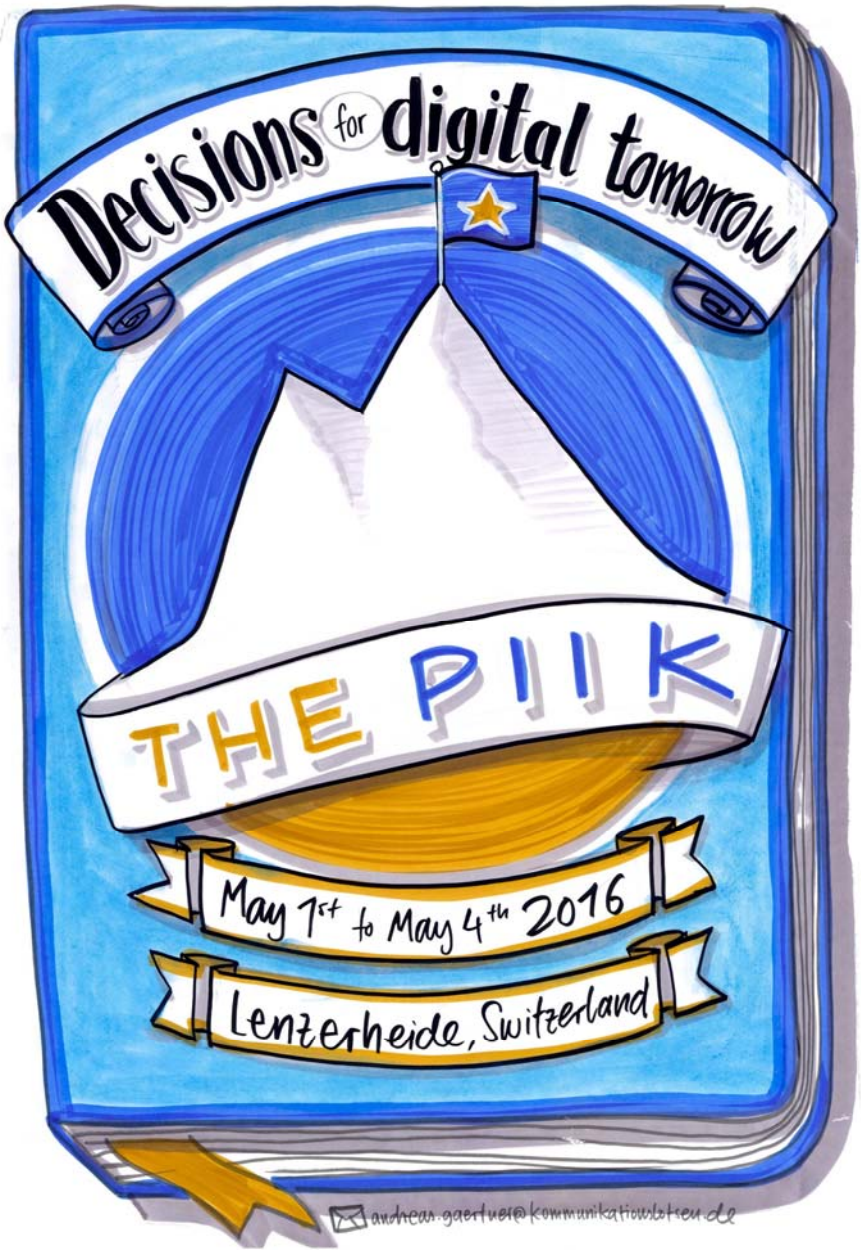
THE PIIK

The Solution Tank on Digital Transformation

May 1st to May 4th, 2016 | Hotel Guarda Val | Lenzerheide, Switzerland

MEDIA RELEASE



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Summary

The PIIK: Empowering leaders in the digital transformation – An exclusive workshop bringing together industry leaders and international scientists.

Our world is digitally transforming. A lot of uncertainty exists within and among enterprises. The digital revolution reshapes the ways in which companies produce and people consume and recasts the connections between companies and individuals on marketplaces. These changes have caused a lot of uncertainties in markets, have questioned analytics, and call for big shifts in strategic decisions. Today, extraordinary extensive data records exist in organizations seizing the opportunity to provide answers to fundamental questions raised by this conversion. Essentially, the digital transformation has created a vast array of new opportunities and just as vast new challenges.

