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**Periodical Part**

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# Marketing Review St. Gallen



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## Conversational Commerce

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«Wissen schafft  
Wirkung» 



# Conversational Commerce

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**S**tellen Sie sich vor, Sie sind kürzlich umgezogen und möchten Ihre Adressänderung Ihrer Bank bekannt geben. Wenn Sie wie die meisten Kunden vorgehen, werden Sie das vermutlich über den schriftlichen Korrespondenzweg tun oder nach etwas mühseliger Suche vielleicht sogar über Ihr E-Banking. Sofern das Ihre Bank erlaubt. Ich musste das kürzlich ebenfalls tun, als Kunde von Selma Finance. Die Änderung habe ich über ein Chatfenster bekannt gegeben und in weniger als zwei Minuten eine Bestätigung erhalten. Das ist zwar nicht der Hauptgrund für das starke Wachstum der aufstrebenden FinTech-Unternehmen, aber es zeigt, dass sie eine neue Dimension von Kundennähe schaffen, schneller und vor allem besser (m)ein Kundenproblem lösen – und digitale Dienste anbieten, die auch noch Spass machen.

Diese Form von Conversational Commerce, also der gezielte Einsatz von digitalen Services wie Chatbots oder digitalen Sprachassistenten zur Gestaltung der Kundenbeziehung, erlaubt es, rasch die

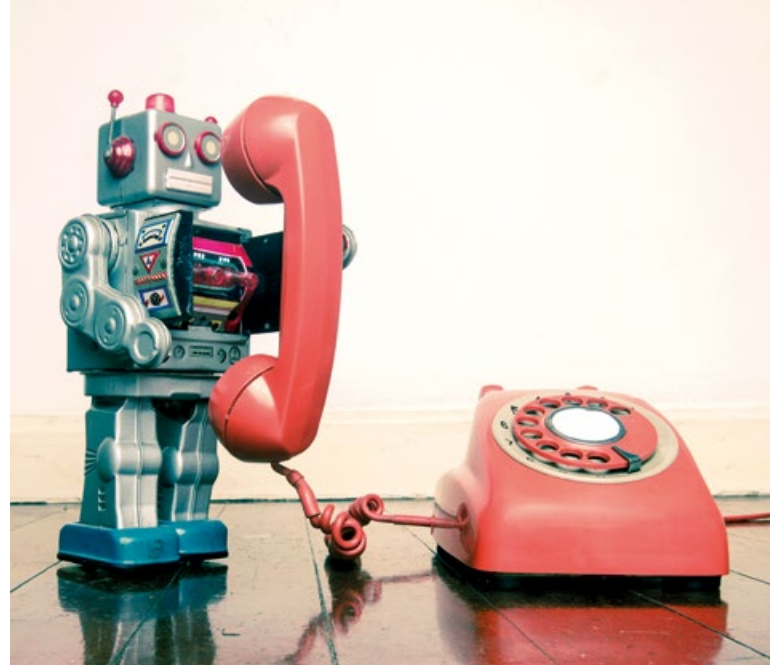
gewünschte Information zu finden, anstatt sich durch viele verschachtelte Websites zu quälen. Chatbots können nicht nur Aufgaben im Kundenservice übernehmen, sondern auch aktiv personalisierte Empfehlungen abgeben und somit Teile des Vertriebs automatisieren. Plattformanbieter wie Facebook Messenger, Google Dialogue oder WhatsApp Business treiben diesen Trend weiter voran. Und Plattformanbieter wie Unternehmen treffen auf willige Kunden, denn wir sind es gewohnt, uns mit unseren Freunden und der Familie in Messenger-Systemen à la WhatsApp & Co auszutauschen.

Unsere aktuelle Ausgabe soll Ihnen eine erste Orientierung im schnell wachsenden Conversational-Commerce-Umfeld geben und zeigen, wie sich die Zukunft von Marketing und Vertrieb durch den Einsatz von neuen Technologien rasant verändert. Sie soll Ihnen zugleich auch neue Denkanstösse sowie Impulse für Praxis und Forschung liefern. Wir wünschen Ihnen eine inspirierende Lektüre!



**Prof. Dr. Christian Hildebrand**  
 Universitätsprofessor für Marketing Analytics und Direktor des Institute of Behavioral Science & Technology sowie des TechX Lab an der Universität St. Gallen  
[christian.hildebrand@unisg.ch](mailto:christian.hildebrand@unisg.ch)

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**Hans-Erich Müller**

# Conversational Commerce in Finance

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Patrik is founder and CEO of Selma Finance. Patrik is a private banker with 10+ years of experience in customer advisory, portfolio management and private wealth management in the Swiss banking industry. Patrik is a Chartered Financial Analyst (CFA) and holds an M.Sc. from Copenhagen Business School. In addition to Patrik's banking career, he advised multiple startups at Startup Bootcamp Copenhagen, one of the largest accelerator programs in Europe.

**The interview is conducted by Prof. Dr. Christian Hildebrand, Full Professor of Marketing Analytics and Director of the Institute of Behavioral Science & Technology and the TechX Lab at the University of St. Gallen, and Fotis Efthymiou, M.Sc., Ph.D. Candidate and Research Associate at the Institute of Behavioral Science & Technology, University of St. Gallen**



**When I open your webpage, the first thing I see is a female-looking avatar with blond hair and round glasses that greets me by saying: "Hi, I'm Selma, your digital investment assistant. Let's find out how to best invest your money for the long term."**

**This is radically different from the standard robo advisors in the market. What's the logic behind your conversational approach to investing?**

We did not want Selma to be like all the other 'robo advisors'. Or at least what is considered a robo advisor at the moment. We feel that the word is misused. Robo advisory in many cases is just another word for cheap discretionary automated asset management, and we as a company do not find that very interesting because it is what institutional investors have been doing for years now. At Selma we focus on the 'advisory' part. We focus on how we can build a relationship with our client, how we can help them structure their money over time, how we can be their trusted advisors, how we manage this relationship, how we exchange and how we communicate with the client. Our hypothesis is that a lot of people need help with their finances and a lot of people are not getting the help they need – and are thus not interested in finance. What they'd need is a service that gives them easy access and helps them structure their finances. Selma wants to be that trusted advisor.

We want a trusted advisor conversation with a client and that's why the initial step is a conversation with our clients, exactly as you would have with a good private banker.

**The Corona crisis has led to increasing volatility in the markets and hence also in investors' portfolios.**

**Selma is trying to create a personalized experience but in the end it's still an avatar. What's the advantage of having Selma as the face of the company during such volatile times and not you as the CEO?**

There are different things that you would expect from a person compared to a bot. And more importantly, there are also different expectations regarding the things a bot can say, which I can't say as a CEO. But people react differently when it is a personalized bot that looks like a person and sends them a message that a new transaction has been completed on their portfolio. Selma creates a personalized experience. But we also clearly differentiate between Selma, the algorithm, and the human team behind it. Because the human side is still critical across all operations and it's important to be there to help when the clients need specific help on things Selma is not (yet) designed to do, such as handling very complex financial situations, changing their home address or other things that are not directly tied to their investments.

**Let's speak about trust for a moment. Do people trust Selma more than a human advisor – and if so, why is this?**

Yes, I think that's true because people have understood that, when it comes to finance, algorithms work better than humans. There is a certain amount of data that algorithms can handle very well, and we all figure that they're simply better at that than we as humans with our limited brain and computational capacity. I think people appreciate

**Patrik Schär**

Founder and CEO  
of Selma Finance

[www.selmafinance.ch](http://www.selmafinance.ch)



*"Hi, I'm Selma,  
your digital investment  
assistant."*



that Selma is not emotional in situations where people are becoming emotional, such as during the COVID-19 crisis and the high market volatility. However, it is important for us that clients know there is a team of people behind Selma Finance, with excellent customer service support whenever they wish to talk to a person.

**What are the key design characteristics of Selma which in your opinion are crucial for successful usage? Was this intentionally designed from the beginning or gradually developed over time? How important was user feedback?**

Let me answer the last question first. User feedback was and is very important in everything we do. Things are tested constantly with users, feedback and all communications are categorized and mapped. These insights go directly into product development. Usually, we would also have code development sessions together with clients. Due to Covid19, this has become a bit more difficult recently, but we were still running events where we co-designed parts of the interface on the fly with our clients. So, it is part of our DNA at Selma that we develop our services together with the people who use them.

Regarding the avatar, we made some minor adjustments over time. There are certain values that are important for us as a company, and they guide us in what we develop and how we communicate. These are transparency, openness, and friendliness, and we try to put them into practice both in the way Selma as a digital avatar communicates and in all of our internal and external communication. We tried to avoid classical financial images of elderly

men with ties drawing graphs. Selma should be regarded more like a friend or a family member - the clever family member you would ask when it comes to your financial questions.

**Can you explain in more detail how you came up with and developed Selma's 'personality'? Also building on the last question: how important was user feedback versus what you strategically envisioned from the company perspective?**

This is a tricky question. We wanted to have a service that is not dead serious, and we wanted for Selma to have her own personality. We have heard from people that it feels friendly and approachable, but others are saying

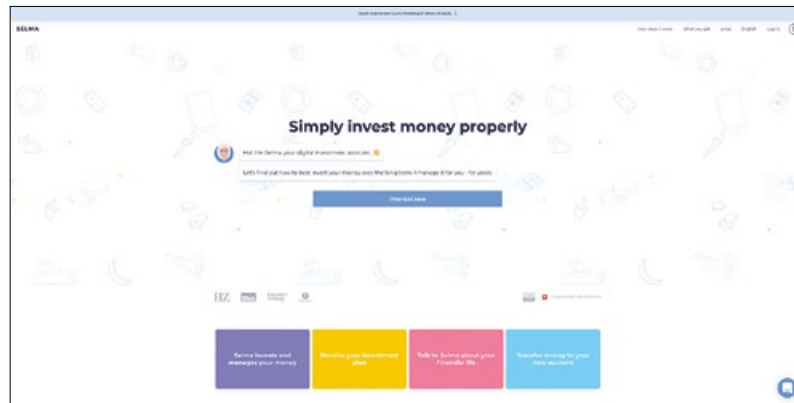
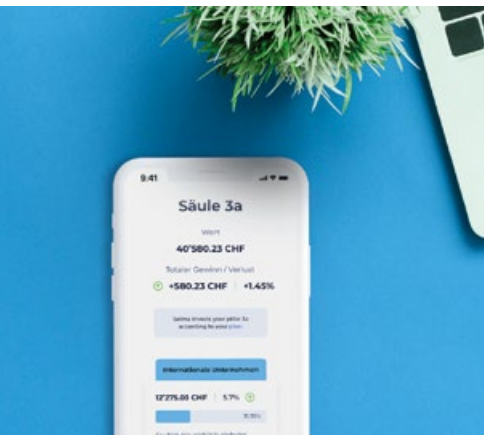
things like: "How can I invest my money according to the advice of something so colorful?"

**Selma uses a lot of emojis and very engaging language that is completely different from the typical banking experience. Doesn't this violate people's expectations about a company that they entrust their money to?**

Maybe to a certain extent, but it is also a strategic move because we didn't want to look like every other banking product. We aim to make the language very natural. When I check out WhatsApp I see how many emojis are in there – they are a very natural part of our language today. I have received emails

„It is part of our DNA at Selma that we develop our services together with the people who use them.“





Landing page of Selma Finance with onboarding of new customers.

and messages from clients that they have never received something like this from a bank, because when you communicate with a bank, it almost feels like you need to put on a tie before you write or speak to them.

### How do you envision the future of more conversational investment services like Selma and their influence on the way we invest our money?

I feel that these products are going to become smarter and smarter over time. For example, there are still things that we discuss face to face with the client, because Selma is not able to accomplish them and has to stay in the background. What we are working on in product development is how we can build more of that sophisticated knowledge and more of that smartness directly into our product, so that Selma can handle more things automatically for our clients. But this is difficult for financial services because we are in a highly regulated environment.

**You have won several awards over the past two years. How is the competition reacting and do you see some changes**

### in how traditional banks aim at becoming more personal or even conversational?

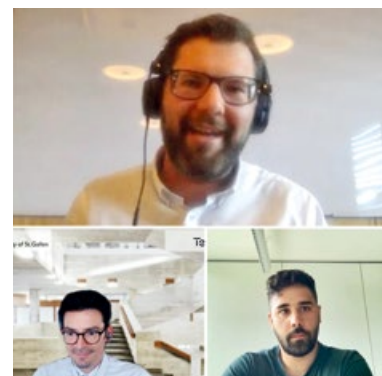
I would have expected more to happen! Some banks started building similar products and working with customers, but we haven't seen many initiatives yet. When the majority in our sector

Selma is open for everybody. In general, we would love to see more women in finance and I think this is very important for society. Years ago, it was the man taking care of the money, and the woman was not interested. It shouldn't be that way and we think of Selma as a way to disrupt those stereotypes. 🚩

„When you communicate with a bank, it almost feels like you need to put on a tie before you write or speak to them.“

still go to the same industry conferences, talking primarily to each other instead of seeking more exchange and conversations with their clients to get inspirations for new and innovative products, it might take longer to see that happen. But that's good for us at Selma.

**Let's take a look at the future now. One theme that is heavily discussed in research and also in society is the idea of "gendered technology". Why is Selma a female and do you think that it might foster existing cultural biases?**



The interview was held via Microsoft Teams with Patrik Schär (top), Christian Hildebrand (bottom left) and Fotis Efthymiou (bottom right).

# A Strategy Framework to Boost Conversational AI Performance

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The development of conversational AI applications is often more tactical than strategic; more technology-focused than focused on the end user and the problem to be solved. This paper provides a strategy framework to structure the effective development of conversational AI in research and practice.

**Prof. Dr. Christian Hildebrand, Sophie Hundertmark**

**C**onversational AI is fundamentally changing how consumers interact with firms. With conversational AI ranging from text-based chatbots automating simple customer service tasks to digital voice assistants providing active recommendations during a shopping trip, conversational AI provides a scalable technology that is poised to create hyper-personalized and contextualized customer experiences that were unthinkable with traditional technologies (Hildebrand & Bergner, 2020; Zumstein & Hundertmark, 2018). As messaging platforms have become the digital de-facto standard for consumers to interact with their friends and families (Economist, 2016), consumers shy away from traditional consumer–firm communication modes and demand faster and more personalized ways of interaction. Recent industry reports highlight the strong cost-saving potential of conversational AI during the COVID-19 pandemic while academic research revealed that digital voice assistants can be engineered to be as effective as the top 20% of human sales representatives (Luo et al., 2019; Maruti Techlabs, 2017). However, consumers often experience frustration (e.g., due to a lack of understanding of what the consumer is saying), express privacy concerns, or experience heightened uncertainty when interacting with conversational AI applications (Hildebrand et al., 2020; Shumanov & Johnson, 2021; Thomaz et al., 2020). As illustrated in the examples in panels A and B of figure 1, despite all chatbots using non-human avatars, both Revolut and Helvetia provide the requested information in short, clear sentences, do not forward the user to a separate website, directly react and respond to the user input as a human would and with the appropriate tonality (even using emojis as a reaction to the positive user feedback in the Revolut example).

As these examples show, the design logic in current industry applications varies tremendously and significantly impacts the user experience. To address this issue, the current paper provides a strategy framework for developing more effective conversational AI applications. Specifically, we integrate prior work on the effective design of information systems and user-centric customer journeys to deliver more effective conversational AI experiences. This model offers a strategic perspective on the effective design of conversational AI, in contrast to the dominant technology focus in recent work on conversational AI (see Rapp et al., 2021), and mitigates common issues along the design, implementation, and deployment phases.

#### **Prof. Dr. Christian Hildebrand**

Full Professor of Marketing Analytics and Director of the Institute of Behavioral Science & Technology and the TechX Lab at the University of St. Gallen, Switzerland  
christian.hildebrand@unisg.ch

#### **Sophie Hundertmark**

Speaker and consultant on digital transformation and chatbots, and external doctoral candidate at the Institute of Financial Services Zug (IFZ) at the Lucerne University of Applied Sciences and Arts, Lucerne, Switzerland  
sophie@hundertmark.ch  
www.hundertmark.ch

### **The Six-Stage Model of Effective Conversational AI**

The model captures six distinct stages of effective conversational AI design summarized in this paper. It integrates prior work on the strategic design of information systems (Baptista et al., 2021; Gable, 2020) and the effective design of user-centric customer journeys in marketing (Lemon & Verhoef, 2016).

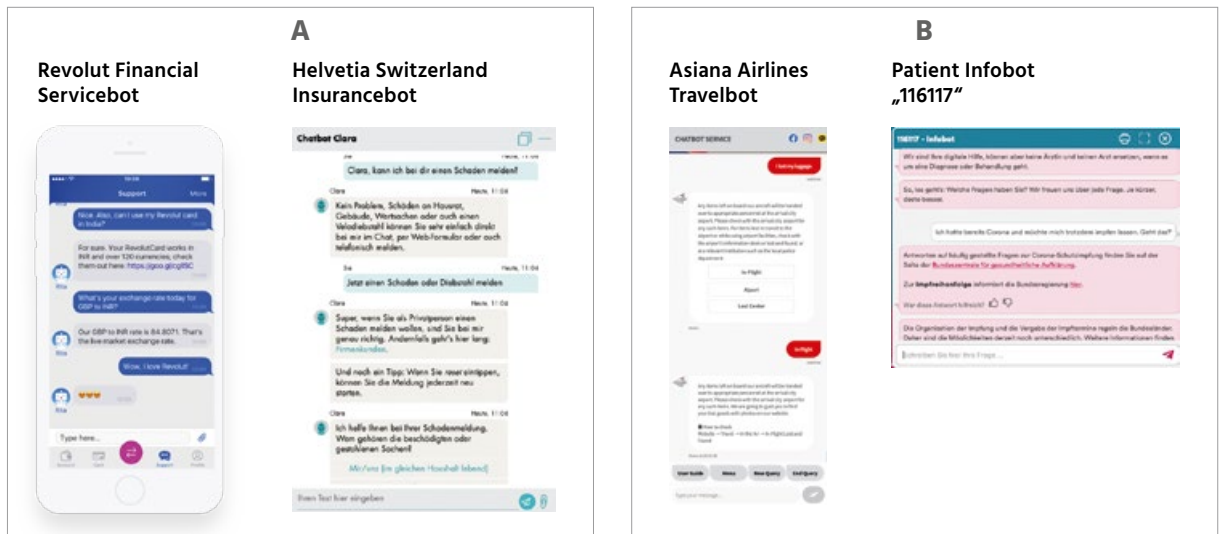
We first isolate the problem to be solved, followed by defining the expected target user. Next, we discuss the critical role of integrating different digital channels and the specific design decisions in the implementation and deployment phase. Finally, we outline the onboarding of the internal stakeholders and the selection of the appropriate technology stack. While this paper focuses on optimizing consumer–firm interactions, the model also applies to any other non-consumer setting (such as developing a conversational AI for internal processes). Figure 2 provides a visual illustration of the distinct stages and key questions in each development stage.

#### **Stage 1 – WHAT: Define the User Problem**

The first stage requires the definition of the specific task that should be automated by the conversational AI. Although this first stage sounds obvious, industry reports suggest a strong focus on the technology infrastructure, internal processes, and governance topics at the outset of a



**Fig. 1: Selected Examples of Chatbots**



Source: Own illustration.

project instead of focusing on the type of problem that should be solved for customers (Nguyen, 2017). We recommend analyzing the entire customer journey and critically evaluating in which stage conversational AI applications contribute to the existing objectives of the business. One dichotomy that helps with prioritization is to critically evaluate whether the trajectory of the business is focused on growth or cost-cutting. For example, if the COVID-19 pandemic requires a strong focus on costs, gaining management support for a pilot focusing on optimizing product information is less likely to receive approval compared to automating call center services through conversational AI to reduce service operation costs.

Our recommendation is to first outline a list of specific tasks with high potential for automation, then prioritize the selected use cases or tasks from a feasibility and business value standpoint. Suppose a company came up with three potential pilot projects in which options to solve the user problem ranged from (1) automating parts of the customer service process through a chatbot, (2) providing automated decision support by offering additional product information on a website through a chatbot, or (3) actively providing recommendations during the sales process through a chatbot. While the first project is arguably highly feasible, the expected business value is comparatively low. In contrast, the last project has a comparatively high business value but

lower feasibility as recommendations have to be highly individualized and contextualized. Finally, the clear articulation of the problem to be solved should also be closely tied to defining how the firm will track progress toward that objective (such as assessing customer acquisition costs before and after the pilot or the duration of customer service calls, depending on the key objective of the conversational AI). In summary, the first stage requires an exclusive focus on the problem that should be addressed from the user perspective.

### Stage 2 – WHO: Define the Target User

The second stage is designed to define the envisioned target user. We recommend the use of methods already employed in prior work on customer journey mapping by defining the “archetypical user persona” (Lemon & Verhoef, 2016). Thus, the company should evaluate the predominant user of the conversational AI service for the defined problem (stage 1). The expected persona/s should be as specific as possible and cover both objective characteristics such as demographics (age, gender, marital status) and subjective characteristics such as the expected emotional state or important values of the user. Anticipating the emotional state of a user is critical as a negative experience of an already frustrated user can lead to a negative downward spiral and a negative evaluation of the firm. For

example, recent research by Hadi (2019) revealed that customers who were in a state of anger or frustration before entering the interaction with a customer service chatbot were even more frustrated after the interaction and evaluated the firm more negatively compared to a group of control customers. Thus, firms are advised to carefully define the expected target user and to incorporate the anticipated emotional state of the user.

