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How Conversational Commerce Will Shape the Future Automotive Sales Journey

Technological developments lead to a fundamental change in the way we communicate, collaborate, decide, produce and consume. Existing touchpoints are successively being digitized and new touchpoints are constantly emerging. An important step in providing customers with multi-modal services is to automate communication via multiple touchpoints. This is necessary in order to establish brand loyalty and increase customer satisfaction. In the context of automated communication, the deployment of Artificial Intelligence (AI) in the form of conversational computing, more commonly known as chatbots, bares huge potential for companies. Especially, the concept of conversational commerce is growing even further due to the widespread use of mobile devices in e-commerce, the declining interest in new apps on the part of users and the increasing popularity of messaging services. [1;2]

The current paper gives a short introduction to the technical components of conversational computing and introduces the empirically elicited potential of the application of conversational computing along the automotive sales journey. Finally, we propose relevant use cases in automotive conversational commerce.

Conversational Commerce Revolutionizes E-commerce

Conversational commerce is fundamentally defined by Chris Messina as "[…] utilizing chat, messaging, or other natural language interfaces (i.e. voice) to interact with people, brands, or services and bots"[3]. It entails great potential thanks to the latest developments in conversational computing. The size of the global chatbot market is foreseen to reach around 1.25 billion U.S. dollars in 2025. This is more than sixfold the market size in 2016, which stood at 190.8 million U.S. dollars [4]. Conversational computing revolutionizes the sales journey and allows customers to communicate location- and time-independently with brands via text, voice or a combination of both, depend-

ing on technology and use case. We currently find chatbots integrated into websites, messaging apps, cars, smart home devices, smart watches or as stand-alone voice assistants.

Figure 1 shows the architecture of a conversational platform, a software system, on which chatbots operate [5]. The focus lies in the functional area of natural language processing, which consists of the interpretation of natural language and the provision of suitable responses. This can be realized by defining so-called "intents" when programming a chatbot. These intents comprise possible user inputs and corresponding responses. When a user inputs natural language in the form of text or voice via interfaces such as WhatsApp, Facebook-Messenger, voice assistants or business software, a chatbot can match the natural language with intents. By the definition of entities, further information can be extracted from the natural language, such as the name or the location of a user. Therefore, entities provide additional context related to an intent.

Generally, context awareness plays a major role in a chatbot, as the generation of a correct response can largely depend on the context of the user's input. In particular, ambiguity in the use of terms is challenging for a system. Still, with the use of word embeddings and keyword identification the meaning and context of a term can be correctly identified with a high probability. By providing a chatbot with context awareness such that it can remember previous user input to anticipate and personalize a conversation, the probability of a suitable response can even be increased. In order to continuously scale and improve the performance of a chatbot, e.g. by extending its knowledge base, the integration of analytics and training tools is essential.