To empower industry leaders to master the digital transformation, the University of Zurich's Research Priority Program (URPP) on Social Networks brought together 15 cutting-edge international scientists and 18 industry leaders of five Swiss organizations in a three-day workshop in Lenzerheide in May 2016. The key objective of this workshop was to develop potential solutions to a problem in the context of the digital transformation of each organization in collaboration with the organization as well as the academic community.

The workshop was hosted by the URPP Social Networks from the University of Zurich, and it was chaired by Marketing Professors Dr. René Algesheimer and Dr. Martin Natter, and Assistant Professor of Network Science, Dr. Claudio J. Tessone.

In preparation for The PIIK, CxOs and managers of five leading Swiss organizations have been interviewed on their challenges in the digital transformation. The interviews were discussed by fifteen of the world's leading scientists in the fields of network science, data science, and online marketing to identify the key question to work on during The PIIK.

During The PIIK, industry leaders and scientists met in small groups, and discussed and developed ideas on how to benefit from social media and big data analytics. Instead of re-framing existing problems again and again, science-to-industry and industry-to-science knowledge spillovers were stimulated to enable the participants to take the next steps. Besides these intra-organizational discussions, the exchange between the organizations was stimulated through a what-went-wrong session where each firm presented a short case about the failure of a digital transformation project and the key learnings as well as through BarCamps during which the managers pitched a topic of personal interest to be discussed by all interested participants. During the final panel debate, the key take-aways of The PIIK were discussed.

The PIIK shall be continued as a unique, industry-exclusive and invitation-only workshop bringing together cutting-edge international scientists and industry leaders in a stimulating and inspiring environment. The preparations for The PIIK 2017 have already started.

Organizing Committee

René Algesheimer

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Professor of Marketing and Director URPP Social Networks

Founder of The PIIK

Martin Natter

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List of Participants

Industry leaders (in alphabetical order)

- Juan Baron, Ringier AG: Chief Digital Officer
- Xiaoqun Clever, Ringier AG: Chief Technology & Data Officer
- Jerry Fohringer, Migros: Head of Customer Relationship Marketing
- Michel Gicot, Die Mobiliar: Head of Corporate Development; member of the Executive Board
- Sunnie J. Groeneveld, DigitalZurich2025: Managing Director
- Gundula Heinatz Bürki, Die Mobiliar: Head of Smart Analytics and MobiLab ETH
- Johannes Höhener, Swisscom AG: Head of Digital Banking Initiatives
- Iris Kornacker, Swisscom AG: Head of Big Data Solutions
- Laura Meyer, UBS Switzerland: Head Digital Distribution
- Andreas Nicklas, Lithium: Senior Executive Business Development & Social Commerce EMEA
- Patrizia Pesenti, Ringier AG, DigitalZurich2025: Member of the Boards Ringier Publishing & Entertainment
- Jan Rihak, UBS Switzerland: Head Multichannel Strategy
- Daniel Rüegge, UBS Switzerland: Head Client Analytics
- Roman Sigrist, Ringier AG: Head of Projects CEO Office
- Klaus Volken, Die Mobiliar: Head of Marketing
- Marc Walder, Ringier AG: CEO
- Reto Wangler, UBS Switzerland: Joint Chief Operating Officer
- Michael Wu, Lithium: Chief Scientist
- Jürgen Ziehfreund, Swisscom AG: Head of New Business Development
- Wolfgang Zimmermann, Migros: Senior Customer Experience & Technology Manager

Scientific leaders (in alphabetical order)