### Stage 3 – WHERE: Define the Channel Integration Across Touchpoints

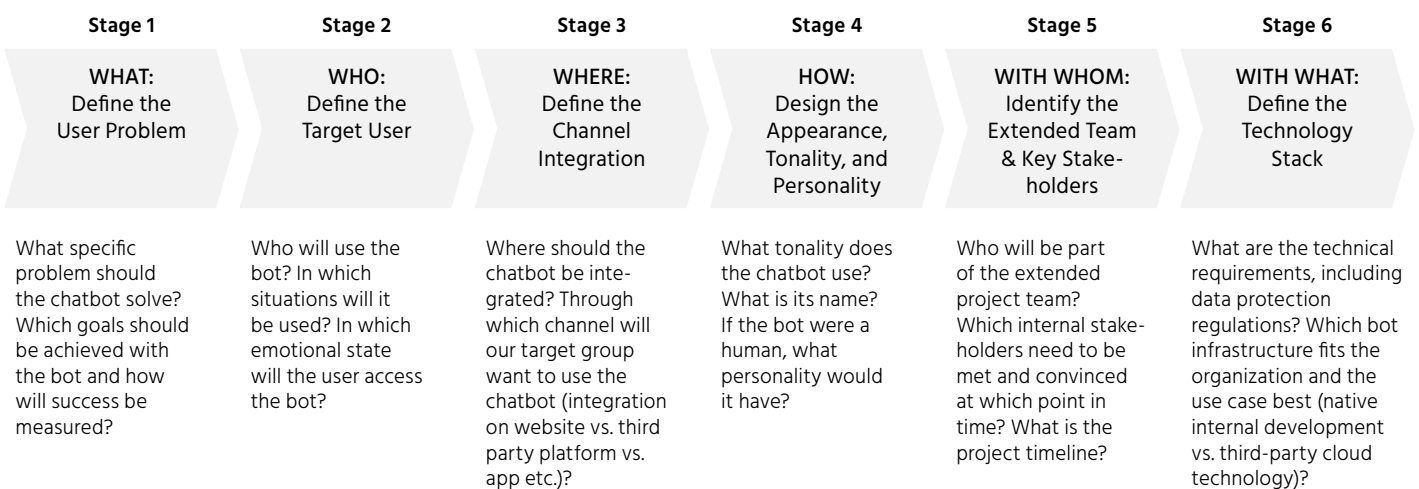
The third stage is designed to assess and decide how the conversational AI application should be deployed. This can range from integration on an existing website or within an existing third-party platform (WhatsApp, WeChat, Facebook, etc.) to deployment as a stand-alone App. This stage requires a decision regarding the core channel of operation and the question how channel switching should be handled across touchpoints. For example, a firm might decide to implement a conversational AI as part of their sales automation processes on the website. Thus, integration and deployment require a decision with respect to where on the website the conversational AI should be made available and what should happen in the case of failed intent matchings (i.e., when the conversational AI does not know how to answer or handle a prospect request). A failed intent matching should move a prospect or existing customer seamlessly from one channel of interaction to the

next. This could imply the seamless integration of human sales representatives taking over. Failed intent matching and ineffective channel integration are major sources of frustration for conversational AI users due to the reduced sense of goal attainment (Leung & Chan, 2020). Thus, objectives of the third stage are to decide which channel to focus on and to consider potential interactions across all channels and touchpoints. Companies are well advised to carefully assess failed intent matchings not only before or during a pilot phase but also at regular time intervals after the conversational AI application has gone live. The majority of conversational AI interfaces provides identifiers that explicitly flag failed interactions or intents in the backend, which can (and should) be carefully and systematically analyzed.

### Management Summary

Conversational AI is fundamentally changing how consumers interact with firms. However, the design logic in current industry applications varies tremendously and significantly impacts the user experience. To address this issue, the current paper provides a strategy framework for developing more effective conversational AI applications. This model offers a strategic perspective on the effective design of conversational AI and mitigates common issues along the design, implementation, and deployment phases.

**Fig. 2: Six-Stage Model of Conversational AI Design**



Source: Own illustration.

#### Stage 4 – HOW: Design the Appearance, Tonicity, and Personality of the AI

The fourth stage encompasses all design-related decisions and involves the visual appearance and the conversational design (the structural and semantic properties of how the conversation between a human user and the AI is governed).

For example, the visual design in the context of chatbots involves the company or brand-congruent design of the digital avatar, the name of the avatar, the coloring and font type. The selection of the avatar and the appropriate naming are critical design choices (Miao et al., 2021) as they directly reflect the brand. The conversational design captures the structural and semantic properties of the conversation. The structural dimensions entail, for example, the frequency or extent of turn-taking (i.e., whether the conversational AI actively promotes a back-and-forth communication as in human-to-human communication). Recent research has demonstrated that a greater extent of turn-taking enhances trust and a more positive evaluation of the brand (Hildebrand & Bergner, 2020). The semantic dimension captures the tonality of the conversational AI and can range from a more formal to an informal tone of communication (using, for instance, more affect-rich language or emojis). The combination of the visual and conversational design ultimately defines the type of personality users will attribute to the conversational AI. For example, more affect-rich language can be used intentionally to engineer a more extraverted “personality” of the conversational AI. Such personality attributions can even be evoked by more subtle cues such as leaving longer pauses to indicate a greater sense of reflectivity on the part of the AI or increasing the variability of vocal frequency to indicate excitement (Hildebrand et al., 2020). In short, human users tend to attribute distinct personalities to the conversational AI, and the systematic visual and conversational design are key factors in engineering the envisioned personality profiles of the firm or brand (Nass & Moon, 2000; Nass et al., 1994).

#### Stage 5 – WITH WHOM: Define the Extended Project Team & Stakeholders

The fifth stage focuses on defining the extended project team and on actively onboarding internal stakeholders. The initiative typically resides in one functional organization (for example, the HR department when it comes to the use of a chatbot for internal trainings of employees or the marketing department regarding the use of a chatbot as part of their digital marketing activities to generate and convert leads).

This stage is essential for winning over the entire organization and extended project team (all internal stakeholders that will either directly or indirectly be involved in the project, such as the internal IT department). The fact that conversational AI applications are based on relatively recent technological developments can lead to internal resistance that needs to be actively managed. This stage is critical for avoiding false expectations while identifying strong internal promoters of the pilot project. It is vital to anticipate and respond to potential internal resistance. For example, it is recommendable to actively communicate how the success of the pilot is measured (for example, in the context of a sales automation project; this may involve the amount of traffic to key landing

#### Main Propositions

1. Conversational AI allows to build and nurture more personalized consumer–firm relationships.
2. To reap the benefits of conversational AI and to reduce the risk of project failure or low acceptance rates among users, we propose a structured process to develop conversational AI applications in research and practice.
3. We recommend to first define the intended use case, the target user, the digital touchpoints, the visual and conversational design characteristics, and finally integrate internal stakeholders and decide on the technology stack.

#### Lessons Learned

1. Start with the problem and end user in mind, not the technology.
2. Consciously design all user-relevant touchpoints and the integration of human employees and the conversational AI.
3. Design the tonality and personality to maximize a coherent brand experience for the user.
4. Actively integrate internal and external stakeholders. Define clear milestones, project timelines, and measures of success.

pages, actual conversion rates on those landing pages, or the number of pages visited before the key landing page).

### Stage 6 – WITH WHAT: Define the Technology Stack

The sixth stage focuses on the selection of the most appropriate technology stack in view of all the preceding stages. The decision on the technology stack is positioned at the last stage of the model for two major reasons. First, the technology stack should be selected according to the specific use case, independent of the internal processes and already existing infrastructure. This sequence is designed to avoid narrowing down the options and distracting from the focal problem of the end user as opposed to the technology. Second, focusing on the technology after the requirements regarding the conversational AI helps to critically evaluate whether the envisioned use case requires a complex natural language processing engine or whether a simple rule-based conversational agent is sufficient.

We acknowledge, however, that this stage also has to incorporate the organizational requirements such as previously used technologies, existing data protection regulations, and other project resources. The presented model may be seen as an ideal archetype, and the actual implementation of a project may require several iterations, going back from the technology to earlier stages. As the number of conversational AI providers continues to grow (ranging from Amazon, Google, Microsoft, and IBM to smaller, more specialized solution providers), we recommend to regularly monitor the development on the technology side. As with any corporate information systems project, large companies usually offer highly scalable but more standardized solutions whereas smaller providers are often more actively involved and offer a better, customized fit.

### Future Directions in Research and Industry Practice

We see four fruitful directions for future work in research and practice. First, future work could further explore the interactions between the individual stages highlighted in this paper. Specifically, future work may further assess the interplay between the users' psychological predispositions and their specific design preferences of the conversational AI. For example, users with higher levels of extraversion might prefer a conversational agent with a larger number of affect-rich, emotional cues (from emojis in written language with text-based chatbots to greater vocal variability in digital voice assistants) (Hildebrand et al., 2020).

Second, future work may further explore the role of adaptive user interfaces (de Bellis et al., 2019) and the importance of more contextualized interactions. For example, a user with higher levels of extraversion might prefer a more emotional voice assistant when searching for a new fashion item or screening a new movie on Netflix. However, the same user may prefer a less emotional voice assistant when searching for a mortgage or optimizing their financial portfolio. Thus, future work could further explore the importance of dynamically adapting the conversational AI to the context or task.

Third, future work could further explore the dynamics of the strategic framework provided in this research over time. Specifically, the type of problems that a bot is expected to han-

Effective conversational AI  
is not a fixed product or  
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dle is a 'moving target' and may change in both scope and complexity over time (stage 1). Due to the implementation across multiple channels the end user base is often becoming more diverse, and consumer expectations are likely to increase as well (stage 2). Also, the digital channel landscape is continuously evolving, raising the question of effective channel integration across touchpoints (stage 3). Finally, consumer expectations and legal frameworks may require developers in the future to use non-humanized avatars to avoid the impression that the agent is a human as opposed to a machine (stage 4).

Fourth, the framework does not specify an explicit "monitoring stage" but in practice this part is of critical importance. Specifically, companies must not forget to monitor the conversational assistant and improve it on the basis of important performance metrics such as bounce rate, user feedback, and the questions received (particularly those that lead to a dysfunctional outcome or dead end for the user). Effective conversational AI is not a fixed product or service but in constant flux with changing user demands. Usually, a chatbot does not cover all of the users' relevant questions immediately after the launch. These must be supplemented with further iterations. If the company has decided on a very distinctive chatbot personality, this must also be critically scrutinized after a certain operating time and possibly adapted depending on user reactions.


Finally, the majority of emerging work on conversational AI in marketing and related areas has focused on studying



relatively narrowly defined contexts such as specific customer service tasks (Hadi, 2019; Hildebrand & Bergner, 2020; Thomaz et al., 2020). There are ample opportunities for more conceptual work based on the current paper to help synthesize the emerging effects into broader organizing frameworks and design principles. This work would help both to integrate and synthesize the quickly emerging empirical work into larger conceptual frameworks and to highlight potential blind spots in empirical research and give directions for future research.

## Conclusion

Conversational AI is fundamentally changing how consumers search, shop, and express their preferences. Despite the opportunity to deliver cost-effective and highly scalable user experiences, emerging research and industry findings

are mixed and range from greater user satisfaction to heightened frustration and reluctance to engage in future use of conversational AI due to privacy concerns and poor intent matching. This paper provides a strategic framework for developing more effective conversational AI based on prior work on the effective design of information systems. We provide a structured process that is designed to mitigate common issues in the design, development, and deployment phase by first clarifying the intended use case, then defining the target user, the integrated digital channels, the visual and conversational design characteristics of the conversational agent, the onboarding phase with internal stakeholders, and finally the envisioned technology stack. We hope that this research inspires future work in the quickly developing field of conversational AI at the intersection of marketing, information systems, and the user-centric design of conversational AI applications. 

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# Digitale Empathie von Conversational Interfaces

## Wie sich automatisierte Interaktionen mit Chatbots empathisch gestalten lassen

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Angesichts der Wichtigkeit zwischenmenschlicher und emotionaler Interaktionsprozesse im Service-Bereich steht der Einsatz von Conversational Interfaces vor der Herausforderung, wie die Interaktion von Kunden mit einer Technologie neben der reinen Effizienz auch einen persönlichen und emotionalen Faktor entwickeln kann. Der Beitrag widmet sich der Relevanz von Empathie in der digitalen Interaktion am Beispiel von Chatbots und zeigt anhand empirischer Studien, dass digitale Empathie aus Unternehmenssicht sowohl möglich als auch erforderlich ist.

**Prof. Dr. Katharina Klug, Prof. Dr. Alexander Hahn**

**T**echnologische Neuerungen lassen die Interaktion zwischen Unternehmen und Kunden immer häufiger automatisiert ablaufen. Zunehmend nutzen Kunden Conversational Interfaces wie Chatbots oder Voice-Assistants, um mit Unternehmen in Kontakt zu treten (Hildebrand & Bergner, 2019). Insbesondere im Kundenservice setzen Unternehmen immer häufiger auf automatisierte Mensch-Maschine-Interaktionen, um z.B. Kundenanfragen zu beantworten (Mehner, 2019). Unternehmen erkennen damit das Potenzial des Conversational Commerce und integrieren Chat- und Messenger-Systeme gezielt als digitalen Touchpoint in die Customer Journey. Dazu gehören beispielsweise stationäre Automaten, intelligente FAQs und – rasant an Bedeutung zunehmend – Conversational Interfaces wie beispielsweise in Form von Chatbot-Interfaces. Ein Conversational Chatbot agiert dabei als automatisch „antwortender“ Konversationspartner in einem Conversational Interface (z.B. Chat-Fenster).

Automatisierte Dialogsysteme mit proaktiven Sales-Anwendungen, wie z.B. Kiosk-Systeme, ergänzen herkömmliche Vertriebs- und Service-Infrastrukturen und lösen diese teilweise vollständig ab. Chatbots gelten als zielgerichtete Digitalisierung von Touchpoints, um die Kundeninteraktion zu verbessern und zu vereinfachen, z.B. durch 24/7-Verfügbarkeit oder Reaktionen in Echtzeit (z.B. Hahn & Klug, 2019).

Jedoch belegen zahlreiche Studien die essentielle Relevanz zwischenmenschlicher und emotionaler Interaktionsprozesse in Service- und Verkaufsprozessen (z.B. Aggarwal et al., 2005; Hennig-Thurau et al., 2006; McBane, 1995). Häufig entscheidet der menschliche Faktor, d.h. die persönliche Empathie zwischen Kunde und Verkäufer, über den Verkaufserfolg. Konsumenten, die den Kundenservice als harmonisch erleben, bewerten das Käufer-

lebnis insgesamt positiver. Gleichzeitig belegen Studien (z.B. Varca, 2009), dass Servicemitarbeiter, die fortwährend Empathie zeigen müssen, gestresster sind. Hier wirkt sich empathisches Verhalten negativ auf Servicemitarbeiter aus, während es aus Kundenperspektive positive Effekte hat. Folglich können langfristig die Unternehmensziele der Mitarbeiter und der Kundenzufriedenheit im Servicekontext zueinander im Konflikt stehen. Hier bietet die Automatisierung über Chatbots für Unternehmen eine duale Chance: Einerseits lässt sich Servicepersonal unterstützen, da Chatbots effektiver und entlastender für Mitarbeiter sind, wenn beispielsweise einfache und wiederkehrende Fragen beantwortet werden sollen. Andererseits lässt sich die Kundenzufriedenheit durch einen schnellen und effizienten Service verbessern – vorausgesetzt, Chatbots agieren empathisch und auf den Nutzer abgestimmt (Luo et al., 2019).

Daher stehen Unternehmen vor den Fragen: Welche konkreten Anwendungsfälle für Chatbots sind langfristig sinnvoll? Inwieweit lässt sich die Interaktion mit Chatbot empathisch gestalten? Wie kann Chatbot-Kommunikation emotional(er) ablaufen?

Basierend auf den umseitig aufgeführten Kernthesen, ist es Ziel dieses Beitrags, den Einsatz von Chatbots sowie die Relevanz von Empathie in der digitalen Interaktion näher zu beleuchten. Zur Erklärung der Wirkmechanismen werden der Anthropomorphismus – also die Übertragung menschlicher Eigenschaften auf Gegenstände – sowie die Theorie des sozialen Austausches herangezogen. Drei Anwender-Szenarien demonstrieren, wie Chatbots in unterschiedlichen Branchen wie Entertainment, Travel oder Events, zur Produkt- und Serviceauswahl einsetzbar sind. Die empirischen Befunde ermöglichen es, Handlungsempfehlungen für die Praxis und Forschungsausblicke abzuleiten.

#### **Prof. Dr. Katharina Klug**

Professorin für Marketing,  
Hochschule Fresenius  
(HSF) in München,  
Fachbereich Design (AMD)

Tel.: +49 (0) 89 386678-35  
katharina.klug@amdnet.de  
www.amdnet.de

#### **Prof. Dr. Alexander Hahn**

Professor für Marketing,  
Technische Hochschule Nürnberg,  
Fachbereich Wirtschaft

Tel.: +49 (0) 911 5880-2840  
alexander.hahn@th-nuernberg.de  
www.th-nuernberg.de



## 1. Konzeptioneller Rahmen

### 1.1 Von der humanen zur digitalen Empathie

In der Mensch-Mensch-Interaktion, insb. im Service- und Sales-Bereich, ist eine empathische Interaktion unerlässlich für die Beziehungsbildung (Sprecher et al., 2013). **Empathie** bezeichnet das Nachempfinden vermuteter Emotionen und Motivationen eines anderen Lebewesens, kurz: Einfühlungsvermögen (Altmann, 2020). Im Kontrast zur Sympathie erfordert Empathie kein Mitfühlen, sondern die gedankliche Vorstellung der Emotion des Gegenübers (Escalas & Stern, 2003). Empathisch zu sein bedeutet, emotional vorausschauend auf seine Mitmenschen zu reagieren und deren individuelle Perspektive nachzuvollziehen. Übertragen auf den Servicebereich heisst dies: Empathische Servicemitarbeiter sind in der Lage, Emotionen des Kunden zu erkennen und zu verstehen sowie angemessen darauf zu reagieren.

Empathie als multidimensionales Konstrukt umfasst sowohl eine *emoti-*

*onale* Komponente, d.h. die Fähigkeit, den emotionalen Zustand anderer Personen wahrzunehmen, als auch eine *motivationale* Komponente, d.h. ein Interesse am Wohlergehen anderer Personen zu haben, und eine *kognitive* Komponente, d.h. die gedankliche Anteilnahme an sowie Reaktion auf Emotionen anderer Personen (Decety & Yoder, 2016). Aus neurologischer Perspektive erlaubt es Empathie, die Bedürfnisse des Gegenübers (emotional) zu fühlen und (kognitiv) zu verstehen.

Im Marketing- und Sales-Kontext bildet McBane (1995) Empathie anhand von drei Dimensionen ab. Die Dimension *Emotionale Ansteckung* ist emotionsgetrieben und beschreibt, dass wir intuitiv diejenigen Emotionen übernehmen, die wir bei anderen Personen beobachten. Ein Kunde lächelt zurück, wenn ihn der Servicemitarbeiter anlächelt. Die Dimension *Empathie-Betroffenheit* spiegelt wider, inwieweit wir uns als mitfühlend wahrnehmen und unserem Gegenüber dies offen zeigen. Diese affektive Komponente von Empathie ist vergleichbar mit der authentischen Offenbarung

seiner Person. Der Kunde erlebt den Servicemitarbeiter als einfühlsame Person, die eigene Fehler eingesteht. Die Dimension Perspektivübernahme versetzt uns (gedanklich) in die Lage unseres Gegenübers. Diese kognitive Dimension der Empathie ist den Mechanismen der Reziprozität entlehnt, da mit dem Perspektivwechsel ein Gleichgewicht in der Austauschbeziehung angestrebt wird. Der Kunde bemerkt, dass der Verkäufer sich an seinen Namen erinnert und fühlt sich verpflichtet, sich den Namen des Verkäufers zukünftig auch zu merken, damit er kein empathisches Ungleichgewicht herstellt und so unhöflich wirkt.

Obwohl Empathie als eine zutiefst menschliche Fähigkeit gilt, belegen Studien, dass auch Maschinen zur Empathie – zur digitalen Empathie (Hahn et al., 2019) – fähig sind, indem sie Mechanismen des sozialen Austauschs, wie emotionale Ansteckung, nutzen (z.B. Lohmann & Zanger, 2018).

