Christopher Patrick Peterka
FUTURIST + ENTREPRENEUR

# INTERVIEW WITH CHRISTOPHER PETERKA

“Smart Home” is an issue everyone is talking about. The networked “intelligent” home ensures more safety, saves valuable time and reduces energy costs. But what exactly is “Smart Home”? How does the networking work today already, where does it make sense to use it and how can “Smart Home” be implemented in practice? And above all, what can we still expect in the near future?
The smartLiving editors spoke to Christopher Patrick Peterka who supervised the Cosmos project right from the initial phase. Peterka is a futurist, entrepreneur and investor with 22 years of practical experience. He founded a company for natural language interfaces for man-machine communication in 2000 already. With the think tanks gannaca and THE HUS.institute he advises organisations around the world regarding their innovative culture and future strategy. He is especially interested in new rules in the economy and society in the age of the modern digital era. As conference speaker and interview partner, Peterka inspires, surprises and provokes. He creates context, conveys relevance and stimulates reflection in a pleasant manner. In doing so, he pushes the limits of the ability to imagine and the feasibility, without losing sight of everyday life. Because last but not least, fast change and specific action are important to him as cyborg and father of two children to keep the world humane in the age of artificial intelligence.

**smartLiving: Mr Peterka, you are an internationally active futurist, entrepreneur and investor. Through the think tanks gannaca, your own company and THE HUS.institute you are advising internationally renowned companies on their innovative strength and future strategy, mainly in the areas of digital transformation. How did the collaboration between Orsus GmbH, the building owner of the Cosmo project and you come about in the specific case?**

Christopher Peterka: Dirk Löhle, the managing partner of the building owner, is a visionary and forward-looking entrepreneur. He therefore already decided in the early phase of the project identification that the entire planning team should deal with the new social and economic circumstances of the modern digital era in which we have been living since 2002 in my opinion.
We then concentrated on a workshop process moderated by myself with short-term as well as medium-term development scenarios of

various current trends from a socio-psychological, techno-historical as well as netnographic perspective in order to draw practical conclusions therefrom for the current project development. The aim was always to create a product into which the future has virtually already been integrated.

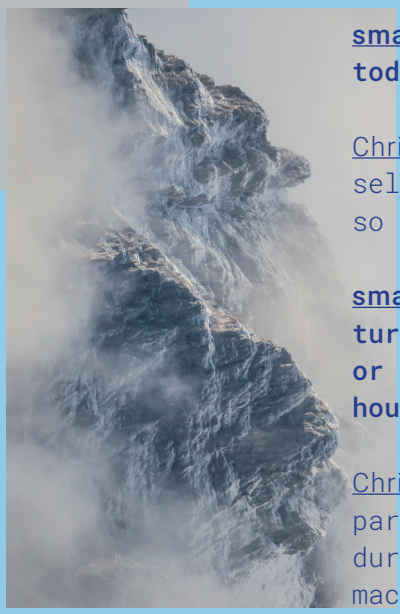
**smartLiving: The Cosmo project is called "Update Living". What do you understand this to mean and which technological innovations and features may the future owners expect when moving in?**

Christopher Peterka: In the first instance, a very clever platform approach is concealed behind the motto. The home technology in conjunction with architecture and interface design primarily only serves to offer a really simple, resilient and discrete possibility for the individually different needs of the user to use clever applications and to extend these by means of own technological equipment elements. In Cosmo, the user decides whether, how and when he wants to use the available possibilities of the digitally supported control and information offers. He can always rely on the fastest, stable internet at every location in the building; he never has to worry about complicated tariff details. Internet simply flows like water and electricity. Furthermore, Cosmo protects the time credits of its users by intercepting the logistical outages in the transport of packages by means of an interlinked repository on the ground floor. Users find their orders on site and also return them from there at any time – unbound by opening times and the goodwill of their neighbours. At last, the house and apartments can be accessed without having to carry medieval scrap metal in the pocket anymore which sometimes gets lost, as experience teaches. It is replaced by biometry: a fingerprint opens the door safely and without using a key. However, the most important feature seems to me to be the actual application interface which each user installs on his existing smartphone. It serves as control centre for numerous elements from light to the circuitry up to the socket circuit – and comes along with any update by the large manufacturers such as Apple, Samsung or Huawei. For Cosmo thinks from the perspective of its users – not from the perspective of the manufacturers or the developer.
It is a fundamental difference from the numerous projects on the market which are mainly an end in itself and are an excuse – stupid showcases for the often mostly merely proprietary technology of many "dinosaur" manufacturers. Many of these have still not understood what the paradigm shift away from the Gutenberg galaxy to the modern digital era means for the issue system control: loss. This way of thinking that mainly concentrates on the economy has become too narrow but can imply something that is wonderful: the previous almost feared user can become a new "prosumer". Thus someone who does not only use something but even manufactures something, namely applications no manufacturer in the world would have thought of. In the field of intelligent light control, the Hue system has something similar, for example. There, users develop a link according to the rule: "If the VfB scores a goal all bulbs light up red for two seconds". The sober alternative is: "If my diary suggests that I have had a stressful week, switch on a dimmed light programme when I return home – without me having to

become active". No manufacturer will come up with something like this anytime soon.