- René Algesheimer, University of Zurich: Professor of Marketing
- Alex Arenas, Universitat Rovira I Virgili: Professor at Computer Science & Mathematics Department
- Stefano Battiston, University of Zurich: SNF Professor of Banking
- Guido Caldarelli, IMT Institute for Advanced Studies Lucca: Professor in Theoretical Physics
- Yuxin Chen, NYU Stern Shanghai: Distinguished Professor of Business
- Sebastiano Alessio Delre, Bocconi University: Assistant Professor of Marketing
- Utpal Dholakia, Rice University: Professor of Management
- Christian Hildebrand, University of Geneva: Assistant Professor of Marketing Analytics
- Reto Hofstetter, University of Lugano: Associate Professor of Marketing Management
- Martin Natter, University of Zurich: Professor of Marketing
- Markus Meierer, University of Zurich: Project Leader URPP Social Networks
- Daniel Shapira, Ben Gurion University: Senior Lecturer of Business Administration
- Andrew Stephen, University of Oxford: L'Oréal Professor of Marketing
- Claudio J. Tessone, University of Zurich: Assistant Professor of Network Science
- Florian von Wangenheim, ETH Zurich: Professor of Technology Marketing

Moderation and guests (in alphabetical order)

- Samuel Bitton, Samuel Bitton Photography: Guest Speaker and Exhibitor
- Frank Edelkraut, Mentus GmbH: Managing Partner & Interim Manager in Human Resources, Moderator
- Andreas Gaertner, Kommunikationslotsen: Visual Fascilitator

Group Workshops

During The PIIK, each organization worked on a pre-defined topic in collaboration with the scientists and developed ideas on how to solve problems arising from the digital transformation. On the last day, results of these discussions were presented to the corporate leader. Following, the workshop topics are summarized.

How to leverage customer data within companies operating in different industries?

Companies collect customer data in order to better address customer needs and improve targeting. However, companies operating in different industries often collect different levels of information and are reluctant to

share their data across branches. Especially the ones collecting only little or no customer data would benefit from enhanced cooperation. Thus, companies operating in different industries should exploit existing synergies and leverage their customer data. If transaction data of one branch of the company was enriched with transaction data of others, this would enable the development of customer profiles across industries and channels. These profiles could then be used for targeting customers with personalized recommendations and promotions. In order to test the validity of the derived customer profiles, the online environment offers a convenient implementation platform, allowing for the provision of targeted offers, recommendations, and individually adapted user interfaces.

How to leverage data analytics in customer targeting and community building?

Companies nowadays are surely not in shortage of possibilities and avenues for data analytics. However, often times, a digital strategy to guide analytic practices is what they lack. If customers' preferences could be measured from different sources and different business units, high value could be generated in terms of targeting customers with similar preferences. Such techniques can also be paired with network analysis in community building to enhance the cohesion and engagement of the community through identifying influencers and increasing user generated content. However, these benefits from data analytics are only possible when they are aligned with coordinated strategic goals. With the structure of analytic practices aligned with the business objectives, employees should be empowered to fully explore the vast potential of modern data analytics.

How to accelerate the whole company in the digital transformation process?

Many companies consist of a portfolio of heterogeneous organizations, cultures, and technologies that do not necessarily share the same strategic direction. A big challenge they face is to connect the different entities to foster collaboration and accelerate the digital transformation. To achieve this, it is desirable to build an ecosystem that facilitates cross-unit collaboration, data and knowledge sharing such that all entities benefit. Such an ecosystem would allow to evaluate the contribution of each entity and to share the revenue accordingly. Building this ecosystem could be stimulated by: (1) improving data accessibility and standardizing data handling regulations across the different entities, (2) educating the employees through regular workshops, (3) incentivizing bottom-up innovation by encouraging employees to collaborate with people outside their company/unit to develop new business ideas, as well as (4) creating new business models based on cross-entities collaboration.

How to use existing data to grow the customer base for new ventures faster?

A crucial step to the successful launch of a new digital service is generating a critical customer mass. The question is how companies can use data gathered from existing digital services to reach this critical mass. A first strategy is to bring the audience from existing services to the new service. This can be done by leveraging user data to (1) identify a target segment of influential customers and (2) identify cross-platform behavior and offer cross-platform recommendations. A key requirement for these methods is the ability to identify customers across platforms. A second strategy is to bring the new service to the audience. This can be done by adding features of the new service to the existing services and leads to a broad awareness while trust is created through the link with the established brand. However, it is important to consider the costs of these strategies as marketing techniques based on data from third parties could be more efficient.