### 1.2 Vermenschlichung als Voraussetzung der digitalen Empathie

In der Mensch-Maschine-Interaktion tendieren Nutzer dazu, Maschinen (Computer, Roboter, Bots etc.) als menschliche Interaktionspartner wahrzunehmen, d.h. sie „vermenschlichen“. Dabei schreibt der Nutzer dem Verhalten nichtmenschlicher Wesen menschenähnliche Attribute in Form von Eigenschaften, Motivationen, Absichten oder Emotionen zu: Der Computer will den Nutzer ärgern, weil er abstürzt oder das Auto ist sportlich, weil es rasant beschleunigt (Epley et al., 2007). Dieser Anthropomorphismus lässt sich auf die Ausgestaltung der Mensch-Maschine-Interaktion übertragen (Duffy, 2003; Epley et al., 2007). Beispielsweise betrachten Nutzer spielerisch agierende Maschinen als extro-

## Kernthesen

1. Im Kundenservice gewinnt der Einsatz von Conversational Interfaces zunehmend an Bedeutung, sowohl aus Sicht der Kunden- als auch der Mitarbeiterzufriedenheit.
2. Die Mensch-Maschine-Konversation weist Parallelen zur zwischenmenschlichen Interaktion auf. Die empathische Qualität von Conversational Interfaces, d.h. ihre digitale Empathie-Fähigkeit, entscheidet über den Erfolg der Mensch-Maschine-Interaktion.
3. Conversational Interfaces als Konversationspartner sollten weniger emotionale Empathie zeigen, um die reelle „Distanz“ zwischen Nutzer und Chatbot zu wahren.
4. Conversational Interfaces als Konversationspartner sollten verstärkt auf kognitive Empathie fokussieren, um im sozialen Austausch eine Vertrauensbasis zu schaffen.
5. Nutzer erwarten von Conversational Interfaces neben menschlicher Empathie eine maschinelle Fehlerfreiheit.

vertiert und wollen eher mit ihnen interagieren als mit ernsten Robotern (Kiesler & Goetz, 2002). Bei Conversational Interfaces bevorzugen Nutzer die Interaktion mit menschlich anmutenden Avataren (Moreale & Watt, 2004) oder ehrlich und kompetent auftretenden Chatbots (Hahn & Klug, 2019). Dietvorst et al. (2018) zeigen, dass Kunden die Mensch-Maschine-Interaktion ablehnen, wenn Maschinen nicht in der Lage sind, persönliche Gefühle und Empathie zu zeigen. Daher ist es für Unternehmen ein wesentlicher Erfolgsfaktor bei Chatbots, neben der reinen Usability auch deren Empathie zu gestalten und zu optimieren. Um diese empathische Qualität zu realisieren, ist ein sozialer Austausch zwischen den Interaktionspartnern nötig.

Ausgehend vom Anthropomorphismus zeigt sich somit, dass eine Mensch-Maschine-Interaktion ähnlich einer Mensch-Mensch-Interaktion interpretiert wird. Daher soll im Folgenden der soziale Austausch zwischen Menschen vertieft werden.

### 1.3 Sozialer Austausch im Conversational Commerce

Conversational Interfaces sind dazu geeignet, den Austausch zwischen Marken und Kunden positiv zu steuern, wenn empathische Qualitäten berücksichtigt werden (z.B. Chung et al., 2020; Hahn & Klug, 2019; Lohmann & Zanger, 2018; Luo et al., 2019). Massgeblich für eine solche Interaktion ist die **Theorie des sozialen Austausches** (Thibaut & Kelley, 1959), die das soziale Verhalten der Beteiligten aus jeweiliger Kosten-Nutzen-Perspektive bewertet.

Für eine sinnstiftende soziale Interaktion zwischen Technologie und Nutzer lassen sich im Kontext der digitalen Empathie drei Aspekte der sozialen Austauschtheorie heranziehen:

## Zusammenfassung

Angesichts der Wichtigkeit zwischenmenschlicher und emotionaler Interaktionsprozesse im Servicebereich, steht der Einsatz von Conversational Interfaces vor der Herausforderung, wie die Interaktion von Kunden mit einer Technologie neben der reinen Effizienz auch einen persönlichen und emotionalen Faktor entwickeln kann. Der Beitrag widmet sich der Relevanz von Empathie in der digitalen Interaktion am Beispiel von Chatbots und zeigt anhand empirischer Studien, dass digitale Empathie aus Unternehmenssicht sowohl möglich als auch erforderlich ist.

(1) Emotional Contagion, (2) Self-Disclosure sowie (3) Reciprocity.

### 1.3.1 Emotional Contagion im Conversational Commerce

In sozialen Austauschprozessen neigen Individuen instinktiv dazu, non-verbale Verhaltensweisen des Gegenübers zu imitieren und sich infolgedessen emotional aneinander anzugleichen (Lohmann & Zanger, 2018). Diese **emotionale Ansteckung** zwischen den Interaktionspartnern ist durch Stimuli wie Gesichtsausdrücke auslösbar (Lishner et al., 2008; Neumann & Strack, 2000) und fördert eine harmonische Interaktion (Sprecher et al., 2013).

Das Auftreten emotionaler Ansteckung durch Face-to-Face-Interaktionen konnte in zahlreichen Studien bestätigt werden (Barger & Grandey, 2006; Mc-Bane, 1995). Empathisches Auftreten

von Servicemitarbeitern verbessert die Wahrnehmung der Servicequalität, wenn Emotionen über emotionale Ansteckung gezielt zwischen Servicepersonal und Kunden übertragen werden (z.B. Hatfield et al., 1994; Tsai, 2001; Pugh, 2001; Lohmann & Zanger, 2018).

Harris und Paradise (2007) und Kramer et al. (2014) belegen anhand non-verbaler Elemente, dass durch emotionale Ersatzinformationen (z.B. betonende Vokalschreibung, wie „aaaalso“, „neeeiinn“) auch in digitalen Interaktionen Emotionen auf einen menschlichen Partner übertragbar und emotionale Zustände beeinflussbar sind. Lohmann & Zanger (2018) demonstrieren, dass emotionale Ansteckung über Emojis wirksam ist. Emojis umfassen emotionale Gesichtsausdrücke in Form von Smileys sowie visualisierte oder animierte Symbole. Sie charakterisieren damit direkte und etablierte Substitute des emotionalen Ausdrucks in der Mensch-Maschine-Interaktion (Ganster et al., 2012). Emojis kommt die Rolle einer emotionalen Ersatzfunktion zu, die den Gesichtsausdruck der Face-to-Face-Interaktion imitiert (Lohmann & Zanger, 2018).

### 1.3.2 Self-Disclosure im Conversational Commerce

Erfolgreiche zwischenmenschliche Interaktionen beruhen auch auf Mechanismen der Selbstoffenbarung. Austauschpartner profitieren dabei von gegenseitiger Transparenz: Nur wenn ein Interaktionspartner verbal oder mimisch eine Information preisgibt, kann sein Gegenüber eine zustimmende oder ablehnende Reaktion darauf zeigen. So signalisiert beispielsweise ein interessierter und freundlicher Gesichtsausdruck des Kunden dem Verkäufer, mit der Erläuterung der Produkteigenschaften fortzufahren. Auch das Ein-

gestehen des eigenen Unvermögens (Failure-Disclosure), wie das Zugeben und Beheben von Fehlern, gehört zur Transparenz zwischen Interaktionspartnern. Sie ermöglicht den Aufbau einer vertrauten und emotional nahen Beziehung (Derlega et al., 1993; De Matos et al., 2007).

In der digitalen Interaktion lässt sich gegenseitiges Vertrauen durch die Offenlegung der eigenen emotionalen Situation oder das aktive Eingestehen eigener Schwächen positiv beeinflussen (Li & Bernhoff, 2009).

### 1.3.3 Reciprocity im Conversational Commerce

Gemäss der Equity Theory (Adams, 1965) fühlen sich Personen, die etwas (geschenkt) bekommen, dazu verpflichtet, die Balance wiederherzustellen, indem sie dies mit einer fairen Gegenleistung auszugleichen versuchen. Dieses Prinzip des gegenseitigen Gebens und Nehmens – der **Reziprozität** – gilt als ein Grundprinzip menschlichen Handelns (Adloff & Mau, 2005; Giesler, 2006). Die Akteure innerhalb des Austauschprozesses entscheiden, ob, mit wem und unter welchen Bedingungen der Austausch ausgeglichen ist. Grundsätzlich lassen sich verschie-

dene Ausprägungen der Reziprozität identifizieren, die von *negativer* Reziprozität (= Geber erwartet eine sofortige Gegenleistung vom Nehmer) über *ausgeglichene* Reziprozität (= Geber erwartet eine Gegenleistung vom Nehmer in der Zukunft) bis hin zu generalisierter Reziprozität (= Geber erwartet keine explizite Gegenleistung vom Nehmer) reichen (Klug, 2017).

Im digitalen Kontext ist der Austausch von Informationen und Daten (z.B. Name des Nutzers, E-Mail-Adresse mit Newsletter Opt-in) mit dem Geben und Nehmen einer analogen Austauschbeziehung vergleichbar (Wu et al., 2006).

## 2. Empirische Studien zur digitalen Empathie

### 2.1 Methodisches Vorgehen

Chatbots sind automatisierte Interaktionspartner, die den natürlichen zwischenmenschlichen Konversationsverlauf in Form eines Echtzeit-Chats widerspiegeln (Hahn & Klug, 2019; Hildebrand & Bergner, 2019). Für die vorliegenden Studien werden Chatbots exemplarisch in den Bereichen Entertainment (Filmauswahl, Studie I), Travel (Flugbuchung, Studie II) und Event

(Sporteventauswahl, Studie III) implementiert, um die Wirksamkeit von digitaler Empathie im Kontext der Mensch-Maschine-Interaktion zu testen. Dafür wurden insgesamt sechs Varianten von Chatbots entwickelt, die die Wirkmechanismen der emotionalen Ansteckung, Selbstoffenbarung bzw. Reziprozität gezielt einsetzen oder darauf verzichten (Abbildung 1). Die Manipulationen der zentralen Variablen wurden mittels Chatbot Best-Practice-Benchmark-Analysen konzeptualisiert sowie qualitative Vorstudien und Pre-Tests überprüft. Die Varianten wurden pro Variable als A/B-Test ausgespielt. In allen Studien ist die abhängige Variable die Conversion-Rate (CR). Sie wird gemessen als Verhältnis der Nutzeranzahl, die die Bot-Konversation beendet hat, zur Nutzeranzahl, die den Bot gestartet hat. Alle Studien sind als Feld-Experimente konzipiert. Die Probanden der jeweiligen Studie interagieren mit einer zufällig zugeteilten Variante des Chatbots (Abbildung 2), um einen Film aus dem Portfolio von Netflix auszuwählen (Studie I), um einen Flug zu buchen (Studie II) oder um ein Sportevent aus dem Angebot von RedBull auszusuchen (Studie III).

Getestet werden die Hypothesen, dass Conversational Interfaces die

**Abb. 1: Conversational Interfaces der Chatbots & Studien im Überblick**

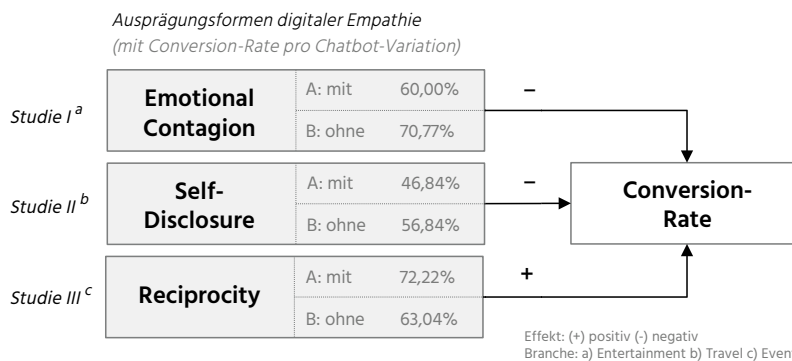
	Studie I	Studie II	Studie III
<b>Kontext, Marke</b>	Entertainment: Filmauswahl mithilfe eines „Netflix-Bots“	Travel: Flugbuchung mithilfe eines „Travis-Reise-Bots“	Event: Sporteventauswahl mithilfe eines „RedBull-Bots“
<b>Stichprobe der Feld-Experimente</b>	n=270	n=174	n=182
<b>Hypothese auf Basis</b>	<b>Emotional Contagion</b>	<b>Self-Disclosure</b>	<b>Reciprocity</b>
<b>Beschreibung</b>	Intuitive Übernahme von Emotionen, die bei anderen Personen beobachtet werden	Offenlegung und Sichtbarmachung der eigenen Person gegenüber anderen	Wahrgenommene Verpflichtung zur Gegenleistung bei entgegenkommenden Personen
<b>Manipulation (A/B-Varianten)</b>	Chatbot mit vs. ohne Einsatz von Emojis	Chatbot mit vs. ohne Eingeständnis eigener Fehler	Chatbot mit vs. ohne namentliche Ansprache des Nutzers

Quelle: Eigene Darstellung.





**Abb. 3: Empirische Effekte digitaler Empathie in Conversational Interfaces**



Quelle: Eigene Darstellung.

nem relativen Anstieg von 14,56% folglich eine CR von 1,1456% erwartbar. Exemplarisch bezogen auf einen mittelgrossen Online-Shop mit 100 000 täglichen Besuchern, einer CR von 1% und 50 EUR durchschnittlichem Bestellvolumen ergibt sich ein Umsatz von 50 000 EUR. Eine Steigerung der CR auf 1,1456% bei sonst gleichen Bedingungen führt zu einem täglichen Umsatzplus von 7280 EUR (Berechnung:  $100\,000 \times 0,01456 \times 50\text{ EUR} = 57\,280\text{ EUR}$ ). In der jährlichen Betrachtung ergibt sich durch die CR-Steigerung mithilfe einer reziproken Chatbot-Konversation ein beachtlicher Effekt.

### 3. Zusammenfassung und Ausblick

Es wird deutlich, dass die Ausprägungsformen der digitalen Empathie im Conversational Commerce für verschiedene Anwendungsfälle sinnvoll sind (Abbildung 3). Chatbots, die Nutzer im Sales- und Servicebereich bei der Auswahl von Produkten unterstützen, sind für viele E-Commerce-Kanäle in Branchen wie Entertainment, Travel und Events einsetzbar.

Übergeordnet zeigen die Studien, dass sich Bots mit Blick auf emotionales Agieren nutzerfreundlich gestalten lassen, wenn drei konkrete Erkenntnisse berücksichtigt werden:

- **Bots sollten keine Fehler zugeben**, da der Nutzer dadurch möglicherweise das Vertrauen in den Bot verliert und sich als „Versuchskaninchen“ degradiert fühlt. Das Einfordern kognitiver Empathie des Nutzers im Sinne von „bitte verstehe meine Fehler“ wirkt im Gegensatz zur menschlichen

Interaktion im Conversational Commerce wenig angemessen.

- **Bots sollten Mechanismen der emotionalen Ansteckung sparsam nutzen**, da emotionale Empathie im Conversational Commerce mutmasslich als distanzlos wahrgenommen wird. Chatbots sind Kommunikationspartner der Out-group, die vorzugsweise Distanz wahren und nicht zu viel emotionale Empathie zeigen sollte. Nutzer fühlen sich von emotional empathischen Bots ggf. irritiert oder manipuliert, da sie wissen, dass sie mit einer Maschine interagieren.
- **Bots sollten reziprok mit dem Nutzer umgehen**, da kognitive Empathie ein Entgegenkommen im Sinne eines „ich verstehe dich und gehe auf dich ein“ signalisiert, Vertrauen gegenüber dem Interaktionspartner aufbaut und vom Nutzer honoriert wird.

Die vorliegende Studie zeigt, dass sich Erfolgskennzahlen im Conversational Commerce, wie die Conversion-Rate, durch Mechanismen der digitalen Empathie beeinflussen lassen. Wie im humanen Austauschprozess, kann es auch im digitalen Kontext gelingen, positive Gefühle auszulösen und den Sender (z.B. Chatbot) als sympathischen Inter-

### Handlungsempfehlungen

1. Bots sollten keine Fehler zugeben, da der Nutzer dadurch möglicherweise das Vertrauen in den Bot verliert und sich als „Versuchskaninchen“ degradiert fühlt.
2. Bots sollten Mechanismen der emotionalen Ansteckung sparsam nutzen, da emotionale Empathie im Conversational Commerce mutmasslich als distanzlos wahrgenommen wird.
3. Bots sollten reziprok mit dem Nutzer umgehen, da kognitive Empathie ein Entgegenkommen im Sinne eines „ich verstehe dich und gehe auf dich ein“ signalisiert, Vertrauen gegenüber dem Interaktionspartner aufbaut und vom Nutzer honoriert wird.

aktionspartner wahrnehmbar zu machen. Solche emotionsauslösenden Wirkungen verdienen es, in künftigen Studien näher betrachtet und beispielsweise mittels Affective Computing (z.B. Hahn & Meier, 2018) messbar gemacht zu werden. Insbesondere der negative Effekt der emotionalen Ansteckung auf die CR verdient es, replizierend und branchenübergreifend untersucht zu werden, um alternative Erklärungsansätze sowie potenzielle Interaktionseffekte zu liefern. So besteht z.B. die Vermutung, dass Chatbot-erfahrenere Nutzer negativer auf Emotional Contagion reagieren, da ihnen die „Manipulation“ der Interaktion offensichtlicher erscheint. 🚩

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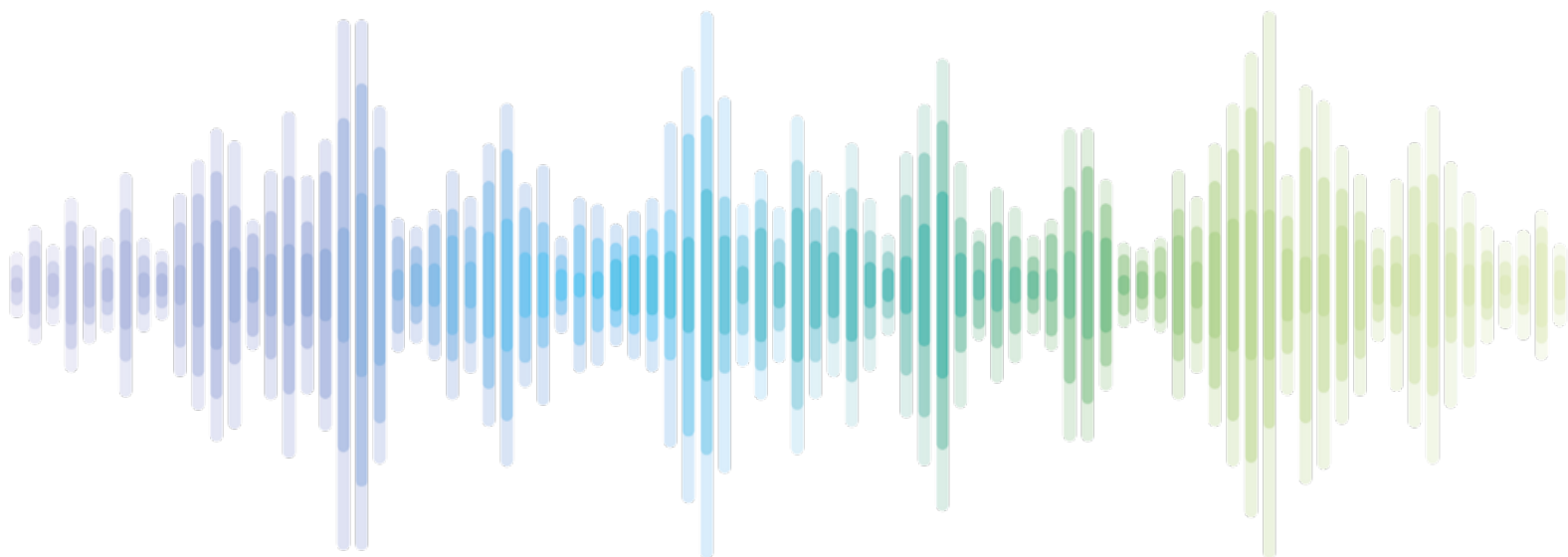
# Engineering Power Attributions in Conversational Agents

## The Unexplored Impact of Vocal Vibrato and Vocal Tract Length

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This work provides evidence for designing perceived power-related personality traits of conversational agents based on vocal features. The vocal vibrato and the vocal tract length of a female and a male humanlike voice, respectively, were systematically manipulated to derive recommendations for voice engineering.

**Fotis Efthymiou**



**AI**-driven conversational agents are popular devices that assist consumers in their daily routine in a number of different ways, from providing information to controlling other devices in a household. Lately, such conversational agents are also becoming part of the workforce in companies, establishing even more strongly their presence in people's lives. The more frequent interactions with conversational agents, combined with the advanced technology we currently possess as well as the strong tendency of humans to anthropomorphize non-human entities make consumers infer anthropomorphic information about these agents (Lee & Nass, 2005; Payr, 2013). In most cases, anthropomorphizing of conversational agents makes users perceive them as more likeable entities, extend the engagement with them (Saarem, 2016), and improves their overall experience while interacting (Wagner et al., 2019).

An increasing body of research suggests that different human traits (personality traits) can be expressed in conversational agents by altering characteristics such as their color, motion or vocal features (Lee et al., 2019). Extrovert (Nass & Lee, 2001), empathetic (Pereira et al., 2010) and humorous (Niculescu et al., 2013) are a few examples of personality traits that have been achieved by altering the aforementioned characteristics of conversational agents. However, many other personality traits have not been demonstrated by conversational agents yet. Fundamental to all social species is the expression of power traits that can be inferred by nonverbal behaviors such as rapid gait and erect postures as well as verbally through loud and deep-pitched voices (Burgoon & Dunbar, 2006). The current research focuses on vocal parameters, examining how manipulations of vocal vibrato or vocal tract length (one at a time) change people's perceptions of conversational agents' power-related personality traits in a female and a male voice, respectively.