**smartLiving: The Cosmo-internal network implemented by you is based on a modular design, i.e. it can easily be extended by further useful features in future. Which features could that be?**

Christopher Peterka: We are thinking very open-mindedly: Thinking conventionally, users can of course introduce and control their home cinemas and the related sound installations or can set up voice control assistants in their hoes with which they can then operate certain functions. During their vacation in the Caribbean, they could, however, also allow their temporary overnight guests keyless access, or watch their pets via movement-sensitive camera technology on robotic vacuum cleaners while going on one of those popular trips, or could finance electrical refueling at their parking space in the Cosmo basement car par by means of blockchain-based SolarCoins via their PV system on the roof in Pfullingen.



**smartLiving: Do similar projects already exist in Germany or Europe today?**

Christopher Peterka: Yes, there are other projects that call themselves "smart". No, I don't know of a project in Europe that is so inexpensive.

**smartLiving: Let's look at the presence and especially at the future. Is there/are there currently or also in future a megatrend or several megatrends within the scope of digitalization in the housing sector? If so, which megatrends are these?**

Christopher Peterka: Let's start on a boring note because it is apparently well-known: the "Internet of Everything" is emerging during these years. Occasionally I also talk about the "world machine". Because that is exactly what we are building with each additional chip that is installed somewhere in a street light, a dishwasher or a parking space sensor. In a way, the internet moves out of the computer where we got to know, appreciate and fear it, in order to move into the world. The estimates of various research groups expect around 50 billion networked devices globally by the year 2020 already. And as abstract as this figure may be, as concrete will this development regarding property become because "glass-stone and concrete" will increasingly become "silicon-plastic and metal", for new practical additional values are created by countless technology elements that are successfully introduced by developers and users: thus, for example, more alternatives of room programmes can be realized on less room by means of furniture supported by robots, space can be remote-controlled for rental to third parties with drastically less personnel costs or a maintenance system can be automated almost completely.
Then we should think of machine learning. The much-discussed information under the keyword "Big Data" that arises during the use of a residential property, is now viewed and checked consistently by software programmes that are configured as self-learning sys-

tems, without the analytical involvement of human experts. They create all mathematically imaginable links between all the available data points and check all the possible correlations at a speed and depth that can no longer be reconstructed traditionally and scientifically these days. Thus we are losing conventionally perceived control on the one hand, but gain insight on the other hand. This can mainly be expected in the identification of correlations that are unknown so far, if data files which so far only existed next to each other or not at all, are combined with each other for the first time. But we may think about all sorts of rather conventional constancies in areas such as traffic, socio-demography or weather conditions up to rather unusual information such as Amazon prime subscriptions, car-sharing use or crypto currency transactions. Thus the marketers may for instance look forward to much more accurate distributors. Property developers can screen more appropriate lessees for the actual needs or electric filling stations can be operated exactly at those positions where they are actually needed.
Artificial intelligence and its preliminary stages in the form of complex and cross-system guidelines or contracts fulfilling themselves, so-called "smart contracts", then present a further trend line from which we can probably still expect quite a bit in the next ten years. This has the potential for massive automation of many existing functions and monitoring of properties, but simultaneously for the sudden emergence of needs for completely new qualifications such as in facility management which then also has to be able to deal with voluminous data streams and drastically increased interface problems with numerous new logistics partners in everyday life – from the package logistician to the virtual medical service up to the Cloud hoster.

**smartLiving: Who are the technological drivers of digital innovations in the residential property sector on the supply side? Are these the large companies such as Google/Alphabet, Apple, Amazon, Samsung etc. or also special suppliers?**

Christopher Peterka: The "Big Five", as which Alphabet, Amazon, Apple, Facebook and Microsoft are labelled, as well as their Chinese counterpart in the form of the company Tencent, in conjunction with a handful of globally active risk capital companies such as for example Andreesen Horowitz, Sequota Capital or Benchmark, set the tone in my opinion. The keyword here is "network effect". The network effect is part of the external effects in economics. It describes how the use – and I freely add: also the rules of use – of a product changes for a consumer if the number of other consumers of the same product or complementary products change. In the meantime, the number of users gathered in the big ecosystems of the Big Five is so large that it is not surprising that we symbolically say that for example Facebook is "the largest country in the world". In June 2017, the company exceeded the two billion threshold of active monthly users. That is a tremendous market power that can probably hardly still be controlled in the case of infringements of the competition rules. I only give special suppliers opportunities if they push forward very quickly and with

consistent focus on the user experience in clearly demarcated areas while remaining agile.

**smartLiving: A final question: Which technical features will your personal dream house have in 10 years? How do you wish to live? And what will be realistic?**

Christopher Peterka: In the first instance, my personal dream house is positive energy – including its building expenditure. Furthermore, it is made from 100% raw materials that have been taken from the recycling economy and can also be recycled again. Furthermore, it is fully networked and is controlled by an autonomous artificial intelligence that is legitimated by me. It is responsible for the maintenance, operation, asset management and configuration of the property in accordance with my resources and above all my everyday life. For this purpose, I have granted it access to my calendar organization, my entire electronic communication and my asset management.
I neither want to actively deal with shopping logistics, hygiene management, burglary protection, organizational or mood-dependent configuration or anything else – except if the spontaneous desire to be actively involved comes over me. For this purpose, the house is subject to the control of various robotic systems: for example, the transport drone that quickly gets some more drinks in the supermarket, the electronic watchdog in the garden that unmistakably warns the unwanted guest and reports him to the police authority together with a live image and protocol of the questioning, if applicable, but also a multitude of passive systems that make medical appointments for me via intelligent sensor technology and complicated data analysis systems when my urine shows abnormalities or the breath analysis of my vehicle recommends a visit to the psychologist.

**smartLiving: Mr Peterka, we would like to thank you warmly for this interview.**

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