Should a question posed by a user be misunderstood by a chatbot, exception handling, more precisely fallback intents, come into operation. One possible fallback intent is to point out the limits of the chatbot. Alternatively or additionally, it can be advantageous to forward the inquiry to a human employee, if the chatbot does not answer the customer's request satisfac-
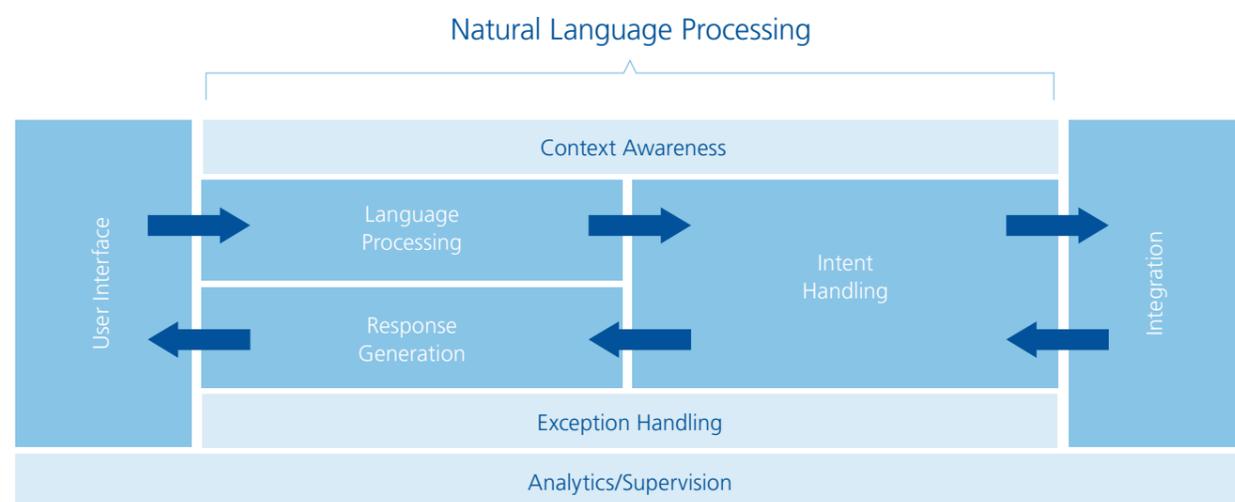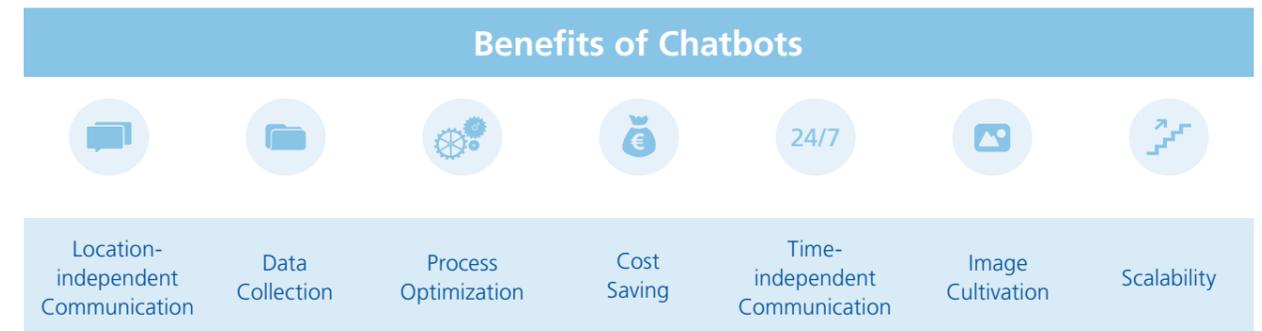
torily or if the customer explicitly asks for human support. Several call center software solutions available today can perform handovers from chatbots to human service agents.

Finally, to design human-like conversations, a chatbot should be able to adapt to situations and generate responses dependent on a user's device, channel, time and physical location. Furthermore, a chatbot equipped with a personality matching the brand identity enhances the customer experience.

Untapped Potential along the Automotive Sales Journey

At present, many companies across all industries are getting chatbot initiatives off the ground. However, the automotive industry still bears a lot of untapped potentials, especially along the online sales journey. One of the main reasons is the curbed progress concerning online sales. Certainly, an important fact to consider here is that cars are not comparable to Fast Moving Consumer Goods (FMCG) with respect to online sales. Circumstances specific to this industry such as high individual product value and complexity, the high value attributed

to personal customer advice or the right of withdrawal bear special challenges and represent the most frequently expressed concerns from automakers and dealers.
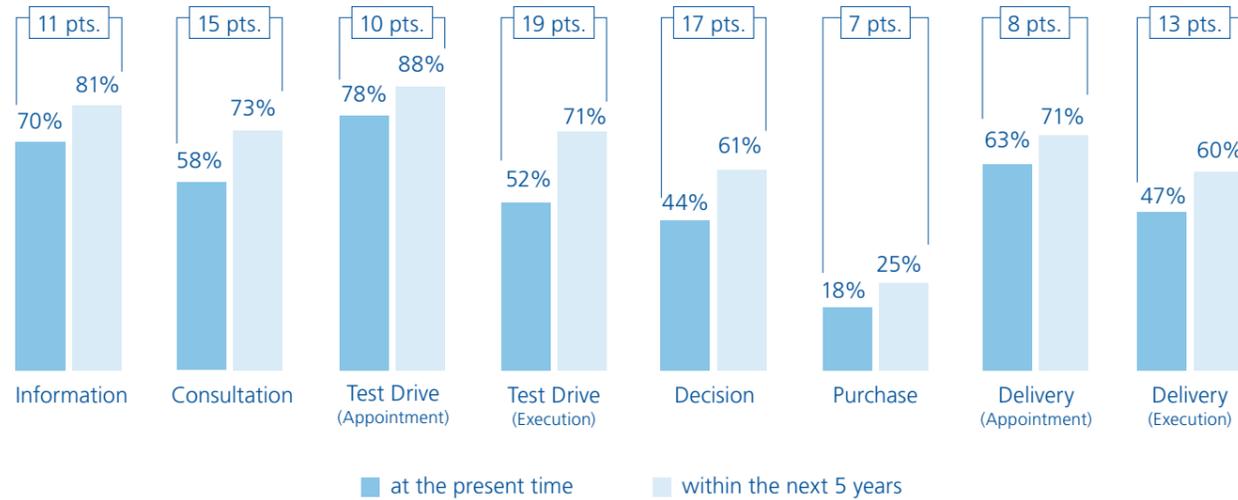
Nevertheless, the results of MHP's recent study "Online Car Sales 2018" show that German automotive customers are ready for online sales. According to our study, 78% of customers do not see the need for a sales representative in the information phase and more than half of all customers generally consider physical advice as dispensable. Moreover, our study shows that 75% of all customers would like to book a test drive appointment online and that approximately 66% would be willing to buy a car online. Customer favors the presentation and introduction of the car with virtual reality elements, which when combined with conversational computing enrich the customer experience [6].