This line of research combined with the voice analytics tools we possess can provide new insights on the consumer-technology relationship (Hildebrand et al., 2020). Conversational agents already play a role in customer service and advisory contexts and offer several benefits to companies as sleepless agents. In the near future it is very likely to see them in different industries as our colleagues in the workplace that we have daily interactions and need to cooperate with. Additionally, conversational agents could be used in voice-based advertising campaigns, representing products or brands. This study examines power in human-conversational agent interactions, a concept that has received great attention in human-human interactions due to the ability of power to influence behaviors in social relationships (Burgoon & Dunbar, 2006).

### **Fotis Efthymiou**

Ph.D. Candidate and Research Associate at the Institute of Behavioral Science and Technology, University of St. Gallen, Switzerland  
fotis.efthymiou@unisg.ch

The following paragraphs elaborate on the concepts of power, vocal vibrato and vocal tract length, review existent literature on conversational agents' personalities and, eventually, link the parameters of vocal vibrato or vocal tract length with specific power-related personality traits based on the empirical findings. Finally, managerial implications and avenues for further research are discussed.

### **Perceptions of Power and Interrelated Constructs**

Power takes various forms and influences a wide array of dynamic social relationships by altering people's way of thinking, feeling and acting (Guinote, 2017). Power is closely linked to numerous constructs such as dominance, leadership, expertise and even neuroticism. Dominance and submissiveness are two sides of the same coin, very much related to power relationships and expressed in power moves (Tiedens & Fragale, 2003). Leadership has mainly been addressed in the context of a workplace where leaders hold power as a natural tool to enhance their effectiveness (Fuqua et al., 2000). Knowledgeability and expertise are forms of non-coercive power (Chapais, 2015) and neuroticism is a personality trait that has been negatively associated with referent power and positively associated with coercive power (Karkoulian et al., 2009).

The numerous psychological consequences of power lead to behavioral alterations. For example, power alters people's eagerness to take an action (Keltner et al., 2003), their capacity to adopt other people's perspectives (Galinsky et al., 2006), as well as their emotional experience, expression and responsiveness (van Kleef & Lange, 2020). People with a status of high power show increased self-importance and tend to rely on themselves, whereas people with a low status tend to strongly depend on others (Rucker & Galinsky, 2016). From a managerial perspective, the exercise of expert and referent power contributes to building trust relationships between a buyer and a seller (Busch & Wilson, 1976) as well as between



sales managers and salespersons (Busch, 1980). Moreover, the construct of dominance has been shown to play an important role in advice adherence in professional service conversations, with “dominance transition” (dominant provider in the pre-advice stage to dominant customer in the post-advice stage) leading to enhanced advice adherence due to customers’ increased perception of common ground (Wang & Yim, 2019).

### **The Concepts of Vocal Vibrato and Vocal Tract Length**

Vocal vibrato is a pulsating sound effect produced by the consistent modulation of the vocal fundamental frequency (pitch) (Sundberg, 1995) which – when expressed in the voice – adds quiver. The role of vocal vibrato has been addressed in the context of singers’ voices and has been found to depend on different factors such as age, sex and emotionality, with higher emotional involvement of singers tending to increase the vibrato rate (Shipp et al., 1980). To the best of our knowledge, vocal vibrato has been largely unexplored in the field of digital conversational commerce. In this study the vocal vibrato of Amazon Polly’s female voice (Joanna) was set at three different levels (details are described below) and changes in the perceived power-related personality traits of each conversational agent’s voice were examined.

Another unexplored characteristic is the vocal tract length, which directly influences the timbre of the voice. By

definition, the vocal tract in humans and other animals is the anatomical structure that begins with the vocal folds, terminates at the lips and has the shape of a tube (Fitch & Giedd, 1999). The role of this tube is to filter the ascending frequencies that the vocal folds produce (Fitch, 1997). A longer vocal tract corresponds to a more resonant voice and vice versa. Vocal tract length is closely related with physical characteristics (e.g., height and weight) (Fitch, 1997) but also with personality traits (Armstrong et al., 2019; Holzleitner et al., 2014). Thus, the vocal tract length feature of Amazon Polly’s male voice was adjusted at five different levels (details below) and changes in the perceived power-related personality traits of each conversational agent’s voice were examined.

### **Perceived Personalities of Conversational Agents**

As pointed out earlier, humans have the tendency to anthropomorphize non-human agents even in their most basic interactions (Heider & Simmel, 1944). It is therefore not surprising that in our interactions with conversational agents, we often ascribe qualities (e.g., personalities) to them in the same way we do for human beings, based on the expressed vocal features and gender of the agent. For instance, fast-paced female synthesized voices are perceived as more extrovert personalities, whereas fast-paced male synthesized voices as more neurotic (Lee et al., 2019). Furthermore, female conversational agents with high-pitched voices are perceived as having higher knowledgeability on topics related to love and relationships, male conversational agents with low-pitched voices as having higher knowledgeability on technical issues (Saarem, 2016). Here we examine additional vocal features and test how they influence perceived power-related personality traits of conversational agents.

### **Study Design and Results**

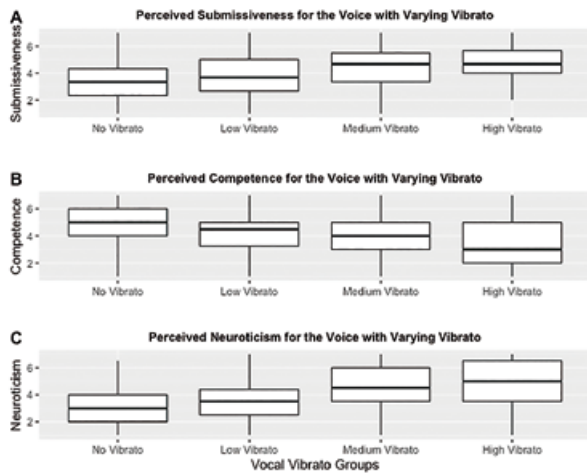
The following sections present two different studies where we systematically manipulated one vocal parameter (vocal vibrato or vocal tract length) and examined alterations in the conversational agent’s perceived power-related personality traits. We report the tools we used for the manipulations and our main findings.

#### **Study 1 – Vocal Vibrato**

Study 1 investigates how the increase of vocal vibrato influences the following perceived personality traits: submissiveness, competence and neuroticism.

### **Management Summary**

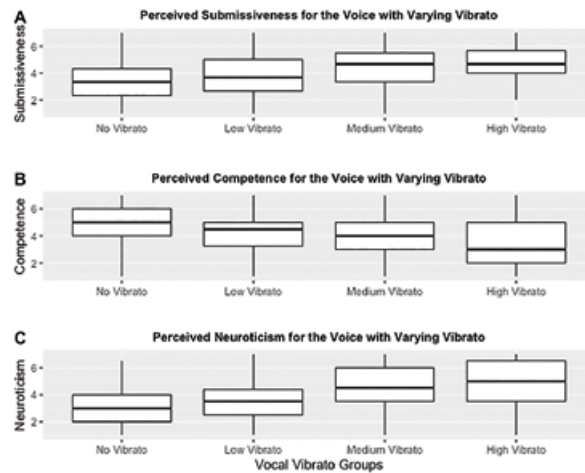
People around the globe frequently use AI-driven conversational agents (e.g., Amazon’s Alexa or Apple’s Siri) for personal and professional purposes. Consumers have a tendency to anthropomorphize these conversational agents, ascribing human attributes to them including emotions and fundamental personality traits. While human-to-human interaction research underscores the importance of vocal features on perceptions of power-related personality traits (e.g., dominance, competence, leadership styles), research on conversational AI has not progressed toward a more fundamental understanding of how subtle cues in the humanlike voice of an agent impact consumer perceptions of power. This study addresses this gap by systematically altering the vocal vibrato and the vocal tract length feature of conversational agents’ voices and measuring their impact on power attributions. Potential practical implications of the manipulation of the aforementioned vocal parameters are discussed.

**Fig. 1: Personality Perceptions for a Human-like Voice with Varying Vocal Vibrato**

Source: Own illustration.

In this study, a total of  $N = 379$  participants ( $M_{Age} = 31.69$ , 51.45% male) were randomly assigned to four conditions differing in the extent of vocal vibrato of a conversational agent's voice. We used the AWS Amazon Polly interface for speech formation (Amazon, 2020) and the PRAAT vocal toolkit as an established tool to manipulate the conversational agent's voice (Corrette, 2012). The vocal vibrato of the original voice was used as a baseline whereas in the three other groups the extent of vibrato was systematically increased such that all voice output was scaled up by one semitone each (from semitone = 2 to semitone = 4). We refer to the voice with semitone = 2 as "low vibrato", the semitone = 3 as "medium vibrato" and the semitone = 4 as "high vibrato". Participants were asked to listen to five randomly generated sentences with a duration of 2–4 seconds and were subsequently requested to answer questions about the perceptions they formed with regard to the conversational agent while listening to the voice.

The results of this study showed that voices with increased vocal vibrato were perceived as significantly more submissive ( $F(3,375) = 17.95$ ,  $p < .001$ ) (Fig. 1A), less competent ( $F(3,375) = 12.13$ ,  $p < .001$ ) (Fig. 1B), and greater in neuroticism (Chi square = 68.51,  $p < .01$ ,  $df = 3$ ) (Fig. 1C) compared to the baseline voice. In addition, people who listened to the conversational agents with the additional vocal vibrato reported feelings of high power towards them compared to the ones who listened to the original voice

**Fig. 2: Personality Perceptions for a Human-like Voice with Varying Vocal Tract Length**

Source: Own illustration.

( $F(3,375) = 4.36$ ,  $p < .01$ ), without any power manipulation from our side beforehand.

### Study 2 – Vocal Tract Length

Study 2 investigates how the manipulation of vocal tract length influences the perception of the following personality traits: leadership, dominance and strength of personality.

In this study, 243 participants ( $M_{Age} = 39.37$ , 56% male) were recruited from an online panel. A between-subjects design was used, randomly assigning participants to one out of five conditions that differed only in terms of the vocal tract length feature. The stimuli were created using the AWS Amazon Polly text-to-speech interface, a service that turns text into lifelike speech (Amazon, 2020). Specifically, the integrated synthesized male voice of "Matthew" was used and the vocal tract length (VTL) feature derived from the Speech Synthesis Markup Language (SSML) which is integrated in the Amazon Polly interface was systematically manipulated. Specifically, VTL was increased and decreased in steps of 10% to create two longer VTL conditions (+10%, +20%) and two shorter VTL conditions (–10%, –20%). Participants were asked to listen to five randomly generated sentences (the same as in the previous study) with a duration of 2–4 seconds and were subsequently requested to answer questions about the perceptions they

formed while listening to the voice regarding a number of different personality traits.

Significant differences in perceptions were found between the short vocal tract length conditions and the baseline. Both conditions with decreased vocal tract length (–10% and –20%) were perceived as having weaker leadership qualities (Chi square = 33.43,  $p < .001$ ,  $df = 4$ ) (Fig. 2A), a less strong personality (Chi square = 48.79,  $p < .001$ ,  $df = 4$ ) (Fig. 2B), and less dominant traits (Chi square = 36.85,  $p < .001$ ,  $df = 4$ ) (Fig. 2C) compared to the baseline voice. One of the conditions with increased vocal tract length (+20%) was perceived as a more dominant entity compared to the baseline (Chi square = 36.85,  $p < .001$ ,  $df = 4$ ) (Fig 2C).

### Discussion and Conclusions

With the rapid increase of conversational agents and their progressive usage for numerous applications in both domestic and professional contexts, there is no question that they will shape the way we work and interact in the future. Different conversational agents are designed to support different activities and assume different roles. Supporting healthcare professionals, providing financial advice, or promoting a product or brand in an advertising campaign are some examples of daily applications conversational agents are currently used for.

This study investigated the perceived power-related personality traits (leadership, dominance, etc.) of two different conversational agents by manipulating their vocal vibrato or the vocal tract length. The findings suggest two different ways of designing power-related personality traits of conversational agents by exclusively manipulating their voices. Furthermore, we break new ground regarding the question how pow-

er can influence the dynamics of human–conversational agent interaction by linking vocal parameters to certain power-related personality traits. Further research should investigate the exact transition points where people’s perceptions towards the personality of a conversational agent start changing.

### Managerial Applications

The subject of power in relationships between humans has been extensively investigated. Lately, there has been increasing interest regarding the role of power in interactions with conversational agents. For instance, people in a state of high power perceive interactions with anthropomorphic conversational agents as low-risk, whereas people in a state of low power perceive such interactions as high-risk (Kim & McGill, 2011). Additionally, power has been found to shape the interactions between consumers and conversational agents in a shopping paradigm (Tassiello et al., 2021). With the increasing availability and use of conversational agents, the concept of power could be of great importance in dyadic human–conversational agents relationships.

To leverage their full potential, managers should design conversational agents’ personalities according to the purpose they want to accomplish and the role they want to assign to the agent. Personality can be expressed effectively through vocal features; thus, managers should carefully examine the specific vocal characteristics of conversational agents. For instance, in scenarios where conversational agents assist people with their investment plans, or with navigation directions while driving, it would be preferable to utilize a voice that transmits a strong and competent personality that humans can trust; potentially a voice with a long vocal tract. On the other hand, in scenarios


### Main Propositions

1. Linking specific vocal features to certain personality traits allows us to design the desired traits and avoid the unwanted ones.
2. Conversational agents’ personality traits should be designed according to a company’s brand personality or the role they are intended to accomplish.
3. Further research on the design of conversational agents’ personalities based on vocal features is necessary.

### Lessons Learned

1. Conversational agents’ vocal vibrato and vocal tract length play a pivotal role in how they are perceived by humans in terms of power-related personality traits.
2. Conversational agents’ power-related personality traits can be engineered by voice manipulation.
3. Conversational agents should not be treated by managers as a “black box” but rather as a malleable entity that can be shaped according to their roles.

where conversational agents are getting utilized as medical assistants it would be preferable to use a caring and less dominant voice; potentially a voice with either a shorter vocal tract or additional vocal vibrato. Similar to conversational agents, products and brands also have personalities. Congruency between conversational agents' vocal features and product or brand

traits could be beneficial and might be used in advertising contexts as a cheap and fast way of promotion. Tailoring humanlike voices according to their role exploits the full potential of making conversational agents even more valuable and vital for companies. Further investigation is needed on what kinds of humanlike voices best match different roles. 

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# Online Lead Generation: An Emerging Industry

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In the emerging business of online lead generation, many conversational touchpoints have moved to the online space. These companies capture leads, sell them to partners, and often generate millions of revenue in the process. We abstract this novel digital business model in a framework, derive best practices and provide managerial recommendations.

**Simon Stolz, Kilian C. Wisskirchen, Prof. Dr. Christian Schlereth, Alexander Hoffmann**



**A**s digital devices become increasingly popular, the amount of digital touchpoints within the customer journey is gradually growing. The more expensive, complex, and individualized a product or service is, the more likely it is that consumers will actively investigate these products online and seek guidance in the purchase process (Nielsen, 2016). Whereas previously the purchase of a new kitchen started with a conversation with a sales agent in a brick-and-mortar kitchen store, touchpoints and interactions in the digital space are now replacing these conversations. Novel conversational commerce interfaces, like chatbots, increase this trend even further. However, reaching and engaging a customer online across all potential channels is a particular challenge for product and service providers, who typically lack the competencies to be present in every channel.

Online lead generation companies (OLGC) fill this gap. As intermediaries, they connect the customers with service or product providers. OLGCs generate their revenue by offering an assortment of products and services, serving as digital product shelves and supporting consumers in the purchase process (e.g., by providing price comparisons). OLGCs typically get reimbursed by manufacturers, retailers, or service providers for forwarding the leads. This way, a completely new digital industry has emerged. Examples of major industry players include price comparison services like the British GoCompare, American HomeAdvisor, or German Verivox and Check24. But more specialized offerings like Audibene (i.e., hear.com) for hearing aids or Enpal for solar modules are also estimated to make millions in revenue.

All these newly emerging OLGCs start their businesses from scratch.

Hence, our objective is to offer these players a reference and guideline for organizing their operations and identifying common best practices. Moreover, established brands are also increasingly pushing their direct online distribution (Arora et al., 2020), so that we want to present them with recommendations for optimizing their offerings. To this end, we conducted a qualitative interview study to derive a funnel framework of the lead generation process and identify best practices and recommendations along the funnel.

## Theoretical Background

### Online Lead Generation Companies

The term lead generation encompasses the “generation of information about prospective customers through targeting, prospecting, information dissemination, and persuasion” (Bannerjee & Bhardwaj, 2019). OLGCs specialize in the task of lead generation. One can think of the core business of OLGCs, metaphorically, as the activity of fishing: OLGCs capture online leads (the fish) through varying value propositions (the hinge and the bait). A common value proposition of OLGCs is a *personalized* overview of quotes (e.g., for a credit loan), which would take a long time to aggregate manually. Further, the example of credit loans highlights how OLGCs provide *transparency* (e.g., via comparing offers). Also, some OLGCs act as *reliable partners* in complex acquisitions (e.g., by orchestrating installations of kitchens) and offer *discretion* (e.g., in case of plastic surgery). In summary, the value propositions for consumers can differ substantially, depending on the vertical (i.e., the particular offering). This way, OLGCs provide an appealing cus-

### Simon Stolz

Ph.D. Candidate at the Department of Digital Marketing, WHU – Otto Beisheim School of Management, Vallendar, Germany  
simon.stolz@whu.edu

### Kilian C. Wisskirchen

Managing Director at Medihair – Acinsi UG, Bonn, Germany  
kilian.wisskirchen@medihair.com

### Prof. Dr. Christian Schlereth

holds the Chair of Digital Marketing at the WHU – Otto Beisheim School of Management, Vallendar, Germany  
christian.schlereth@whu.edu

### Alexander Hoffmann

Industry Manager & Data Strategy Lead, Google Germany GmbH, Munich, Germany  
alexhoffmann@google.com

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tomer source and thus revenue for product and service providers.

While research underpins the importance of lead management technology (Ohiomah et al., 2019), many established companies struggle to get a foothold in the e-commerce space. They report feeling unprepared for the task (Arora et al., 2020). At the same time, consumers increasingly use the online space for research (Verhoef et al., 2007). These trends make OLGs indispensable partners for established companies. For routing the leads to third parties, OLGs are commonly paid per lead or conversion and act as an intermediary platform. While scientific literature covers related topics (see Kannan & Li, 2017 for a review), the particular business model of OLGs has previously received little attention.

### Related Frameworks

By acting as intermediaries, OLGs inherently capture a major part of the sales process, commonly described by funnel frameworks that reflect a sequence of stages. With each stage, fewer customers convert to the next stage, generating a 'funnel'. The most popular model for segmenting the sequence of stages that a consumer traverses psychologically is the attention-interest-desire-action (AIDA) framework (Strong, 1925). Besides, the sales literature offers models to classify individual stages in the process. For example, Johnston and Marshall (2016) describe the sales process stages as prospecting customers, opening a relationship, qualifying prospects, presenting a sales message, and closing the sale. From a firm's perspective, Smith et al. (2006) model the lead generation activity along the sequence of milestones: phone call, sales visit appointment, and sales. Our paper devia-

tes from this classical offline perspective and proposes a model for online lead generation.

### Best Practices and Trends in Online Lead Generation

To capture user information, online forms provide an automated interface (Banerjee & Bhardwaj, 2019). In comparison to in-person sales conversations, they are less costly for companies to implement. An emerging trend is to use chatbots that dynamically respond to users within the scope of a pre-defined topic range. Compared to static input forms, chatbots evoke trust, which results in higher recommendation acceptance (Hildebrand & Bergner, 2020).

Another aspect is the timing of follow-up calls. Smith et al. (2006) find in offline settings that delays in responding to customer requests lead to fewer sales. Similarly, studies of online

businesses indicate that the conversion probability is 60 times higher if companies respond within an hour (Oldroyd et al., 2011). Hence, immediate follow-ups appear optimal to convert leads to sales. Practitioner reports suggest seven call attempts and short time gaps of one to two days between call attempts (XANT, 2019).