How to track, identify, and leverage the customer journey?

Online journeys of clients become more important to both companies and customers. Therefore, many companies plan to leverage site-tracking data and tools to optimize online customer journeys in short-term, and to provide individualized customer journeys in long perspective. To provide better online journeys, companies first observe their customers' activities on the websites and try to understand what and where should be optimized. Then they can provide dynamic personalized content. After gaining enough experience in this step, companies will be able to provide individualized customer journeys. To generate necessary data, different tools could be employed, e.g., web analytics, A/B/N testing, survey, UX, focus groups, etc. Many models and/or techniques can be taken to analyze the data, such as the long-memory Markov-Chain models, the betweenness-preference for temporal networks, extrapolating missing information based on social data, and the conditional inference for persona detection.

BarCamps

The exchange between the organizations was stimulated through BarCamps. For the BarCamps, managers proposed a topic of personal interest related to challenges of the digital transformation to be discussed by all interested participants in a one-hour session. In the following, a selection of those topics is presented.

Risks and opportunities of leveraging customer data across companies

Sharing data enables an improved customer understanding. Yet, it also raises privacy concerns. Using aggregate level data and providing customers with incentives to increase acceptance could alleviate these concerns. Also, companies should reach contractual agreements to protect their competitive advantages and prevent unfair behavior. If balance is kept between customer and company interests, data sharing could benefit both.

Motivating companies of the group to share data/info with each other

Groups of companies face the problem of sharing data with each other in a double-win way. Stronger companies do not want to share data while weaker ones do not have enough power in data-sharing negotiation. This issue could be solved by (1) switching the CEOs or lower managers, (2) forcing companies to share data, (3) merging companies, (4) developing revenue recognition, (5) setting up joint objectives, and (6) adding internal values to collaboration.

Creating synergies between different market places

A key requirement to create synergies between market places is the presence of similar target audiences. When this similarity is lacking, collaboration with other companies might be more fruitful. Especially by focusing on the health care market and social responsibility, companies can find the support from their customers to share their data with third parties, and therefore are more willing to contribute to a digital ecosystem.

Tailoring the customer journey for higher conversion rates

Buying services online typically requires customers to go through a standardized but often very lengthy process. By tailoring the customer journey according to their needs, higher conversion rates can be obtained. A potential approach to tailor the journey is to (1) identify a set of archetypal customers based on historic data, surveys or secondary data (e.g. Facebook) and (2) create personalized landing pages for each archetype.

Building a brand community around financial or insurance services

People are interested in buying products like insurance or financial services only at critical moments in their life. Thus, companies who offer such services have a hard time building a brand community around their products. A suggested solution is to (1) understand the intrinsic needs of the customers and their motivation to buy such products and (2) build a community around their needs offering customers advice by experienced members.

The added value of data sharing for the customer

Recommendations across different product categories based on identified customer journeys can be made by sharing data among entities with the same type of audience. With advanced data analysis it might even be possible to offer prepared shopping cards based on previous behavior. Furthermore, data sharing offers the opportunity to develop a cross-entity delivery service and improve product portfolio management, leading to better customer experience.

Factors characterizing best practices in leveraging big data within companies

Big data require cooperation of business units and data analysts within companies. Yet, often there is a lack of mutual understanding across disciplines. Specialized employees who take on the role of ambassadors can be deployed in order to translate knowledge across units and promote collaboration. Flat hierarchies further benefit cooperation and enable companies to fully leverage the opportunities that come along with Big Data.