Figure 3 shows the automotive sales journey with all its stages as established in the aforementioned study. This sales journey is also an object of the forthcoming content. However, we will only focus on the stages of Information to Delivery. Desire to buy does not serve any immediate potential for conversational commerce and Aftersales should be considered as a separate area of potential in its own right.

Figure 2 – Benefits of Chatbots

Benefits of Chatbots						
Location-independent Communication	Data Collection	Process Optimization	Cost Saving	Time-independent Communication	Image Cultivation	Scalability

Figure 1 – High-Level Architecture of Conversational Platforms [5]

Figure 3 – The Automotive Sales Journey [6]

Figure 4 – Customer Willingness to Use Chatbots in Automotive Sales

Figure 4 – Customer Willingness to Use Chatbots in Automotive Sales

	Information	Consultation	Test Drive (Appointment)	Test Drive (Execution)	Decision	Purchase	Delivery (Appointment)	Delivery (Execution)
pts.	11 pts.	15 pts.	10 pts.	19 pts.	17 pts.	7 pts.	8 pts.	13 pts.
at the present time	70%	58%	78%	52%	44%	18%	63%	47%
within the next 5 years	81%	73%	88%	71%	61%	25%	71%	60%

■ at the present time   ▢ within the next 5 years

Top Use Cases for Automotive Conversational Commerce

In another recent survey, MHP asked 100 German automotive customers regarding their willingness to use chatbots along the automotive sales journey, today and within the next 5 years. The results are shown in Figure 4.

We found that customers show a high willingness to use chatbots in most stages. Based on the results, we will not elaborate on Decision and Purchase for potential use cases.

Information

Especially, the information phase can be overwhelming for customers. Automaker and dealer websites provide a wealth of information concerning car models, vehicle options and services. Not only is the amount of information challenging, but also model variety and the number of available options are often worthy of assistance. As products become more complex, higher demands are placed on both customers and sales representatives. These arguments support the deployment of a chatbot, particularly in view of the fact that 70% of the customers are particularly willing to make use of a chatbot at this stage (see Figure 4). Moreover, according to the Conversational Commerce Statista Dossier (2018), German customers were asked about the most desirable areas of deployment of chatbots in the context of customer contact [7]. It was found that 38% want to have simple questions quickly answered, 28% want prospected information to be found immediately, and 21% want requested information regarding products and prices.

1   Product Expert & Intelligent Search
The chatbot serves as a product expert that knows all products and prices in order to search and find intelligently all information the customer needs. The chatbot presents all information bundled in a customer-friendly way and demonstrates the differences between certain models and options.

2   Website Navigator
Websites of automakers and dealers can be full of information, which makes it hard to navigate purposefully. A chatbot can support the customer to find and locate the required information in a fraction of the time.

3   FAQ Bot
It is always cumbersome for customers to search through FAQs to find the right answers to their questions. Chatbots provide a much customer-friendly manner of answering customer queries. FAQs are not only relevant during the information phase but throughout the entire sales process.

Consultation

As compared to the information phase, the consultation phase usually requires skills, which are currently still exclusive to humans such as empathy and judgment in order to advise customers towards a correct product fit. As the results of our study show, customer willingness to use chatbots in the consultation phase is with nearly 60% somewhat less than in the delivery phase. Nevertheless, a chatbot can still be of great assistance when it comes to configuring a car and making recommendations along the way. VW COO Ralf Brandstätter (2018) stated that of 84,000 sold Golf units in Germany [...] merely 400 units were identical [8]. That shows individual car configuration is a well-established procedure among customers, which still causes huge efforts at dealerships due to the need for assistance.

4   Recommendation Bot
On the basis of targeted questioning, a chatbot can recommend suitable models, options, and services according to customer profiles and preferences. In order to avert conflicting recommendations, the concept of recommendation engines is commonly deployed with car configurators, which retrieve data from customer profiles, purchased items or a combination of both. MHP is well acquainted with this technology, thus deployed at several automakers.