### Research Context and Methods

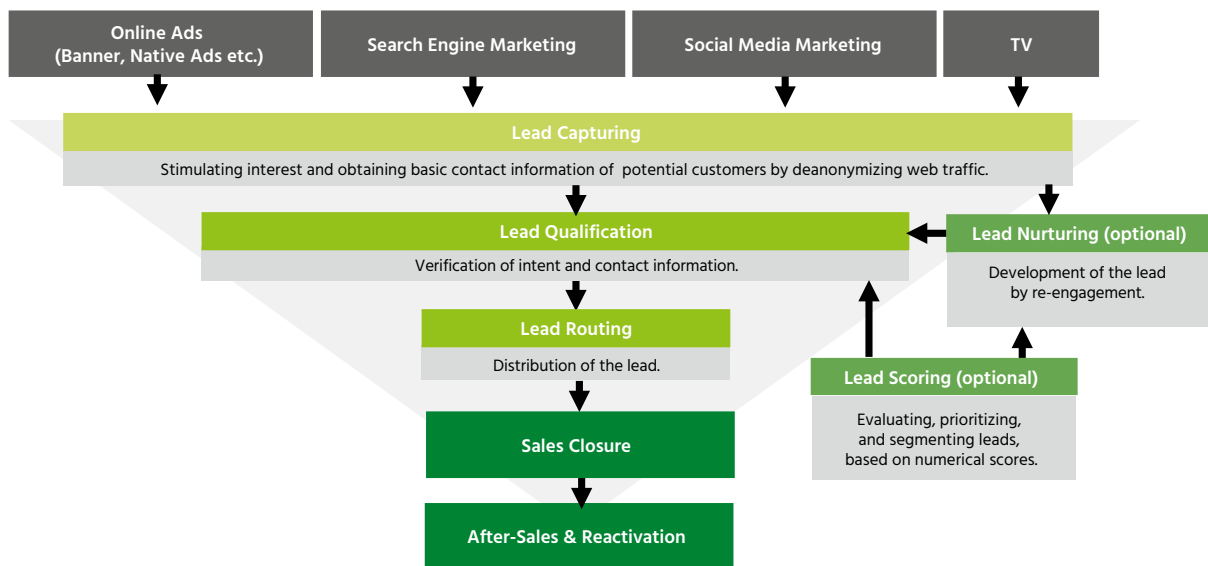
Expert interviews are especially appropriate for explorative research in novel fields that have not been researched extensively yet (Marschan-Piekkari & Welch, 2004). Thus, we conducted 19 semi-structured expert interviews with founders and managers from different OLGs and diverse verticals founded between 1991 and 2018. We captured a wide array of characteristics and OLG business models by conducting interviews in a wide range of industries, like real estate services, mobility services, financial services, and several more. Among the 19 interviewees were five founders. The rest of the interviewees works in high-level marketing and management positions. To protect the anonymity of our interviewees, we refrain from citing individual-level statistics.

Most of the analyzed firms have more than 200 employees (13 companies), generate more than EUR 35mio in revenue per year (10 companies) and were founded before 2017 (15 companies). Thus, most of these companies have a proven business model with a functioning lead management system. Even though the study does not cover the whole online lead management market, the selection of interview partners is exhaustive and covers the most important verticals.

The interviews (with an average duration of 32 minutes) were conducted

### Management Summary

As more and more consumers search for products and services online, online lead generation companies function as intermediaries and connect consumers with partner companies. Building on 19 practitioner interviews, we derive a framework and best practices. Also, established businesses can take inspiration from our findings and integrate conversational elements like multi-step forms into their website and initiate conversations by providing information as 'lead magnets'.

**Fig. 1: Online Lead Generation Funnel**

Source: Own illustration.

in German and recorded via the video conferencing software Zoom. The recordings were transcribed verbatim and coded with the qualitative research software MAXQDA to categorize the interviewees' statements (Mayring, 2010). Based on the number of mentions per code, we could identify best practices, quantify their importance and refine our online lead generation funnel structure. The interview guide consisted of four high-level questions touching the four dimensions lead generation, monetization, marketing, and industry specialties (i.e., How do you design the lead management process? How do you monetize your leads? What marketing channels do you use? What are the specifics of your industry that are important for OLGs?). Most of the questions of our semi-structured interviews were open-ended, allowing us to dynamically elicit additional valuable background information.

### Online Lead Generation Funnel

Building on prior literature and the insights of our interviews, we offer a high-level overview of the key stages in the OLG process. This practical online lead generation framework (shown in figure 1) serves to structure the subsequent best practices.

The starting point of the framework consists of marketing and advertising activities, which feed the lead generation funnel. Whereas in offline settings the marketing activities often directly result in a sales contact (Smith et al., 2006), in the online setting the users find their way to the OLG website. Through advertisements and organic links, users 'land' on the OLG's website. Hence, in contrast to traditional sales processes (Johnston & Marshall, 2016, pp. 44–50) that involve prospecting users (e.g., by knocking on customers' doors), in on-

line lead generation the users themselves make the first move via the OLG's website.

The stage of *lead capturing* has the two-fold objective of stimulating interest and obtaining visitors' basic contact information. The OLG website commonly provides both functions. It offers information on the product or service and creates trust by showing customer references, certification badges, and media coverage. Importantly, a user interface (e.g., a form) is prominently displayed on the website, enabling users to configure their specific settings and provide their contact data.

*Lead qualification* refers to determining whether a lead meets the purchase requirements (i.e., is a 'qualified lead'). In the online domain, this often involves verifying and assessing the collected information. Often, such verifications happen through automated

technical checks. Next to automated interfaces, in-person conversations verify the customer's intent via, e.g., phone calls, chats, and messengers.

Subsequently, leads may optionally enter the *lead nurturing* stage. This stage ignites and expands the interest of a potential lead, particularly in the case of high-value products or services. Lead nurturing targets users who already disclosed their contact information but remain in an ambiguous position in the middle of the funnel (Patterson, 2007). Through emails and especially in-person conversations, customers are re-engaged and developed towards a conversion.

*Lead scoring systems* often support the stages of *lead qualification* and *lead nurturing*. Lead scoring aims to quantify leads' potential and segment them based on behaviors and attributes (McGlaughlin et al., 2012). A lead scoring system also helps companies to prioritize leads and allocate their resources. Studies show that lead scoring can significantly increase revenue (Säuberlich et al., 2005).

If leads are qualified, they are assigned to sales agents to finalize the sale (*lead routing*). Among OLGCs, the strategies of lead routing vary—while some OLGC forward their leads exclusively to a single third-party provider, others forward the same lead to multiple ones. Some OLGCs capture the following closure of the sale themselves so that the lead routing only implicitly occurs on the OLGC website.

Lastly, reflecting the *sales closure* stage, an offer is drafted, and the sale is eventually closed. Moreover, *after-sales* activities aim to sell complementary services and products. More recently, some OLGCs realized the potential of *reactivating* successfully routed leads by following up after some time has elapsed.

## Findings

We derived various practical insights from our interviews based on the codings and structured keyword searches on our transcripts. We prioritized the most frequently mentioned topics along the conversational sales process presented in the online lead generation funnel (figure 1).

### Lead Capturing: Attracting Leads Through Information

An important aspect is which party initiates the sales conversations. Our interviewees highlight the need to incentivize users to disclose their personal information by offering desirable information. One common strategy is to provide related information pieces (e.g., rent index by postal code) on the main website as an incentive—i.e., a 'lead magnet'. Besides, six interviewees pointed to the practice of generating trust via additional websites. For

example, one interviewee reported that they "look at what kind of topics the users are interested in" and offer this content on 'satellite websites'. These satellite websites are typically branded differently and, at first glance, appear to provide an objective assessment (e.g., imitating a 'newspaper' article). However, small logos and the disclaimer section reveal the affiliation of the website to the OLGC. As our interviewees report, users browsing these websites often have a substantially higher conversion rate.

### Lead Capturing: The Power of Multi-Step Forms

The OLGC websites offer means to capture user preferences and personal details in substitution of the first steps of a sales conversation in a brick-and-mortar store. Most commonly, our interviewees emphasized multi-step forms as an essential lead capturing element. As one interviewee reported, similar to in-person sales conversations in a brick-and-mortar store, multi-step forms typically ask for simple preference questions related to their search (e.g., desired credit loan amount) first. Personal details, like phone numbers, are typically among the last questions.

Moreover, our interviewees noted the emerging technology of chatbots as a trend to automate conversations while still keeping a natural conversation flow. Three of them have tested chatbots. Some found inferior conversion performance compared to multi-step forms, one interviewee experienced decreases in cost. A key difference is that click-based interfaces provide a passive means of interaction (which have to be initiated by the user), whereas initiating a new conversation requires proactivity. In this regard, one

## Main Propositions

1. The online lead generation funnel consists of three stages: lead capturing, qualification, and routing.
2. Supportive, optional activities, such as lead nurturing and scoring, complement the stages.
3. Conversation timing must be evaluated and tuned to reflect cultural norms and relevant situations.
4. New technologies, like chatbots, are experimentally applied—yet multi-step forms still prevail.

interviewee experimented with chatbots that include click-based interfaces so that the technologies of multi-step forms and chatbots converge. In addition, one interviewee mentioned a mixed experience when using WhatsApp within the lead qualification process. On the one hand, the messaging service is less of a communication barrier than a phone call. On the other hand, integration into CRM systems and complying with the EU's General Data Protection Regulation (GDPR) is challenging.

### Lead Nurturing and Qualification: Prompt Responses Are Not Always The Best Option

While some interviewees report that they indeed try to follow the literature suggestions and initiate conversations with leads as promptly as possible, some found via experimental testing that a delayed response is favorable. One interviewee stated that an immediate response led potential leads to be “scared off in the sense that it generated the impression of ‘we are watching

you””. This observation may be specific to online businesses that enable almost immediate follow-ups, previously impossible in an offline setting. Another interviewee who works for an international company explained that a lead gets ‘cold’ much faster in the American than in the German market. Hence, country-specific characteristics may provide an alternative explanation for this finding. To illustrate this further, we contrast the average optimal call metrics reported in our study with those reported in a US best practice study in Table 1.

**Table 1: Comparison of Average Optimal Call Metrics Stated by the Participants and Best Practice Reports**

Metric	Lead Management Practices (Our study)	Best Practice Reports*
Response time	88 minutes	5 minutes
Number of attempts	4.8 attempts	7 attempts
Duration to last attempt	2 days	6–8 days
Time between attempts	1 day	1–2 days

\*Xant (2019). Source: Own illustration.

## Lessons Learned

1. Offer related information pieces and satellite websites to direct the attention to your business or service and encourage leads to make the first move.
2. In the first stage of capturing leads, utilize multi-step forms to reflect a sales conversation. The forms should ask about personal, sensitive details last.
3. When initiating in-person follow-up responses, assess the right timing through experimentation. A prompt response can often be favorable, yet in some situations, slower response is advisable.
4. Apply lead scoring based on the available data in an online setting to structure and prioritize leads. Data on operating systems can already provide valuable classifications.
5. Lead capturing is an excellent starting position to grow a business through additional lead generation stages. Ambitions to engage in after-sales activities should reflect the characteristics of the vertical—for durable products, after-sales is often not promising.

### Lead Scoring: Data-Rich Environments Enable Lead Scoring

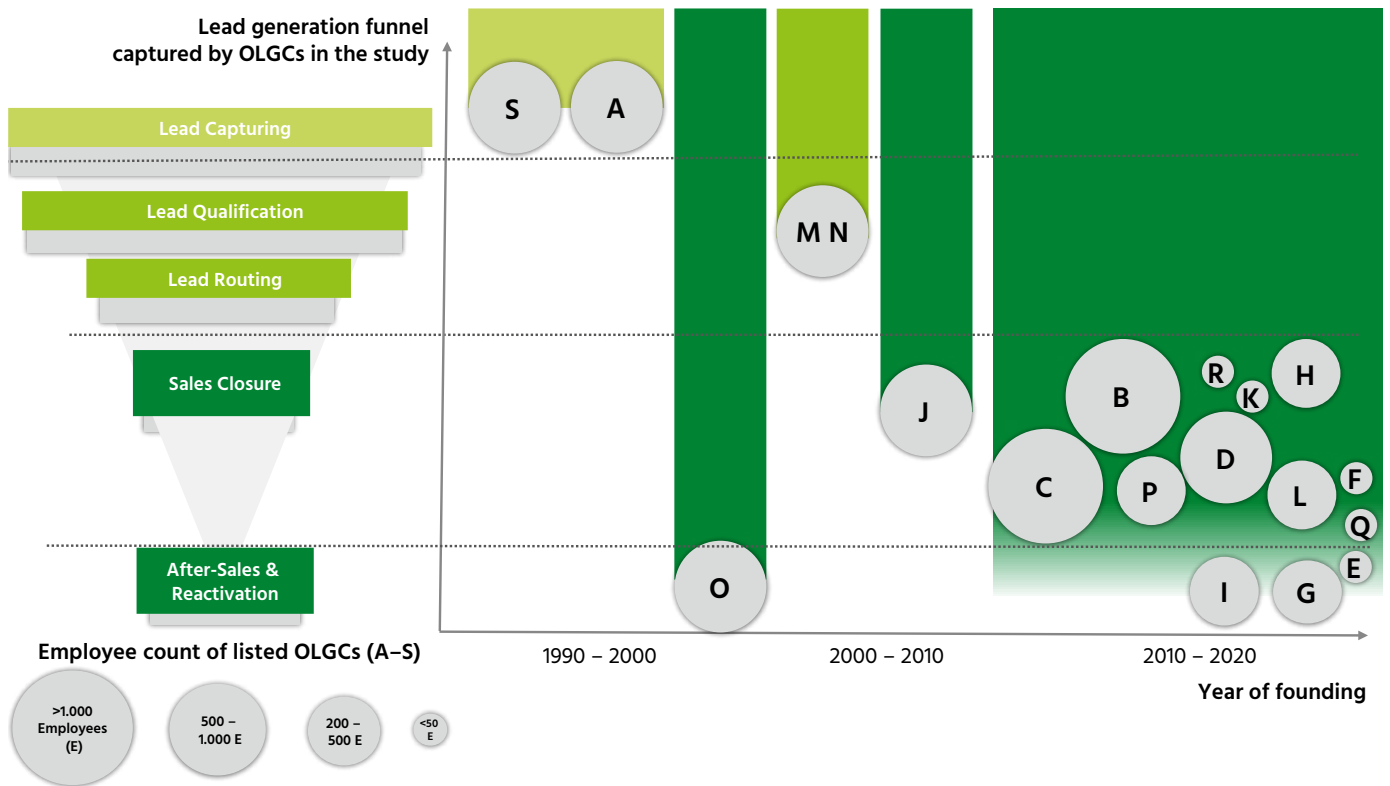
Not only does the customer enter their self-disclosed information, but additional information is available through technical browsing data. This enables data-driven lead scoring based on numerous attributes, previously impossible in the offline domain. As one of the interviewee explained: “*The variables for the lead scoring system are either provided intentionally by the user, e.g., postal code, or unintentionally, by their device. (...) An iPhone user is worth much more than an Android user.*” Overall, the interviews highlight that OLGs understand lead scoring as an important activity in their business model. Among our 19 interviewees, seven already had implemented a lead scoring system, and four reported wanting to implement it.

### Sales Closure and After-Sales: Trend Toward Business Model Expansion

Lastly, our interviews highlighted that the OLGs differ in their coverage of online lead generation funnel stages. Typically, OLGs cooperate with multiple partners that seek to offer their



**Fig. 2: Lead Combination Trend**



Source: Own illustration.

products or services. However, various OLGCs even handle the closure of the sale on their website. Some even capture after-sales activities. Often OLGCs start with a lean lead capturing approach and successively expand their activities from there. As one interviewee remarks, “we used to have a business model that was purely based on the capturing and forwarding of leads. (...) Today we fulfill those [authors’ note: related business] activities ourselves.” We visually explore the market segmentation along the online lead management funnel over the dimensions founding year, employee count, and captured funnel stages in figure 2. In our study, OLGCs founded

after 2010 offer the full online lead management funnel, whereas older OLGCs focus on the first stages. Only a few OLGCs capture after-sales stages. Especially for OLGCs that capture leads for durable and expensive products, there is only a single customer contact.

### Discussion and Suggestions for Further Research

OLGCs largely redefine the sales conversation process. Our study contributes to the marketing and sales literature by providing insights on the emerging business model with a first qualitative empirical study on this topic. We point

out differences in the online lead generation funnel compared to the classical sales process (Johnston & Marshall, 2016, pp. 44–50) and find that OLGCs have replaced large parts of the sales conversation with conversational commerce. Especially at the funnel’s beginning, OLGCs automate conversational touchpoints via their websites. In-person conversations start at a later stage in the sales process, if at all.

Beyond our contribution to research, we focused on identifying specific recommendations for practitioners (see ‘Lessons Learned’). We found that traditional conversational commerce techniques, especially online forms, are cur-

rently the most widely used tool to converse with leads. This is in line with prior descriptions of online lead generation (Banerjee & Bhardwaj, 2019). However, OLGs recognize chatbots as an evolving trend that fits their digital business model very well. Currently, OLGs are still testing and evaluating for which tasks best to utilize chatbots and how to reap the most benefits from them. Hence, while chatbots offer appealing advantages (Hildebrand & Bergner, 2020), they are still at an early adoption stage.

Further, our research challenges the common recommendation of immediate follow-ups (Smith et al., 2006), as interviewees report varying instances of delaying follow-ups to be optimal. In contrast to the companies in the sample of Oldroyd et al. (2011), the OLGs in our study have rigorous testing in their DNA. Therefore, we hypothesize that these differences may be due to cultural norms, as captured by the Hofstede cultural dimensions theory (e.g., Sorge & Hofstede, 1983). Moreover, the urgency of a product also appears as a key determinant of optimal response time, so that differences across verticals may exist.

We identify emerging trends within the OLG industry. One trend is the increased usage of user data to enable lead scoring, especially when prioritizing leads for further processing or to close the feedback loop with paid marketing channels (e.g., by relaying the value of leads to bidding algorithms). Further, we find a trend towards expanding OLGs over additional online lead generation funnel stages. Yet, as our interviewees reflected with regard to their strategic positioning, such an expansion may upset partners and increase the complexity of business operations.

Concluding, we encourage businesses seeking to extend their direct online sales to take note of the recom-

mendations listed above. We expect that they can also benefit from practices like providing related information as “lead magnets” and integrating multi-step forms into their online presence. Our study shows that—despite the various conversation automation possibilities of chatbots, messenger ser-

vices, and in-person conversations—the simple multi-step form and phone call combination appears the most popular. Hence, future research should investigate the adoption of these alternative conversational channels and how an environment of increasing data privacy is changing the game. 🚩

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# Smart Services and Customer Expectations

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Smart services offer the opportunity to permanently stay in touch with customers. The acceptance and adoption of these services depend on customers' individual characteristics and expectations regarding the service. This paper offers a practical categorization of consumers regarding their acceptance of and resistance to smart services in the automotive sector.

**Kenneth Hädecke, M. Sc.**

Over the last years the increasing influence of technologies on services (Bitner et al., 2010; Rust & Huang, 2014) has enabled major benefits to enhance the relationships with the customer (Paschou et al., 2018). During the last year, the COVID-19 pandemic has pushed the use of technologies such as mobile messaging and digital assistance more strongly than expected and has accelerated the digital revolution in different sectors such as banking (Yeates, 2020). This digital revolution is now paving the way for new service concepts such as smart services. Smart services offer the opportunity for real time interaction with and permanent connection to the customer.

The term smart service was first mentioned in the service literature by Allmendinger and Lombreglia (2005). Recent publications have clarified the concept of future services and defined and differentiated the major components (Hädecke & Zanger, 2019; Kabadayi et al., 2019). While Kabadayi et al. (2019) provided a first definition of smart services, there is no common understanding regarding the expectations of customers and their acceptance of smart service concepts. But the ability to fulfil expectations and to satisfy consumer needs is the basis for a successful implementation of smart services in everyday life.

### Aim of the Study

Therefore, the aim of this study was to explore the perceptions, attitudes and concerns of the customer towards smart services using smart car workshops as an example. Furthermore, this study should provide recommendations for action to the management and investigate the following research questions:

- What does the customer expect and which needs should be fulfilled by smart services in the automotive sector?
- What are the obstacles that might endanger the acceptance as well as the actual use of the service?
- Are there commonalities and differences between the customers and which consumer categories exist?

### Background

Against the backdrop of the growing importance of connectivity between products, users, manufacturers and other parties, recent publications have characterized the construct of smart services (Hädecke & Zanger, 2019;

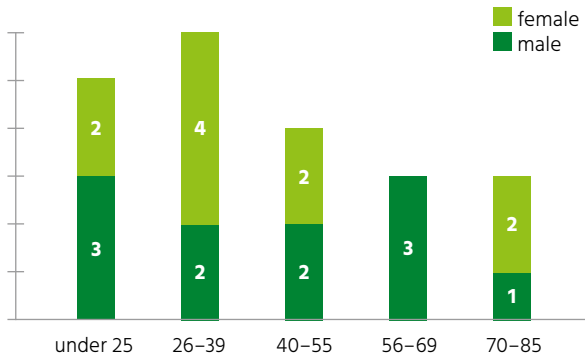
Kabadayi et al., 2019). Also, researchers have started to investigate the factors that influence the acceptance of and resistance to smart services and connected technologies such as self-tracking devices (Allmendinger & Lombreglia, 2005; Chouk & Mani, 2019; Huang, 2017; Paluch & Tuzovic, 2019). Kabadayi et al. (2019, p. 330) defined smart services as “... *personalized and pro-active services that are enabled by the integrated technology and intelligent use of data that can anticipate and fulfill customer needs at specific times and/or locations based on changing customer feedback and circumstances.*” In the literature, automotive services with a smart context have been defined as customer-driven services which are based on the connectivity of the product and the service provider (Hädecke & Zanger, 2019). Also, these services are automatic and integrated in the product (Hädecke & Zanger, 2019). Further publications found that ubiquitous mobility and self-image congruence diminish consumer resistance, while perceived security issues, perceived complexity, as well as perceived government supervision and general reluctance toward the Internet of Things reinforce consumer resistance to smart services (Chouk & Mani, 2019). Furthermore, assurance, transparency and controllability affect consumers’ perceptions of self-tracking technologies (Paluch & Tuzovic, 2019) which are included in a smart service construct with a connected car (Hädecke & Zanger, 2019). This leads to the assumption that assurance, transparency and controllability could also influence the perception of smart services which rely on trackable devices. Beyond that, research lists mainly non-technical barriers for smart services, such as negative service reputation, consumer concerns about losing control over their data or inadequate knowledge regarding customers’ needs (Klein et al., 2018).