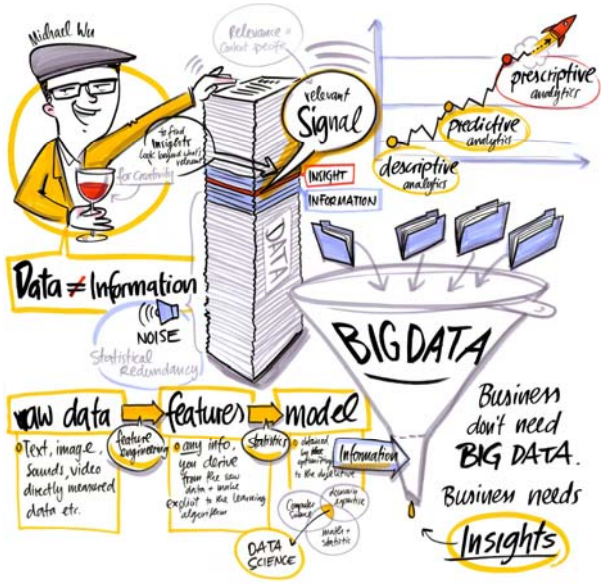
Incentivizing data sharing across business units

Data analytics is at its best to increase internal margin when it is synergized and shared across business units. To achieve that, a total increase in the benefit at the group level has to be demonstrated across business units to create buy ins. In addition to that, to motivate business units in sharing, financial compensation in different forms should be taken into consideration.

Keynote Michael Wu, Chief Scientist Lithium

Data Science in Industry: From Data to Disruption (Summary)

By now, most businesses recognized the importance of big data. The value of big data is typically hidden in the information and insights we extract from it. It is these information and insights (not the petabytes of data) that help business executives make better decisions, take better actions, and build better products and services.



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While insights are what businesses really want, no one can systematically find them reliably, because it is a discovery process. But one key to insights discovery is to look just beyond what was relevant (i.e. what was thought to be the irrelevant data). Today, data scientists are the only way that companies know how bridge the gap between their big data assets and the actionable business insights.

So what do data scientist do? This can be summarized in four steps:

1. Get the data – This involves much plumbing of the data pipeline and mundane data cleaning and massaging.
2. Feature engineering – This is the process of extracting the implicit information within the data, and make it explicit to the machine learning algorithms. It is typically the most challenging step because it require deep domain knowledge.
3. Modeling and validation – Building the models and validating them consist of pretty standard techniques in math and statistics.
4. Visualization and communication – This step also requires much domain knowledge. It involves translating the complex math/stats into business terms, so that business executives can make the best decision with the data they had.

From an industry's perspective, data science as a business discipline is actually not that new - it was called business analytics. All analytics go through three stages of evolution as they mature:

1. Descriptive analytics – This class of analytics uses simple statistics to summarizing past data that already exist so you know what has happened. Majority of the business analytics are descriptive.
2. Predictive analytics – This class of analytics involves using data that you have to construct a model that help you estimate data that you don't have. Although the most common use case is to forecast future data (which no one has), the most powerful use cases are non-temporal (e.g. sentiment analysis, influence scoring, intent inference).
3. Prescriptive analytics – This class of analytics is all about optimizing something so the system can prescribe an optimal solution for the decision makers. The simplest example of this is a GPS, which prescribe a route that optimizes the shortest distance, fastest travel time, or other objective functions. But the most powerful use cases are not limited to geospatial domain, since we can optimize business processes and operations.

Traditionally, all BI (business intelligence) systems have descriptive analytics, most have some predictive capabilities, and some advance BI system also provide prescriptive analytics. However, these systems are passive, because humans still make the final decision about what actions to take. Today, the industry is moving from BI to AI (artificial intelligence), where the system can become active in the decision processes. A true AI is where the machine can actually make the optimal decisions and take those actions for us (e.g. robo-advisors, self-driving cars). This might be scary, but it also opens up interesting opportunities.

In order to truly achieve market disruption, better decisions and actions are certainly necessary, but it's usually not enough. We also need to build new product and services that revolutionizes how consumers' conduct their daily lives. This will often require embedding analytics (whether it's descriptive, predictive, or prescriptive) into a company's product/service in novel ways. And this can only be achieved with deep collaboration between data scientists and decision makers.

Keynote René Algesheimer

Looking Behind the Curve: Making the right Decisions today for tomorrow's challenges (Summary)

What answer does The PIIK have to the question of how companies remain capable of action in a volatile, uncertain, complex and ambiguous (VUCA) world? The key take-aways in terms of general orientation, actions, and impact have been summarized in this keynote.

General orientation: What general orientation seems to be required to frame an industry 4.0 ready-organization?