5   Car Configurator Assistant
For some people, car configuration is a pleasurable activity, for others, it is very time-consuming and nerve-wracking. Similar to the recommendation bot, a chatbot can help by posing the right questions and providing details on vehicle options, and aftersales services in order to navigate the car configuration process. By so doing, a chatbot accelerates the configuration process and decreases the termination risk. Eventually, a pleasurable configuration experience serves as a sales instrument. Both use cases can also serve as a preliminary step to a dealer visit.

Test Drive (Appointment)

Considering appointment bookings, customers are becoming increasingly impatient. Customers want to make appointments independent of time and location and are particularly irritated by waiting times incurred by receptionists. Reasons that lead to a notably high willingness to use chatbots with 78%. Frustration levels can be lowered by the deployment of a dealer appointment booking assistant.

6   Dealer Appointment Booking
By means of a rather simple webform, a text-based chatbot or a voice assistant, the area of appointment booking offers great potential to improve customer satisfaction. This suggestion is supported by the results of our study. Customers were mostly willing to use chatbots when booking a dealer appointment for a test drive. A chatbot can offer customers available appointments without being tied to opening or service hours.

Test Drive (Execution)

When it comes to the actual test drive, most people struggle to find functions in vehicles with which they are not conversant. Sales representatives certainly make time for introducing customers to vehicles, however, resources at the dealership are scarce, and in general, the information to be conveyed is mostly standardized and does not change considerably from customer to customer. Here, in-car voice assistants will be the most appropriate form of a chatbot and the results show that more than half of the customers are willing to use them on this occasion.

7   In-car Assistant
A voice assistant can support by introducing the car. In combination with visualizing elements, it facilitates finding functions and buttons thereby helping to adequately set up for the test drive. Ensuring a customer on a test drive is accustomed to a vehicle is significant in allowing an automobile brand to represent itself and its values effectively. Especially, during the test drive questions can arise at any time. A sales representative would usually not be present at this point to answer these questions. A voice assistant would be of great use in answering all technical and functional questions round the car while driving it.

Delivery (Appointment & Execution)

From a customer perspective, car delivery is supposedly the most exiting point along the sales journey. Alike the test drive phase, an appointment needs to be booked and the car needs to be handed over. More than 60% of the customers are willing to use chatbots for making appointments and nearly half of the customers are willing to use it at Delivery (Execution). Therefore, the previously established use cases **6** Dealer Appointment Booking and **7** In-car Assistant are considered most value-adding to the delivery phase.

Outlook

The automotive industry is currently undergoing radical changes. Technological progress in the field of AI will further enhance chatbot-capabilities and customers are becoming more accustomized to conversational technologies. Reasons that will lead to an increase in the customers' willingness to use chatbots along the sales journey, as the results of our study imply. However, we considered only a fraction of the potential that conversational computing has in the context of customer experience. Marketing and aftersales as potential fields of application are not to be neglected. Conversational computing and AI in its greater context offer a variety of possibilities for optimizing efficiencies and enhancing customer experience. Which in turn lead to increased customer satisfaction and brand loyalty, thus establish a competitive advantage.

The foundation lies in the underlying AI strategy and its starting point, the identification of adequate use cases and respective data. Only this ensures a seamless customer experience that is available across a variety of different customer touchpoints.

With our fundamental experience, we assist our customers in identifying value-adding use cases and accompany towards the realization of an end-to-end AI solution.

References

[1] Rusnjak, Andreas (2018): Customer Experience im Zeitalter des Kunden. Best Practices, Lessons Learned und Forschungsergebnisse, Wiesbaden.

[2] Gentsch, Peter (2018): Künstliche Intelligenz für Sales, Marketing und Service. Mit AI und Bots zu einem Algorithmic Business – Konzepte, Technologien und Best Practice, Wiesbaden.

[3] Messina, Chris (2016): n.T., URL: https://medium.com/chris-messina/2016-will-be-the-year-of-conversational-commerce-1586e85e3991, September 19, 2018.

[4] Statista (2019): Size of the chatbot market worldwide, in 2016 and 2025 (in million U.S. dollars), URL: https://www.statista.com/statistics/656596/worldwide-chatbot-market/, November 13, 2019.

[5] Gartner (2018): Market Guide for Conversational Platforms.

[6] MHP Management- und IT-Beratung GmbH (2018): Online Car Sales Studie 2018, Chancen und Handlungsempfehlungen für den Automobilvertrieb via Internet.

[7] Statista (2018): Conversational Commerce Statista Dossier, URL: https://de.statista.com/statistik/studie/id/41378/dokument/conversational-commerce-statista-dossier/, November 13, 2019.

[8] Brandstätter, Ralf (2018), URL: https://www.welt.de/wirtschaft/article185131950/VW-nimmt-seinen-Kunden-die-grosse-Auswahl-weg.html, November 11, 2019.

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