All in all, there is no comprehensive understanding of the consumer’s perspective with regard to smart services

### Kenneth Hädecke, M. Sc.

Research Associate Professorship BWL  
II-Marketing and Retail Management  
Business Administration, Chemnitz  
University of Technology  
kenneth.haedecke@wirtschaft.tu-chemnitz.de  
www.tu-chemnitz.de

**Fig. 1: Age and Gender Distribution of the Study Participants**



Source: Own illustration.

although there has been a growing interest in new service concepts throughout different industry sectors. Consequently, we need to explore in depth what customers expect and what is keeping them from using smart services.

### Research Methodology

The setting of a smart car workshop was chosen as the research context. This sector was selected because there is a common understanding of car workshop services and it offers different possibilities regarding digitalization, automation and connectivity. We followed a two-stage research design. First, we conducted a focus group discussion (Morgan, 1997) with 11 car using consumers of different ages, levels of education and income. The recorded group discussion lasted 134 minutes and focused on the expectations and concerns regarding smart car workshop services. In a second step, interviews were used to explore the consumers' perceptions in more detail. We conducted semi-structured interviews (Silverman, 2006) that took place in April and May 2020. The interviews lasted from 20 to 56 minutes, with an average length of 32:13 minutes. After completing 21 interviews, a point of information saturation was reached and we could no longer expect to obtain new findings with further interviews (Strauss & Corbin, 1994).

The test subjects comprised eleven males and ten females, ranging from 19 to 82 years of age and living in 12 different states of Germany (see figure 1 for the age and gender distribution). All participants use cars regularly, even though four do not own a car. Also, the participants had dif-

ferent levels of education. All interviews as well as the focus group discussion were transcribed verbatim.

As this study is of an exploratory nature, a data-driven approach of coding, axial coding and selective coding according to the grounded theory (Strauss & Corbin, 1994) was used for analyzing the transcribed data. This approach requires a simultaneous process of gathering and analyzing data. We continually compared the data and theory throughout the whole process of collecting and analyzing (Strauss & Corbin, 1994). To organize the data, we set up provisional categories of statements that contain important beliefs. In summary, 1622 quotations from the transcripts of the interviews and focus group discussion were compared.

### Consumer Categories

The overall result indicates three major consumer categories with large differences in their expectations and reservations, plus two intermediate categories. The three major categories reflect the categories suggested by the diffusion of innovation theory (Rogers, 1962).

#### The Innovators

In our sample, the subjects in this group are mainly men. This is consistent with previous research showing that the intention to use new services is higher among men than women (Lee, 2011; Liébana-Cabanillas et al., 2014). The most unexpected fact regarding this group is the average age of 54.75 years, which is in contrast to previous research studies (Laukkanen, 2016).

Innovators believe that digital and smart products as well as services offer a great added value and increase their individual mobility. Prior studies have shown a significant and positive relationship between individual mobility and the perceived usefulness of smart services (Schierz et al., 2010). Also, previous research has confirmed a higher impact of perceived usefulness on the intention to use a service among men than among women (Liébana-Cabanillas et al., 2014). Subjects in this group expect the smart car workshop to collect the data of all components of their car and also to receive their GPS data. To know that the car gets traced and analyzed makes them feel secure. As a 72-year-old woman from Lower Saxony said: "If I have an accident, I want to receive help very quickly." This feeling of security resulting from being tracked is also known from the smart health sector (Knorre et al., 2020). All in all, the people in this group are not worried about their data. They would like to have an



app for an overview of all their data as well as to communicate with the workshop and pay for repairs, which reflects their strong relationship with the service provider. Also, they would like to receive information via the app regarding preventive maintenance. In addition, they hope that the permanent connection between the car and the workshop will provide an opportunity for virtual updates and remote maintenance, presenting an easy way to take care of their car. “If they could fix the car from a distance, this would save a lot of time for me”, said a 63-year-old man from Bavaria.

These results confirm those obtained in previous studies, which found that the simpler the handling of a service, the higher the usefulness perceived by men (Ha et al., 2007; Liébana-Cabanillas et al., 2014). Furthermore, they would prefer

The transparency of smart services will make the difference between keeping customer’s trust and loyalty or losing them.

to receive videos and have the opportunity to see damaged car components via augmented reality, which again reflects ease of use. Characteristically, these consumers do not care where the data are actually hosted and the dissemination of data to the manufacturer would be okay for them. All subjects in this group exhibited a strong relationship with and trust in the car

workshop and the manufacturer. That seems to be the reason for their low level of privacy concerns and their openness to smart services. Previous studies have shown a strong impact of privacy concerns on resistance to innovation (Mani & Chouk, 2017), which means the lower the level of privacy concerns, the lower the resistance to service innovation. Overall, these participants would like to have a long-term service contract with the workshop, because it reinforces their trust in the service provider.

### The Majority

Consumers of the second major category are more cautious towards the use of digital or smart services. In our sample, 66% of the participants belonging to this group are women. Data security is one of their main concerns and they want all data for these kinds of smart services to be hosted in their home country or at least in the European Union, otherwise they would not trust in the service. We also found that the lower the involvement and knowledge about cars and their service requirements, the lower the trust in the smart service and the provider. Previous research has stated that the influence of trust on the attitude is significantly stronger among women (Hasan, 2010; Liébana-Cabanillas et al., 2014) and increases their intention to use the service (Neil et al., 2009). In our case, less trust was the reason for caution with regard to the smart service. Due to trust and data security issues they expect total transparency regarding which data are collected, who has access to their data and which techniques are used to encrypt the data. Because of their lack of understanding of the

### Management Summary

Using a two-stage exploratory research, this paper aims to develop a practical categorization of consumers in relation to their acceptance of and resistance to smart services using the automotive sector as an example. The five categories (innovators, intermediate category I, majority, intermediate category II, and laggards) reflect the influence of demographic differences and disclose major concerns of the customers. The findings show many differences between the categories and give a first overview of customer expectations and the major obstacles to the adoption of smart services.

### Main Propositions

1. The acceptance and adoption of smart services depend on individual characteristics as well as expectations of the customers.
2. Customers expect a modular service system which they can customize according to their individual needs and concerns.
3. Perceived data security and privacy concerns are the main obstacles to the adoption of smart services.
4. The more complex the device or product, the greater the desire for the option of human support.

car and despite the digital character of these services, they prefer to interact with a human if they have questions or need support. This supports the results of prior studies, which found that the option of vendor advice increases trust (Obal & Kunz, 2013). Also, these consumers are used to having total control over their individual property and like to have the flexibility to choose whatever fits their needs best. “Trust exists if I can reject whatever I do not like”, explained a 33-year-old man from Schleswig-Holstein. All in all, this category of consumers is really cautious about their data and that is why they do not want their data to be collected indiscriminately.

### Intermediate Category I

Between these first two segments we can find consumers of an intermediate category. They are highly interested in the opportunities offered by smart services but they have more doubts than the innovators. They have strong reservations against handing over their GPS data and being tracked. Previous research shows that tracking constitutes a privacy risk for consumers (Becker et al., 2017; Malhotra et al., 2004). All subjects of this group stated that they would feel uncomfortable being monitored. As a 50-year-old Hessian man said about the GPS data: “This means that I would be transparent and [this] would disturb me.” They explained that videos and photos of the repair processes would give them a feeling of being in control and that would enhance their confidence and trust.

### Lessons Learned

1. Companies should find ways to make their services transparent and to be certificated by a neutral instance to eliminate the main obstacles to the adoption of smart services.
2. Smart services should have a modular design and give the customer the opportunity to choose from different options depending on their needs and concerns.
3. All data and customer information should be hosted on national servers to cover all data concerns of the different customer categories and enhance trust in the service.
4. To simplify the use of the service and the associated app, videos should be used to explain the service and the options available.

### The Laggards

The last major category of consumers is characterized by a complete rejection of digitalization and automation. In the case sample, these participants could see positive effects of smart services such as time savings and better long-term planning but did not trust in digital services (or products) of any kind. This group has the highest average age of 67.6 years, is characterized by traditional views and strong scepticism, which is confirmed by the literature (Rogers, 1962). They look for human interaction in every situation and prefer physically tangible objects instead of digitalized versions. An 80-year-old man from Saxony-Anhalt as well as a 62-year-old man from Lower Saxony said: “I want a paper invoice which I can file in my folder.” They are scared of data theft and do not want to hand over any data or knowledge about themselves.

### Intermediate Category II

A second intermediate category of consumers is located between the majority and the laggards. The participants belonging to this category prefer analog services but are open-minded enough to try out smart services if there are many positive reviews. Most unexpected is the average age of 25.8 years in this group, which is in contrast to previous research (Laukkanen, 2016). Before using new technologies, these participants search for information, descriptions and personal experiences of people they know to reduce privacy risks. Word-of-mouth has previously been observed as a factor for reducing privacy risks (Featherman et al., 2010). The subjects voiced concerns about being manipulated and becoming transparent. A 27-year-old participant from North Rhine-Westphalia declared: “... maybe they are going to manipulate my car so that I need to take it to the workshop more often.” This and other quotes from this group reflect their distrust of smart systems. At the same time, these participants cite many advantages of a smart service setting such as automatic date proposals, emergency GPS data transmission or cost transparency if the smart system generates a fixed package price for a repair. In summary, these consumers are very concerned about their privacy and scared of the risks of data collection.

### Consumer Expectations

All in all, the participants expect the smart car workshop service to be data-driven and automatized, except for the repair of physical car components. They prefer an automatic debit and the possibility to decide whether charges are made via



PayPal, SEPA debit, Klarna or other payment service providers such as Google Pay. Some of them would like to authorize the payment before the actual debit and – with the exception of the laggards –, they prefer digital payment. Most of the subjects expect faster services when using a smart system, which confirms the findings of previous research (Kabadayi et al., 2019). Furthermore, the subjects are interested in digital and automatic communication, with the possibility to contact service staff if they need further information, as has also been seen in prior studies (De Keyser et al., 2019). Almost all participants want the option of contacting the mechanic while a repair is carried out. Videos as well as the opportunity to see damaged components of the car via augmented reality could reduce human interaction with service staff. Also, remote maintenance captivates most of the test subjects and they expect to save money with this kind of service. Regarding the potential costs, most consumers anticipate no price changes or just minimally higher prices. Almost all participants would pay for extended services such as virtual updates if this leads to lower repair costs. They would also be willing to pay for express or overnight services. If there are positive incentives such as faster service or sensor repairs free of charge, many of the participants would enter into a service contract with monthly costs. In conclusion, many customer needs and expectations could be identified which can possibly inspire smart service settings.

### Obstacles to the Adoption of Smart Services


Except for the innovators and the intermediate category I, all consumers are concerned about data theft and about becoming transparent. These aspects of perceived security have also been explored by previous research (Chouk & Mani, 2019). Besides, many participants are afraid of untimely repairs and manipulations, which also confirms prior research (Margulis, 2003). Furthermore, it can be an obstacle if the service of the workshop forces the customer to use a specific app and does not offer any alternatives. Therefore, customers should be able to choose which organizations they will share personal information with and which components of the service or app are activated and used.

The last big challenge is the expected transparency of the service and of the system itself. Especially the option to decide who will have access to the data has also been considered in prior studies (Norberg et al., 2007; Poddar et al., 2009; White, 2004). Consumers want to know in detail where their data are hosted, which people have access to the data and especially which data are collected.

### Conclusion

Despite its preliminary character, the present study not only characterizes the different categories of consumers, their

expectations and worries but builds the foundation for further research. Based on the consumers' concerns, companies should find ways to present their services in a transparent way and to be certificated by a neutral instance to eliminate the obstacles to the adoption of smart services.

The COVID-19 pandemic is an accelerator for digitalization and companies should take advantage of the current attitude towards digital services to position themselves and their smart service solutions. 

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# Gamification 2.0

## How Activity Tracking Apps Provide Long-Term Motivation

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One in four consumers is insufficiently physically active, resulting in substantial health risks. Conventional activity tracking apps motivate consumers but can promote motivational crowding-out. Gamification can help overcome these challenges. This paper presents two case studies and introduces a new motivational framework for gamification.

**Annette Mönninghoff, M.A.**

**T**oday, one in four consumers is insufficiently physically active (World Health Organization, 2018), resulting in substantial health risks. Insufficient physical activity (PA) increases the risk of chronic illnesses such as diabetes, cardiovascular diseases, and cancer (Lee et al., 2012).

Activity tracking apps might help motivate consumers. Wearables and tracking apps have trended in recent years, with over 850 million sold to date (Statista, 2020). However, recent evidence has raised the question whether tracking apps can motivate consumers in the long term. A meta-analysis found no statistically significant effect of tracking apps on PA (Romeo et al., 2019). Surprisingly, when tracking apps were used for less than three months, they increased PA. However, in trials running for more than three months, no statistically significant increases were found (Romeo et al., 2019). In a series of experiments, Etkin (2016) found that wearable trackers promote motivational crowding-out and theorized that activity trackers serve as an extrinsic incentive: They increase activity performance but decrease intrinsic walking motivation. This crowding-out effect has also been documented in other fields (Deci et al., 1999). Finally, a 2014 survey showed that one in three consumers already stops using their activity tracker six months after purchase (Endeavour Partners, 2014).

Could gamifying activity tracking apps help prevent motivational crowding-out? This paper investigates how gamification promotes long-term motivation. Building on two case studies, it presents a *motivational framework for gamification* and makes various practical recommendations.

## Gamification and Motivation

Gamification has been defined as “the use of game design elements in non-game

contexts” (Deterding et al., 2011, p. 9). Central to gamification are game elements. While common in many games, such elements are not part of every game. No single game element creates gameful experiences. Only integrating multiple game elements establishes intrinsically motivating environments in non-game contexts (Deterding et al., 2011). Game elements have been manifoldly modelled, leading scholars to criticize the lack of conceptual consensus (Johnson et al., 2016). Reeves and Read (2009) laid the foundations for a gamification framework by publishing ten “ingredients” of great games that can be used in non-game contexts to create consumer engagement. Building on this publication, scholars have developed various concepts ranging from 7 to 19 game elements (Hamari et al., 2014; Johnson et al., 2016; Lister et al., 2014). Some research has proposed classifying game elements into subgroups (Schlager et al., 2017). Figure 1 summarizes existing conceptualizations.

### Impact of Gamification on Motivation

Understanding whether gamification might drive long-term behavior change toward a more active lifestyle requires exploring its impact on consumer motivation. Using game elements in non-game contexts (e.g., fitness tracking) potentially makes these products more enjoyable and engaging (Flatla et al., 2011). Playing games is fun and absorbing. It may create flow, i.e., being fully involved in and adequately challenged by an activity (Csikszentmihalyi, 2000; Mathwick & Rigdon, 2004).

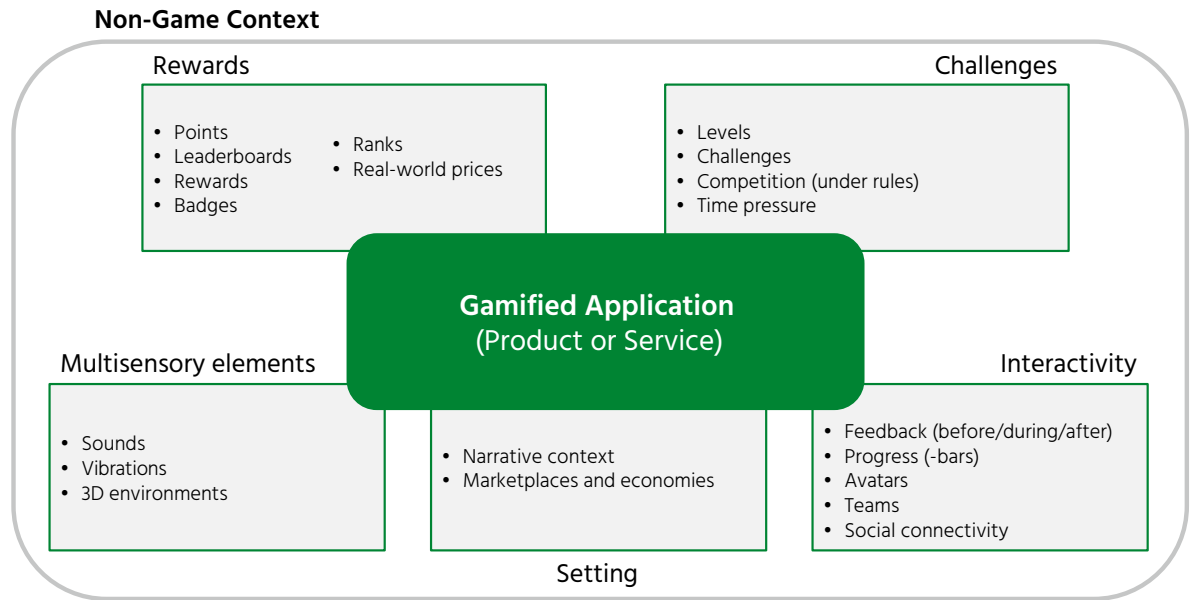
Scholars differentiate two types of activity motivation: Consumers may be motivated to perform an activity either for its own sake (i.e., intrinsic motivation) or for an ulterior end (i.e., extrinsic motivation; cf. goal system theory, Krug-

### Annette Mönninghoff, M.A.

PhD Candidate and Research Associate at the Institute for Mobility, University of St. Gallen, Switzerland

Annette.Moenninghoff@unisg.ch

**Fig. 1: Existing Conceptual Framework for Gamification**



Source: Own illustration based on Hamari et al. (2014); Johnson et al. (2016); Lister et al. (2014); Reeves & Read (2009); Schlager et al. (2017).

lanski et al., 2018). Gamification per se is associated with intrinsic motivation (Hamari et al., 2014). However, this approach falls short when multiple, very different game elements are employed in non-game contexts. Not all game elements promote intrinsic motivation. Some elements (e.g., rewards, points, and leaderboards) are extrinsic incentives and thus motivate users by providing ulterior consumption motives. Extrinsically motivating game elements do not gamify PA itself, instead, they gamify the means used to motivate PA and thus often occur after the activity has been performed. Other elements, however, have the potential to motivate intrinsically, by making the activity itself more enjoyable. Intrinsic activity motivation leads to more sustainable behavior change than extrinsically motivated behavior and is thus crucial in establishing long-term moti-

vation (Teixeira et al., 2012). Building on self-determination theory, the satisfaction of three basic psychological needs can help explain how gamification promotes intrinsic motivation (Ryan & Deci, 2017): first, *challenges* support users' striving for *competence*, which positively impacts intrinsic motivation. *Levels* within gamified applications help ensure that users are optimally challenged. Second, *avatars* enable customizing a virtual counterpart, while *3D environments* promote exploration, with both elements satisfying users' need for *autonomy* (Peng et al., 2012). Third, *social connectivity* may satisfy users' need for *relatedness* and, thus, their intrinsic motivation.

**Motivational Crowding-out**

Motivational crowding-out occurs when extrinsic incentives diminish in-

trinsic motivation over time (Etkin, 2016; Kruglanski et al., 1975). Extrinsically motivating game elements (e.g., points, leaderboards) may be perceived as controlling, thus diminishing users' sense of autonomy. Also, competition may negatively impact intrinsic motivation by reducing users' sense of competence if their performance is inferior to that of others (Ryan & Deci, 2017).

The context in which extrinsic incentives are employed moderates their impact on intrinsic motivation (Kruglanski et al., 1975). If incentives are perceived as integral (i.e., blend with the activity itself), they do not evoke motivational crowding-out. Within gamified activity tracking apps, points, leaderboards, and competition may be integral and hence prevent motivational crowding-out (Kruglanski et al., 1975; Schlager et al., 2017).

## Gamification in Activity Tracking Apps

Existing research shows that over half of all health and fitness apps are gamified (Lister et al., 2014). A review of 132 health and fitness apps revealed that social or peer pressure was the game element used most (45.2%), followed by digital rewards (24.1%), competition (18.4%), and leaderboards (14.2%; Lister et al., 2014). A more recent review of 19 digital interventions in the health and wellness domain identified rewards (84.2%), leaderboards (31.6%), and avatars (31.6%) as the most common game elements (Johnson et al., 2016).

These reviews reveal the broad variety of gamified tracking apps. There is no single way of gamifying trackers, merely countless possible combinations of game elements. The reviewers criticize the lack of theoretical grounding in how game elements are selected. They also highlight that the most commonly used elements tend to be extrinsic motivators. This is surprising given the original goal of gamification to harness the motivational power of games to intrinsically encourage long-term behavior change (Deterding et al., 2011).

Many studies have proven the short-term effectiveness of gamified applications in increasing PA (Hamari et al., 2014; Johnson et al., 2016; Thorsteinsen et al., 2014). However, the longer-term motivational impact of applications remains under-researched (Johnson et al., 2016; Schlager et al., 2017; Zuckerman & Gal-Oz, 2014). Some authors have questioned that gamification is motivating per se, claiming there is only “anecdotal evidence” for this effect (Schlager et al., 2017, p. 31). Others have found that gamified health applications often have

no or even negative effects on cognitive constructs such as motivation (Johnson et al., 2016). Scholars consider the mismatch between the most common game elements (i.e., rewards, leaderboards, avatars) and their motivational power the main reason why some studies report negative user reactions to gamified apps.