1. Value: "Leader's DNA is difficult to kill". Put your values into practice in the company.
2. Plan: The future is not a place you run towards. It is a place that you create. Your ability to shape your own future depends largely on how well you communicate, where you currently stand and where you would like to go.
3. Stop thinking offline and online. Online and offline are just paths, but we want to understand the motivation to travel.
4. Stories: People seldom notice facts, or technical innovations. However, they do remember stories. Communicate with employees and customers in stories they can understand.
5. Innovation: Many companies do not have a structured approach to encouraging innovation. Create a climate welcoming ideas and innovation in your company. Create systems for idea development and behavior-based analytical tools so that the value of the data can be understood and used by the employees.
6. Big: Big data also means "big questions", "big decisions" and "big morality".

7. Lab: Without data there are no analyses. Without analyses no optimization. Create a data culture of “proving, testing, deproving” and the insight gained from continuous, experimental test environments. Turn your company into an ongoing laboratory.
8. Culture: Strategy and technology are the easier company tasks. By contrast, the corporate culture is more difficult to change. Getting employees in companies to accept new technologies, business models and processes is the major challenge of this era. How can we be certain that every employee experiences and lives the digital transformation?
9. Trust: You may want to create a new system of trust in your organization, employees, customers and stakeholders.
10. Don’t give up: Don’t give up in general. But specifically, don’t give up completely your core business for what you stand for.

Action: What actions should be taken that follow these general orientations?

1. Inspect: You don’t get what you do not inspect. Set your organization up in a way so that objectives & milestones are reviewed on a weekly base.
2. Automate and orchestrate: Meg Whitman also indicated at the WEF that companies can automate and orchestrate much more. She predicted early potential cost reductions of 20-30% for companies.
3. Cloud: Think about what Cloud can do for you. To get to Cloud as quickly as possible, think about your workload: a) what would you like to know in your own data center that only your employees should be able to access; b) what can be bundled into a personal Cloud, what into a managed, virtual Cloud; c) which applications you don’t have a use for any more, but would simply like to sell them and host in Cloud, such as Salesforce?
4. Accelerate: Get your company moving at WARP speed. As Meg Widman said at the WEF: “The future belongs to the fast”. If you don’t manage to speed up your company so that it is in a position to benefit, then by definition you will fall behind. Time is the new currency. Accelerate!
5. Distribute the loads and decentralize the decisions. You no longer have the time to absorb all of the relevant information yourself.
6. Invictus: Identify your vulnerabilities and delete all possible “single point of failures” that will cripple the whole apparatus.
7. Driver: Be the driving force behind the best ideas, those that clearly offer customer benefits and become EBIT-relevant and part of the core business within a short time.
8. Ideatize: Create opportunities and incentives to collect, advance and launch new ideas via multi-stage model with concrete employee incentives on innovation days, hackathons…, results and success stories.
9. Interface: Artificial intelligence will interact with people. Therefore, create new, behavior-based analytical interfaces that supports employees to use data.
10. Track: Solve end-to-end tracking, potentially by single-sign in solutions.

Impact: What is the impact to be achieved by these actions?

1. Resilience is the ability of an organization or a whole system to survive crises unscathed and to even grow from them. In a VUCA framework we can characterize organizational resilience as a) situation awareness, b) management of keystone vulnerabilities, and c) adaptive capacity.
2. Since speed is absolutely essential, you must ensure that the right people are in the right job at the right time with the right attitude. Create agility with more units that make contributions, squads with greater autonomy, a clear mission and business peers as their contacts. How do you know that you are being quick enough? Also remain attentive to signals that you have overextended your company. Listen-into your organization.
3. Out of the box thinking and innovations: The main problem about innovations is the tyranny of common sense. "It can't be done differently; that's how it's done." Many of our current ideas were created, not in light of the prevailing circumstances but to confront the circumstances of the past. Our heads are still hypnotized by the past, but we have to free ourselves from it. A structured and incentivized idea creation system will foster out of the box thinking.

Technology at the moment is changing the essence of our humanity. The question is: Are we ready for that? The PIIK is a response to this challenge, a meeting of people who have something to say and will try to find solutions together.

Contact

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