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Foreword

We live in times of permanent, ever faster changes. This change also affects design and the associated processes. Designers today not only design products, but also entire product systems, possibly even including the associated business models. In addition to economic aspects, ecological and social factors also play an increasingly important role. Design cannot only help to improve the quality of life of consumers through better products, but also to make our society as a whole more sustainable. But this expanded understanding of design. as described by Ursula Tischner in the publication "Was ist EcoDesign?"(1) published by the German Environment Agency or by Bernd Sommer and Harald Welzer in their book "Transformationsdesign"(2), is not as new as many think; as early as 1971 Victor Papanek demanded in his book "Design for the real world" that designers must also assume social responsibility.

In the 1970's, we experienced the oil crisis, today, we experience climate change and the scarcity of resources that increasingly cause designers headaches, which is why many of them are wondering how their work can help solve the many global problems. And that's a good thing, because designers with their distinctive problem-solving skills and their ability to think holistically have particularly good prerequisites for solving such complex tasks.

The fact that design and the associated processes can achieve far more than the design of products or product systems is demonstrated by the design thinking method, which is becoming increasingly popular in many branches of industry. Design thinking draws on useroriented approaches from the design sector to produce innovative products and services that are geared to the conscious and unconscious needs of users and their abilities. Here it is particularly evident that the usual iterative approach in design can also be successfully applied in other contexts.

The awareness that designers are ideally suited to accompany and actively shape the transformation of companies, NGOs, and even our society as a whole has led, among other things, to the fact that large international management consultancies such as McKinsey, Accenture, Capgemini, to name a few, have begun in recent years to integrate design agencies into their corporate structures.

Talking about the transformation of industry and society, another topic comes to mind: increasing digitalization. Keywords that are closely related to this topic, such as artificial intelligence, the Internet of Things, robotics or big data, are well known in the media. But very few people have a concrete idea of what lies behind it in detail or how these technologies could change the lives of all of us. This ignorance potentially fuels fear and rejection. Here, too, design can help by reducing the "perceived" complexity of these technologies through user-oriented design and making them more comprehensible and accessible for the general public.

The industry has recognized the increasing importance of design for corporate success in many areas. Design has finally become a "matter for the boss", as designers have been demanding for a long time, and so we can already find some top management personalities who have not completed any training in economics or engineering, but have completed a degree in design. While at the beginning of the millennium many companies were still striving to reduce or outsource design departments in order to save costs, a contrary trend has been observed in recent years; the in-house design departments are growing again. Especially in the area of user experience design (UX), specialists are in high demand nowadays. At the latest since the success of the Apple brand, (almost) every product manufacturer today knows about the importance of UX, i.e., a positive experience when dealing with a product, system or service, is for the success of a company.

At the Industrial Design course at FH JOANNEUM in Graz, we are also adapting to the changing requirements of design in the training of future designers. Courses such as "Mechatronics" in which prototyping with Arduino is taught and tested, or "Interface Design and Usability", in which operating concepts for complex applications such as ticket vending machines are developed, take account of the increasing digitalization of the product world. The specializations "Eco-innovative Design" and "Mobility Design" offered in the master program since 2016 also represent a further development. The former deals with the question of how products and product systems can be made more sustainable. It is not only about the use of environmentally friendly materials, but above all about making our lives more sustainable by using products more responsibly, e.g., through intelligent rental systems (keyword "use instead of own") or by changing our lifestyle to be more resource-friendly, socially compatible and thus more sustainable overall. The "Mobility Design" specialization pursues the same goals, but with a focus on mobility concepts. In both areas of specialization, it is therefore becoming increasingly important not only to think in terms of products and product systems, but also to develop the associated services. A designer today no longer thinks in terms of individual solutions, but designs entire product ecosystems and - if it makes sense - supplies the new business model as well.

Some of the design studies shown in this book already reflect the changing role of designers and we are very excited to see what answers the coming generations of Industrial Design students at FH JOANNEUM will give to the challenges of our future.

Michael Lanz Graz, 2019

List of sources:

⁽¹⁾ Tischner, Ursula et al.: Was ist EcoDesign? Birkhäuser Verlag, Basel, 2000

⁽²⁾ Sommer, Bernd and Welzer, Harald: Transformationsdesign, oekom Verlag, Munich, 2014

⁽³⁾ Papanek, Victor: Design for the real world, Thames & Hudson, 2nd revised edition, 1985

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