## Research Objectives and Methodology

The literature review revealed that most apps gamify post-activity feedback by employing extrinsically motivating game elements. However, existing research has evaluated apps as a single product without considering the various game elements used. Moreover, few studies have reviewed the

long-term motivational impact of gamified tracking apps. Addressing these research gaps, this study presents two cases and seeks to answer two research questions:

- (1) How can gamifying activity tracking apps motivate consumers in the long term?
- (2) Which game elements should be used to promote long-term behavior change toward more active lifestyles?

*Zombies, Run!* and *Jump Jump Froggy 2* were selected for case studies. Both apps use intrinsically motivating game elements, were created by developers with a scientific background in motivation theory, and received positive media coverage (Howard, 2016). The walkthrough method (Light et al., 2018) was used to develop the case studies. Telephone interviews with the app developers were conducted and relevant public documents (e.g., press releases, newspaper articles, websites) and consumer reviews (e.g., YouTube, App stores) were analyzed.

## Findings

### Case Study 1: *Zombies, Run!*

Launched in 2012, *Zombies, Run!* has become the world’s most popular gamified activity tracking app with more than 5 million downloads and 200,000 active users (Six to Start & Alderman, 2020). The app leverages several game elements and aims to motivate users to run or walk more. Unlike conventional gamified trackers, *Zombies, Run!* gamifies the run itself by leveraging intrinsically motivating game elements instead of focusing solely on post-run rewards. Its most important game ele-

## Management Summary

This article reviews gamification literature and presents two case studies on activity tracking apps to evaluate the motivational impact of gamification. It finds that most tracking apps gamify post-activity feedback with extrinsically motivating game elements (e.g., leaderboards, points, and rewards). The article presents a new motivational framework for gamification and concludes that the activity tracking process itself should be gamified (e.g., with narrative context, sound, levels and challenges) to motivate intrinsically and promote long-term motivation within inactive consumer groups.

ment is *narrative context*: Users assume the role of *Runner 5*, who has survived the zombie apocalypse. By running, users complete missions and receive important supplies which they can use after the run to build *Abel Township*, the last surviving town populated by humans. The storytelling uses audio (i.e., game element *sound*), so users need not look at the screen while running.

CEO Adrian Hon describes *Zombies, Run!* as a combination of game, tracking app, and audio storytelling that transforms the experience of running. Long-term motivation is created by a captivating narrative context that makes consumers immediately want to take up the next mission. The more users run, the more missions (i.e., game element *levels*) they get to complete, thus creating the optimal challenge. In the storytelling context, users randomly encounter zombies and are asked to speed up (i.e., game elements *time pressure* and *challenge*). The app supports users' sense of autonomy by offering various options: First, users can self-select how long their mission should be. The audio storytelling is then spaced across the run. Second, users can choose their music playlist or connect to music streaming services. The app also includes post-run *rewards*; these, however, are deeply integrated into the narrative, preventing motivational crowding-out. The rewards consist of supplies collected while running. After the run, users can use these supplies to develop *Abel Township*, a 3D environment on a separate tab of the tracking app (see figure 2). The app automatically tells consumers their average running pace and summarizes core statistics (pace, kilometers, steps). The app deliberately includes no competitive elements as the devel-

opers believe that leaderboards, direct competition, and ranks demotivate many users, particularly if they are not proficient runners. The app is designed to appeal to a broad audience: CEO Adrian Hon describes users as non-runners or occasional runners who would like to run more often than they currently do.

<p><i>If you are like me and you don't really care much for running or exercising in general, then <i>Zombies, Run!</i> is definitely for you. You come for the great story, stay for the endorphins!</i></p> <p>(Mack, app user)</p>
<p><i>I enjoy running, but it gets boring. Having the motivation to go on longer runs, to get out every day and run is hard. With <i>Zombies, Run!</i> I want to get out there and run. The story is so compelling that I need to get out there and find out what happens next.</i></p> <p>(C587, app user)</p>
<p><i>After a few months of bouncing around different workout styles I found this app and let me tell you it works wonders. As soon as I start to space out and get bored, the story comes on again and I'm able to focus on that and get excited for the next piece of the story.</i></p> <p>(Dogs_Luvr, app user)</p>
<p><i>This running app has gotten me through more tough runs and long weeks than I can tell you. I wanted a fun way to start back to running – and now I am fully hooked. [...] I am about a year in and still completely loving the app.</i></p> <p>(Yogi 2.0, app user)</p>

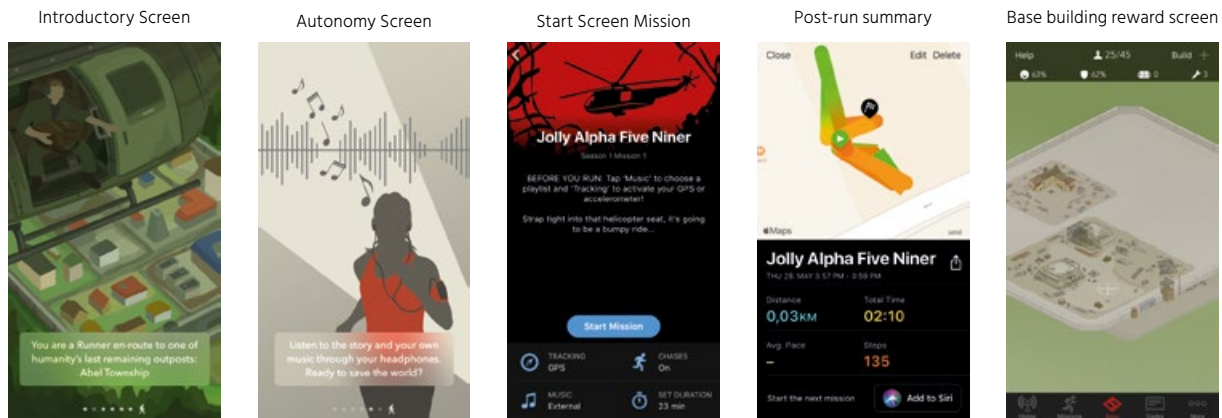
Evidence of the long-term motivational power of *Zombies, Run!* is manifold. A comparison of churn rates supports the long-term motivational power of *Zombies, Run!*: Over 50% of paying users stay with *Zombies, Run!* for more than a year, while research shows that regular activity tracking apps have a retention rate of just 6% 30 days after installment (Haslam, 2019). Also, over 200 missions have been taped since the launch, speaking to the need for ever new content for long-term users. Further, a randomized controlled trial confirmed that *Zombies, Run!* increases intrinsic motivation (Cowdery et al., 2015), consequently favoring long-term motivation.

### Case Study 2: *Jump Jump Froggy 2*

Launched in 2014, *Jump Jump Froggy 2* has been downloaded over 40,000 times. This app leverages multiple game elements and aims to motivate primary schoolchildren to be physically active. It was created by Timothy Charoenying, a cognitive scientist and software developer. A former teacher, he noticed that young children lacked opportunities to be active at school. His observation reflects the fact that, globally, 80% of kids do not meet the WHO's physical activity recommendations. Like *Zombies, Run!*, *Jump Jump Froggy 2* also gamifies the activity instead of using post-activity game elements. Kids choose from different activity options (sit-ups or jumping). Next, they select their virtual avatar (among different types of frogs). Then tracking begins, and the children are asked to jump up and down to catch flies, to do sit-ups to move a snake around the phone screen, or to jump up and turn their body to collect fruits



**Fig. 2: Zombies, Run! Overview**



Source: Six to Start & Alderman (2020), *Zombies, Run!* Version 8.72.

faster than an evil bee can catch them (i.e., game element *narrative context*). Fun music (i.e., game element *sound*) and an engaging comic-like 2D environment (figure 3) motivate the kids to perform the respective activity. To keep the app challenging, there are multiple game levels within each tracking option and task pace increases (i.e., game element *time pressure*). The app automatically recognizes movements through accelerometer data. Progress bars and points at the bottom of the screen inform the kids about their performance.

*I love that it gets my kids off the couch while still appealing to their love for video games (Sorrento76, app user)*

*Love watching my 7- and 10-year-old son and daughter choosing to do actual sit-ups and push-ups! So much better than just exercising their thumbs!" (HTC2011, app user)*

Positive consumer reviews, highlighting how much fun and how engaging *Jump Jump Froggy 2* is, attest to its intrinsic (long-term) activity motivation. Using the app in school contexts, Timothy Charoenying has observed high sustained student engagement. An analysis of consumer reviews also provides initial evidence for the long-term motivational power of the app. However, further quantita-

tive evidence is needed to confirm the app's lasting positive motivational impact.

### A Motivational Framework for Gamification

The case studies revealed the need for a more granular assessment of gamification. As the motivational impact of game elements varies, gamifica-

#### Main Propositions

1. Gamifying activity tracking apps potentially motivates consumers to adopt more active lifestyles.
2. Conventional gamified activity tracking apps mostly leverage extrinsically motivating game elements and focus on already active target groups.
3. To create long-term motivation and to reach moderately active consumer groups, fitness apps should gamify the tracking experience itself.
4. Assessing the various game elements employed and their motivational impact leads to a more differentiated evaluation of gamification.

tion should not be evaluated as a single, unified phenomenon but broken down into individual game elements. Some game elements, especially those that gamify an integral component of a service or product, motivate intrinsically by enhancing consumers' sense of competence, autonomy, or relatedness; other elements motivate extrinsically, by providing a gamified ulterior end that motivates consumption. Building on the existing conceptual framework of gamification (figure 1), this paper proposes a new *motivational framework for gamification* (figure 4).

The proposed framework distinguishes two types of game elements: those gamifying a core component of a product or service, and those that gamify an ulterior consumption motive. To promote long-term motivation, this novel framework suggests that tracking app developers should focus on gamifying the activity itself. In contrast, gamifying post-tracking feedback (i.e., ulterior motive to be active) provides only short-term performance increases and potential motivational crowding-out.

The two case studies powerfully illustrate how extrinsically motivating game elements can be employed with-

### Lessons Learned

1. Leading fitness apps should tap into the underserved but promising target group of insufficiently active consumers (>25% of the total population) by expanding their product offerings to include intrinsically motivating game elements such as narrative context, sound, and time pressure.
2. Future research should take a more granular perspective when evaluating gamified applications and quantitatively validate the proposed motivational framework for gamification.
3. Policymakers should leverage gamified fitness apps to address the growing physical activity crisis as such devices can potentially motivate long-term behavior change and reach large population groups.

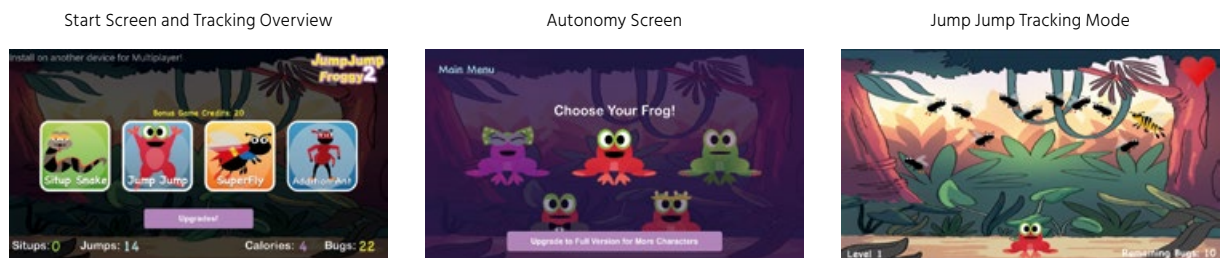
out diminishing intrinsic motivation. *Zombies, Run!* enables users to collect rewards while running. Instead of traditional rewards (e.g., points or badges), runners gather construction materials or food items to build Abel Township after the run. Rewards, then, are not just an extrinsic incentive, but are meaningful within the game context and integral to the game. Thus, the framework suggests using extrinsically motivating game elements only if they are employed for gamifying the consumption experience and are meaningful within the game context.

### Discussion

Prevalence of insufficient PA is high and involves substantial health risks. Recent evidence has called into question whether conventional activity tracking apps can motivate long-term behavior change and suggests that they may cause motivational crowding-out. Although gamification is believed to help overcome these challenges, evidence of its motivational long-term impact is limited.

Based on a literature review and two case studies, this paper proposes a

**Fig. 3: *Jump, Jump Froggy 2* Overview**



Source: Human Factored Design LLC, *Jump Jump Froggy 2* Version 2.12.

# Writing for Leaders

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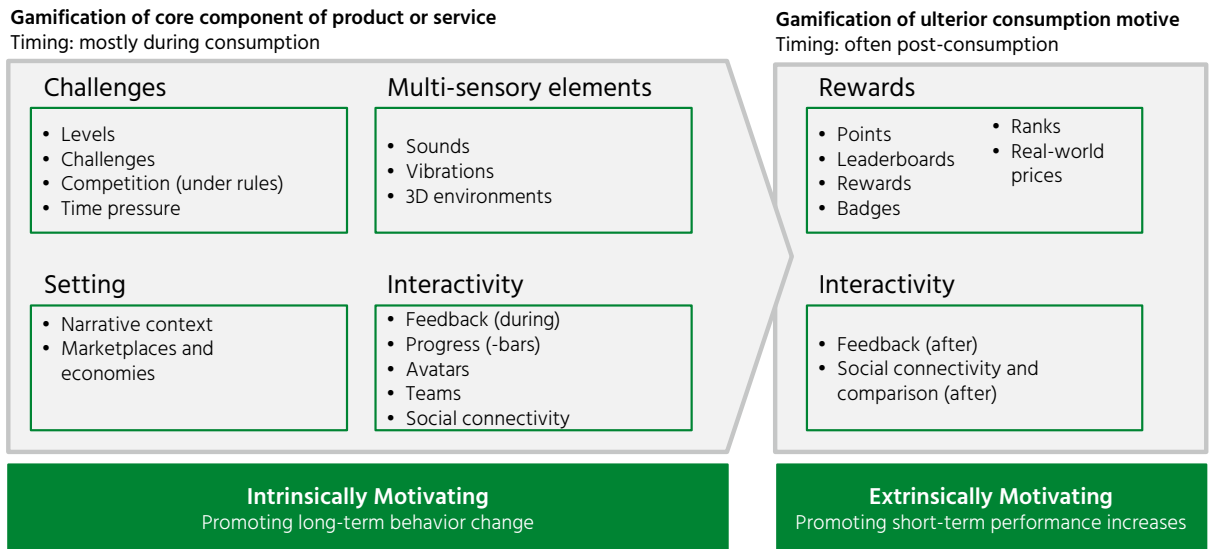


Kontakt

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MIM Marken Institut München GmbH  
Ridlerstraße 35a · D-80339 München  
+49 (0) 89 72959915 · [kirn@marke41.de](mailto:kirn@marke41.de)

**Fig. 4: Motivational Framework for Gamification**



Source: Own illustration based on case study analyses (Zombies, Run! and Jump Jump Froggy) and on Hamari et al., 2014; Johnson et al., 2016; Lister et al., 2014; Reeves & Read, 2009; Schlager et al., 2017.

*new motivational framework for gamification.* The framework provides guidance to app developers and public health officials on how best to gamify activity tracking apps to promote long-term motivation and behavior change. The framework suggests developers should focus on gamifying core components of the activity tracking process with intrinsically motivating game elements (e.g., sound, narrative context, and avatars). This marks a fundamental shift for leading tracking apps (e.g., Strava, Runtastic), which currently mostly rely on gamifying post-activity feedback with leaderboards, badges, and rewards.

However, consumers might react differently to gamified activity tracking apps. The case studies show that moderately active consumers require intrinsically motivating game elements to drive behavior change. In contrast, highly active consumers – as currently

targeted by Strava or Runtastic – possess high intrinsic motivation and thus might not require intrinsically motivating game elements. Thus, the findings provide initial evidence that companies might increase their consumer base by

Further research is needed to test the new conceptual framework given the limitations of this study. The framework was developed based on a literature review and the limited evidence of two case studies on innovative activity

Future research should focus on validating the framework with quantitative evidence to further evaluate the long-term motivational power of gamified activity tracking apps.

marketing intrinsically motivating gamified tracking solutions to moderately active consumers. The innovative fitness equipment company *Peloton* is an example of a firm which successfully markets to moderately active consumers by offering an intrinsically motivating, gamified bike.

tracking apps. The latter were developed for English-speaking, high-income countries, limiting the generalizability of the findings. Future research should focus on validating the framework with quantitative evidence to further evaluate the long-term motivational power of gamified activity tracking apps. 🚴

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# Strategie bei Ungewissheit: Ein integrierter Ansatz

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Ungewissheit begleitet nicht erst die Corona-Pandemie, sondern auch die digitale Transformation und den Klimawandel. Perspektiven bietet das Konzept der Integrierten Unternehmensführung: Zur Agilität gehören nicht nur Dynamik, sondern auch Stabilität. Traditionelle, agile und hybride Vorgehensweisen schließen sich nicht aus.

**Prof. Dr. Hans-Erich Müller**

Ist Ungewissheit die neue Normalität? Das Corona-Virus hat eine weltweite humanitäre und wirtschaftliche Krise hervorgebracht, die in diesem Ausmass nicht vorhergesehen wurde. Ungewissheit besteht auch darin, ob und wie der nächste Normalzustand wieder erreicht werden kann. Die Beschleunigung der digitalen Transformation ist die naheliegende Folge. Diese hatte bereits zuvor einen Hype um agiles Marketing und Management als Antwort auf mehr Unsicherheit ausgelöst. Zwar mögen überzogene Erwartungen eine Form sein, in der sich Neues durchsetzt, aber inzwischen dürfte die Sicht klarer sein. Sowohl die traditionelle Planung als auch agile Vorgehensweisen haben ihre Berechtigung, es kommt auf den Kontext an, in denen sie wirksam sind.

Strategische Planung wird durch mehr Unsicherheit und die Verbreitung agiler Methoden nicht obsolet, im Gegenteil: „Eine intelligente Synthese aus strategischer und agiler Unternehmens- und Marketingplanung ist anzustreben.“ (Meffert et al., 2019, S. 302) Als Beitrag zu diesem Programm werden im Folgenden zunächst einige agile Denkweisen und Methoden umrissen. Dabei zeigt sich, dass Effectuation im Gegensatz zur kausalen Handlungslogik nur *ein* Ansatz für Marketing unter Unsicherheit ist. Ähnlich, aber weiterführender sind die Strategieperspektiven „rationale Planung versus schrittweise Entstehung“. Für die Entscheidungspraxis unter Unsicherheit ist das Cynefin-Framework nützlich. Das zeigt sich auch beim Projektmanagement. Hybrides Projektmanagement und eine Verständigung darüber, dass zur agilen Organisation nicht nur Dynamik, sondern auch Stabilität gehören, eröffnen Perspektiven.

„Marketing war noch niemals so komplex“, meinen Rodríguez-Vilá et al. (2020, S. 106) und empfehlen einen Check-up mit 72 aktuellen Marketinginstrumenten und -fähigkeiten. Zuvor sollte jedoch die Strategie bei Ungewissheit im Fokus stehen, um herkömmliche Denk- und Vorgehensweisen grundlegend zu überprüfen.

### Agile Methoden: Möglichkeiten und Grenzen

Agile Denkweisen und Managementmethoden, die im Kontext der digitalen Transformation populär geworden sind, setzen im Gegensatz zum herkömmlichen Planungsdenken mehr auf experimentelle, iterative und intuitive Vorgehensweisen. Dazu gehören u.a.:

- Effectuation bedeutet auf der Grundlage der eigenen Mittel zu handeln, das Risiko gering zu halten und Umstände und Zufälle bei leistbarem Verlust geschickt auszunutzen. So wie man beispielsweise ein Gericht nicht nur geplant nach

dem Kochbuch, sondern intuitiv danach kreieren kann, was der Kühlschrank hergibt.

- Scrum entstand in der Softwareentwicklung: Menschen vor Prozessen und Werkzeugen, auf Wandel antworten, anstatt einem Plan zu folgen, funktionierende Prototypen, anstatt exzessiver Dokumentation und schließlich Zusammenarbeit mit dem Kunden vor rigiden Verträgen.
- Beim Lean Start-up tritt man direkt mit den potenziellen Kunden in Kontakt, erstellt minimalistische Prototypen und entwickelt so Schritt für Schritt ein marktfähiges Endprodukt („Fail fast, fail cheap“).
- Design-Thinking wendet Methoden von Produkt-Designern und Architekten im breiteren Kontext der Wirtschaft und Gesellschaft an, beispielsweise zur Geschäftsmodell-Innovation.

Allerdings kommt es auf die Bedingungen an, unter denen agile Methoden geeignet sind. Iterative Zyklen machen keinen Sinn, wenn beispielsweise Tests vorab nicht möglich und Fehler katastrophal sind (Rigby et al., 2016). In der physischen Produktion, bei der Entwicklung einer neuen Maschine, eines neuen Lebensmittels oder neuen Polymers lassen sich schnelle Feedback-Schleifen und Sprints nicht so gut anwenden (Cooper, 2014). Es ist ähnlich wie bei der interaktiven Wertschöpfung, bei Crowdsourcing oder Open Innovation, bei der es u.a. auf die Zerlegbarkeit der Teilaufgaben (Granularität und Modularität) ankommt (Reichwald & Piller, 2009). Spannungen, die sich aus der Koexistenz von planerischen und agilen Methoden ergeben (Laux & Kranz, 2019) lassen sich leichter lösen, wenn deren Wirksamkeit im jeweiligen Kontext geklärt wird.

### Prof. Dr. Hans-Erich Müller

Professor für Unternehmensführung, Hochschule für Wirtschaft und Recht Berlin  
hem@hemueller.de

Von diesen Einschränkungen abgesehen, können agile Methoden bei Ungewissheit ihre Stärken ausspielen. Die dominierende Perspektive ist hier die der schrittweisen Entstehung und nicht die der vorausschauenden Planung für neue Produkte, Dienstleistungen, Märkte, Geschäftsmodelle und Verfahren. Das ist das Feld der Entrepreneurship-Forschung, aus der der bereits genannte Effectuation-Ansatz stammt. Im Gegensatz zur traditionellen, kausalen Managementlogik „Ziele festlegen, planen, umsetzen“, versucht dieser nicht die Zukunft durch Analysen und Prognosen vorherzusagen, sondern steuernd zu beeinflussen. Bestätigt wurde dies in einer Studie zu „Marketing Under Uncertainty“: Erfahrene Entrepreneurreure „are skeptical of market research“ und ersetzen dieses durch „cocreational or partnership strategies“ mit Stakeholdern, wozu auch die Kunden gehören (Read et al., 2009, S. 14f.). Auf der anderen Seite hatte die Vergleichsgruppe in der Studie, Manager in etablierten Unternehmen, mit traditionellem Market-Research keine Probleme. Entrepreneurial Marketing (Effectuation) kann deshalb im Gegensatz zum traditionellen Marketing (Causation) als Marketing unter Unsicherheit, auch im etablierten Unternehmen, verstanden werden (Mauer & Grichnik, 2011). Was als wirksam angesehen wird, hängt vom Kontext ab. Ähnlich, aber allgemeiner zeigt sich dies bei den Themen Strategie und Organisation.

### **Strategie: Planung versus schrittweise Entstehung**

Komplexität und Dynamik des Wandels und damit die Unsicherheit nehmen zu, aber spielen Intention und Planung dadurch keine Rolle mehr? Eine Lösung bietet das Konzept der Integrierten Unternehmensführung. Bereits seit Jahrzehnten wird die Notwendigkeit eines Paradigmenwechsels im Management festgestellt. Knut Bleicher, Mitbegründer des St. Galler Modells, hat dazu das „Konzept Integriertes Management“ entwickelt (Bleicher & Abegglen, 2017). Henry Mintzberg (1975) hatte ermittelt, dass das tatsächliche Verhalten von Managern mit den ihnen zugeschriebenen Soll-Aufgaben der Planungsschule kaum übereinstimmt. Strategiebildung ist ein komplexer, sozialer Prozess und das „Zuerst Denken“ der kausalen Logik nicht die ganze Wahrheit. Strategien entstehen auch schrittweise ungeplant durch ein „Zuerst Sehen“, durch Ideen und ein „Zuerst Handeln“ durch Erfahrungen. Strategisches Lernen beruht also sowohl auf absichtsvollem, planmäßigem Denken und Handeln als auch auf einem unbewussten Prozess. Auch Daniel Kahneman (2011) argumentiert, dass Menschen sich selbst als rationale Wesen sehen, tatsächlich aber oft vom schnellen, intuitiven und nahezu

unkontrollierten Denken und Entscheiden beherrscht werden. Beide Perspektiven sind relevant. Man muss wissen, wo man der Intuition trauen kann und wo nicht und wie man die Vorteile des langsamen, überlegten Denkens nutzen kann.

Die strategische Spannung bei der Strategiebildung besteht also zwischen Intention und Emergenz; die entsprechenden Perspektiven sind Planung versus schrittweise Entstehung. Spannungen dieser Art sind typisch für die Strategielehre, sie werden auch als strategische Paradoxien bezeichnet (De Wit, 2020; Müller & Wrobel, 2021). In *The Opposable Mind* spielt Martin (2007), bis heute in der

Zur wirksamen Führung gehören multiple Ansätze, die zum jeweiligen Kontext des Systems passen.

Thinkers50-Rangliste auf den ersten Plätzen, auf den gegenüberstehenden Daumen an. Menschen und die meisten Primaten nutzen diesen, um eine Spannung gegenüber den Fingern zu erzeugen, um Objekte greifen und manipulieren zu können. Ähnlich können Spannungen zwischen Ideen genutzt werden, um neue Antworten für schwierige Probleme zu entwickeln. Traditionell werden die Vor- und Nachteile der vermuteten Alternativen geprüft, um dann alle bis auf eine zu verwerfen. Wirklich erfolgreiche Führungspersönlichkeiten trafen dagegen keine Entweder-oder-Entscheidungen, sondern führen integrativ. Sie suchen nach Faktoren, die nicht offenkundig sind, betrachten vielfältige Ursache-Wirkungs-Beziehungen, behalten das Ganze im Auge und sind in der Lage, kreative Lösungen für Spannungen zwischen entgegengesetzten Ideen zu finden. Integratives Denken ist nach Martin die Fähigkeit, zwei diametral entgegengesetzte Ideen im Kopf zu behalten, um dann eine Synthese zu entwickeln, die beiden Ideen überlegen ist. Integrierte Führung ist mehr als nur ein weiterer Führungsstil.

### **Entscheidungen unter Ungewissheit**

In einem dynamischen und komplexen Umfeld kann der traditionelle strategische Planungsprozess geradezu gefährlich sein, wenn die Unsicherheit unterschätzt wird. Die Gefahr liegt darin, dass entweder unter dem Druck, die geplante Wertsteigerung zu berechnen, die Unsicherheit über die Zukunft unter den Teppich gekehrt wird, oder aber, dass Chancen, die ein

höherer Grad an Unsicherheit bietet, übersehen werden. In Anlehnung an die klassische Abgrenzung von Knight (1921) zwischen known, unknown und unknowable hat Courtney (2003) ein Bezugssystem entwickelt, in dem Ungewissheit der Bereich der Unsicherheit ist, in dem Wahrscheinlichkeiten nicht mehr berechenbar sind. In einem komplexen und chaotischen Kontext des Systems sind die Ursache-Wirkungs-Beziehungen instabil. Im Extremfall sind die möglichen zukünftigen Ergebnisse unbekannt und unerkennbar – so wie ein schwarzer Schwan nicht vorherzusehen war, bevor Australien entdeckt wurde. Beispiele dafür sind ein tiefgreifender technologischer Fortschritt, ökonomische, soziale und pandemische Krisen und sich gerade erst bildende Märkte. Neuartige Risiken erfordern ein zentrales Krisenreaktionsteam, agile Methoden oder die Krisenreaktion vor Ort (Kaplan et al. 2021).

Zur wirksamen Führung gehören daher multiple Ansätze, die zum jeweiligen Kontext des Systems passen. Ein Beitrag dazu ist das Cynefin-Framework von Snowden und Boone (2007), das auch für Marketingentscheidungen richtungsweisend ist (vgl. Abb. 1). Bei einem einfachen Zusammenhang ist eine beste Praxis verfügbar. Komplizierte Zusammenhänge sind das Gebiet der Experten; ein Ferrari ist zwar kompliziert, kann aber von einem geschickten Mechatroniker repariert werden. Anders ist das in einem komplexen Kontext, der Domäne der Emergenz, wie im brasilianischen Regenwald. Hier entsteht die Praxis agil durch Ausprobieren, Erkennen und Reagieren. In einem chaotischen Umfeld schließlich kommt es darauf an, schnell zu handeln, in der Hoffnung, dass es eine Lösung gibt. Nicht zu vergessen ist das fünfte Disorder-Kontext, bei dem unklar ist, bei dem die Zuordnung unklar ist und verschiedene Perspektiven um Aufmerksam-

**Abb. 1: Das Cynefin-Framework für Entscheidungen**



\*) Nicht zugeordnet. Quelle: nach Snowden/Boone 2007, S. 72.

keit drängeln. Kontextübergreifende Führung erfordert Offenheit für den Wandel auch auf individueller Ebene: „Kompetente Führungskräfte wissen nicht nur jederzeit den Kontext zu identifizieren, in dem sie tätig sind, sie können auch ihr Verhalten entsprechend abstimmen.“ (Ebd., S. 75).

**Organisation: Projekte und Teams**

Bei disruptivem Wandel, wie den Auswirkungen der digitalen Transformation, des Klimawandels und der Corona-Pandemie, steigen die Komplexität und Dynamik und damit die

**Zusammenfassung**

Digitalisierung, Klimawandel und Corona-Pandemie: Mit der Komplexität und Dynamik des Wandels wächst die Unsicherheit über die zukünftige Entwicklung. Für Marketing bei Ungewissheit bieten agile Methoden einen Lösungsansatz. Strategien der schrittweisen Entstehung gewinnen an Bedeutung, lösen Planung und Marktforschung aber nicht ab. Das Beispiel Projektmanagement lehrt: Ein situativ angepasster Mix zwischen traditionellen, agilen und hybriden Vorgehensweisen ist erfolversprechend. Eine Kombination aus Planung und adaptivem Lernen ist ein Weg.

**Kernthesen**

1. Agiles Marketing bieten einen Lösungsansatz für kreative Entscheidungen bei Ungewissheit.
2. Die Stärken der traditionellen strategischen Marketingplanung bestehen bei geringerer Unsicherheit.
3. Nicht Planung oder schrittweise Entstehung, sondern die Integration beider Perspektiven ist erfolversprechend.
4. Planmässiges Lernen: Modernes Risiko- und Projektmanagement zeigen, wie es geht.

## Handlungsempfehlungen

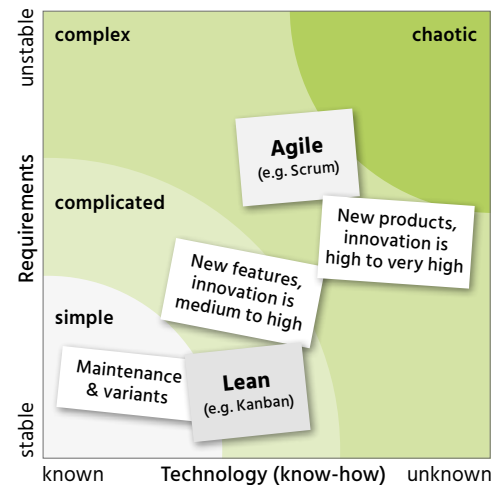
Ruhe bewahren bei überzogenen Erwartungen, etwa durch agiles Marketing, aber auch keine Vogel-Strauß-Strategie verfolgen. Planmässiges Lernen entwickeln bei steigender Komplexität und Dynamik durch Digitalisierung, Klimawandel und Pandemie. Neuartige Risiken erfordern ein zentrales Krisenreaktionsteam, agile Methoden oder die Krisenreaktion vor Ort. Also den Kontext identifizieren und das Verhalten anpassen. Dazu etwa das Cynefin-Rahmenwerk für Entscheidungen im jeweiligen Kontext anwenden. Die vielgenannte „Best Practice“ ist im einfachen, nicht aber im komplexen Zusammenhang zielführend, in dem niemand die Lösung weiß und die Praxis agil durch Ausprobieren, Erkennen und Reagieren entsteht. Keine Einheitslösung also, sondern eine Palette von Strategiemustern und Organisationsformen entwickeln.

Unsicherheit über die zukünftige Entwicklung. Agile Methoden werden dadurch begünstigt, ersetzen aber nicht notwendig eine planbasierte Vorgehensweise. Mehr Verantwortung in funktionsübergreifenden Teams (Stichwort Holakratie) löst die Hierarchie nicht ab und ist nicht überall anwendbar.

Zum modernen Projektmanagement gehören traditionelle, agile und hybride Vorgehensweisen mit vielfach fließenden Übergängen (Timinger, 2017). Beim traditionellen Stage-Gate-Modell der Produktentwicklung wird der Entwicklungsprozess des Produkts von der Idee bis zur Marktreife planmäßig in Abschnitte unterteilt, an deren Ende jeweils Meilensteine stehen, die zu Go-Kill-Entscheidungen führen. Dieses Modell wird inzwischen von seinem Erfinder selbst revidiert. Im Next-Generation of Idea-to-Launch-Modell bewegen sich die Projekte von Meilenstein zu Meilenstein „und das sich entwickelnde Produkt wird in einer Serie von Bauen-Testen-Revidieren-Iterationen regelmäßig Kundenanforderungen ausgesetzt“. (Cooper, 2014, S. 28) Die herkömmliche planbasierte Vorgehensweise wird durch agile Methoden erweitert. Dabei kommt es auf die Bedingungen an, insbesondere auf den Grad der Unsicherheit, wie das Modell ausgestaltet wird.

Hybrides Projektmanagement gilt als State of the Art. Nach Wohlfahrt und Köder (2018/2020) versteht die Bosch-Gruppe darunter, dass je nach Kontext und Unsicherheit ein projektspezifisches Optimum gesucht wird – planbasiert,

**Abb. 2: Hybrides Projektmanagement bei Bosch**



Quelle: Wohlfahrt & Köder (2018/2020).

wenn die Anforderungen und Lösungsansätze bekannt sind; lean, wenn es um Effizienz geht, und agil, wenn Anforderungen und Lösungsansätze weitgehend unbekannt sind (Abb. 2). Das Cynefin-Rahmenwerk steht dabei Pate.

Warum fällt es etablierten Unternehmen so schwer agiler zu werden? Ein Grund dafür ist ein falscher Gegensatz: Entweder schnell und flexibel wie Start-ups zu werden, oder aber in den fixierten Strukturen und Prozessen von etablierten Unternehmen zu verharren. Tatsächlich sollten wirklich agile Organisationen paradoxerweise lernen, sowohl stabil (belastbar, zuverlässig und effizient) als auch dynamisch (schnell, beweglich und anpassungsfähig) zu werden. In der Managementliteratur und von Beratern wird oftmals nur die eine Seite der Gleichung betont: schneller und flexibler. Nach Untersuchungen von McKinsey kombinieren die erfolgreichsten Unternehmen Dynamik und Stabilität in der agilen Organisation. Damit werden die Nachteile des fragilen Start-up-Modells und der schwerfälligen Bürokratie überwunden (Ahlbäck et al., 2017). Das integrierte Führungskonzept wird eindrucksvoll in der Praxis bestätigt.


## Ausblick

Der Gegensatz von Emergenz und Intention, von schrittweiser Entstehung und rationaler Planung speist schon lange



akademische Kontroversen. Heute wird dieses Spannungsverhältnis erneut zum Schlüsselthema, vor allem in der Praxis. Internet-Start-ups verzichten auf einen Businessplan und setzen auf agile Methoden. Neue Geschäftsmodelle werden nicht mehr top-down geplant, sondern entstehen durch agiles Design-Thinking. Teams führen sich selbst, sollen die Bürokratie ablösen. Aber kann auf rationale Planung und hierarchische Führung verzichtet werden? Revolutionen neigen zu Übertreibungen. Die Kunst der Führung besteht darin zu vermeiden, sich für die beste verfügbare schlechte Wahl zu entscheiden (Martin, 2007). Dabei sollte das Konzept nicht so eng gefasst werden wie in „Creating Great Choices“ von Martin und Riel (2017), die Optimierungen ablehnen. Bei strategischen Spannungen bieten sich neben der Synthese je nach Kontext und Zeitverlauf auch die zeitliche Trennung (im Lebenszyklus der Organisation), die Parallelbearbeitung (Kreativität im Design, Effizienz in der Produktion), ein hybrides Nebeneinanderstellen oder ein Kompromiss an, der den Zielkonflikt akzeptiert (De Wit, 2020): Evolution statt Dritter Weg. Auch Geschäftsmodelle sind nicht immer wirklich neu, sondern entstehen durch kreative

Imitieren: vom T-Modell Henry Fords über Discounter bis hin zur Billig-Airline (Gassmann et al., 2013). Der Erfolg von Apple beruhte nur anfangs auf dem „Next Big Thing“; Samsung hingegen wurde von Beginn an durch kontinuierlichen Wandel groß. Keine Einheitslösung also, sondern eine Palette von Strategiemustern und Organisationsformen (Reeves et al., 2015).

Wir haben gesehen, dass nicht Planung oder schrittweise Entstehung, sondern beides erfolgversprechend ist. Mit der Komplexität und Dynamik entwickeln sich die Chancen und Herausforderungen zunehmender Unsicherheit. Für Marketing bei Ungewissheit bietet nicht nur Effectuation einen Lösungsansatz für kreative Entscheidungen. Strategien und Organisationsformen für die schrittweise Entstehung von Lösungen gewinnen an Bedeutung, lösen Planung und Marktforschung aber nicht ab. Das Beispiel Projektmanagement lehrt: Ein situativ angepasster Mix zwischen traditionellen, agilen und hybriden Vorgehensweisen ist erfolgversprechend. Eine Kombination aus Planung und adaptivem Lernen ist ein Weg. 

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# Book Review



Sophie Hundertmark

## **DIGITALE FREUNDE**

Wie Unternehmen Chatbots erfolgreich einsetzen können

Wiley VCH, 1. Auflage 2020  
298 Seiten, Hardcover  
CHF 29,50 / EUR 24,99

ISBN: 978-3-527-51036-8

### **Abstract**

Chatbots are AI-powered interfaces with which people can naturally interact. The strategic integration of these fully automated, digital services in businesses can have several key advantages. The most prominent advantages that the author identifies are the ease of use, the transmission of emotions and personality with clients, the bonding with the digital copy of the company or brand, the around-the-clock accessibility as well as the ability to combine different media across touchpoints and channels. Chatbots are sophisticated digital tools that require no technical skills or experience on the user side. Notably, an interesting fact during an interaction with a chatbot is that customers tend to communicate similarly as if they were communicating with a real human, even though they are aware that a software program is on the other side. Striking examples of such behaviors are phrases such as “thank you” or “goodbye” and generally human-like conversations toward the chatbot. The book also provides a comprehensive framework that guides readers through the strategic and operational processes to successfully develop and implement chatbots in business practice, the needed resources, and the realistic time commitment.

### **Benefits for Practice**

The book *Digitale Freunde* by Sophie Hundertmark carves out the crucial role of chatbots for the future of internal and external corporate communications. The book covers a wide range of different applications from the German-speaking business world, where chatbots have been used

successfully. Additionally, she also provides a chatbot navigator that guides readers through developing their own chatbot strategy and sharing advice on the practical implementation – information that could be valuable for managers across industries. Sophie Hundertmark also shares several templates, some of them being developed by her, regarding the design of chatbots per se, and even chatbots’ designed personalities and dialog components (see also the article by Christian Hildebrand and Sophie Hundertmark in the current issue). In sum, the book contains valuable insights stemming from a multi-year professional experience of the author and offers a detailed and comprehensive approach on the use of chatbots. Marketing managers across industries will benefit from the hands-on application of the book.

Fotis Efthymiou

### **Main Propositions**

- 1.** Chatbots are AI-powered applications people can naturally interact with. Businesses can benefit from integrating chatbots due to their around-the-clock availability.
- 2.** Chatbots should be integrated strategically in order to provide a customized experience to customers and address their specific user concerns.
- 3.** Depending on the application, chatbots’ personalities and dialog components should be designed accordingly.

# Thema der nächsten Ausgabe: Direct-to-Consumer (D2C)-Strategien

Dieses Phänomen beobachten wir immer häufiger: Hersteller verkaufen direkt an Endkunden und umgehen (Zwischen-)Händler. Fashion, Beauty, Consumer Electronics bis hin zu Lebensmittelherstellern – alle evaluieren die Chancen und Risiken einer D2C-Strategie. Hierbei stehen Chancen, wie höhere Margen, direkter Kundenzugang, Engagement und Lernen vom Kunden und einfache Produkttests, den Herausforderungen, wie interne Fähigkeiten, Trafficaufbau oder

Kanalkonflikten gegenüber. Für etablierte Hersteller stellt sich die Frage nach dem „Wie“ oder „Ob“. Darüber hinaus fragen sie sich: Mit welchem Brand schafft eine D2C-Strategie Mehrwert? Was sind Erfolgsdeterminanten? Welche alternativen Channels werden genutzt? Wie werden die Customer-Journeys gestaltet? Gleichzeitig attackieren D2C-Start-ups etablierte Brands. Firmen wie der berühmte Dollar Shave Club, Casper bis hin zu Allbirds sind bekannte Beispiele.

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**Kooperationspartner**  
Friedrich M. Kirn  
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**Redaktionsleitung  
Universität St. Gallen**  
Susanna Renner, M.Sc.  
Telefon: +41 (0) 71 224 28 40  
susannaelisa.renner@unisg.ch

**Redaktion & Satz**  
Communication  
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Deivis Aronaitis,  
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Wolfgang Mettmann (deutsch)  
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deivis aronaitis design | dad |  
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Telefax: +49 (0) 89 120 228 14  
grafik@da-design.it

**Anzeigenleitung**  
Friedrich M. Kirn  
Telefon: +49 (0) 89 729599-15  
kirn@marke41.de

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**Leserservice**  
Magdalena Britt  
Telefon: +41 (0) 71 224 71 52  
magdalena.britt@unisg.ch

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Prof. Dr. Sven Reinecke (schriftführend)  
Prof. Dr. Thomas Bieger  
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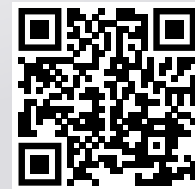
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