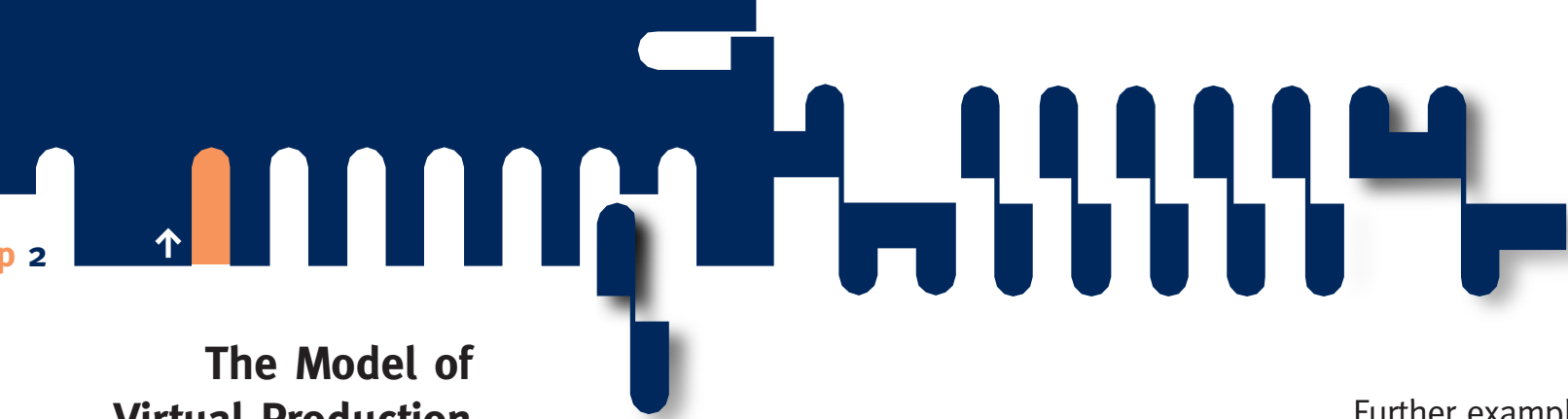




The Model of Virtual Production

The rapid development of data processing at the end of this century has changed our society at a breathtaking speed. Just like the steam engine became the symbol for the first industrial revolution, the microprocessor is the driving force behind the dynamic changes of our days. Computers with ever increasing power put their stamp on today's life. These radical changes also have consequences on corporations and the way they function. The model of virtual production, as various economists propagate it, is a vision of how corporations will develop in the 21st century.

The key element of virtual production is a new kind of product: the virtual product. In their book "The virtual corporation - the customer as co-producer" which was published in 1993, the American economists William H. Davidow and Michael S. Malone describe the virtual product as a product that can be made available anywhere, at any time and in any shape or size. To be consistent with this definition, the product is developed according to the wishes and ideas of the customer and only once it is sold, it will be produced.



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A certain number of products, which are already marketed, show that this is no utopia. The Japanese optician Paris Miki offers to customers in their worldwide branches the possibility of making glasses according to their wishes and ideas. The optician is supported by a computer system when advising the customer. Based on a portrait of the customer that is taken with a digital camera, the glasses are created on the screen, following a dialog between optician and customer. This expert system aims at making suggestions about the shape of the glasses, which are solely based on the details given by the customer. As this unique pair of glasses does not yet exist, the customer can get an idea on the screen as to whether this virtual pair of glasses suits him or not.

Further examples are, among others, the customized jeans for women “Personal Pair“ offered by Levis Co. in the USA, customized shoes by Custom Foot Inc., as well as music CDs, books or magazines which are put together according to the customer’s wishes.

All these products have in common that their designs already exist as digital data files, which can be transferred via computer networks or the Internet, adapted anywhere and at any time according to the wishes of the customer and then immediately produced on CNC-machines. The virtual production is more in line with the work pattern of the craft trade than with industrial production, even though it uses elements of computer-controlled manufacturing that originate in the industry. It could therefore be defined as “neo-craft“ as well as “post-industrial“.



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Even though the above mentioned examples are mainly employed by large corporations in order to broaden their product range, the virtual production opens up opportunities to the craft trade by making their production of consumer goods competitive again, by promoting independent firms and the ecological idea of decentralised production. The virtual production can thus also be understood as “electronic craft trade“.

One problem of this new form of production, however, is the fact that the various economic fields do not progress at the same speed. Some fields, according to the expert Horst Gräber, have not even begun to make use of the potentials of the new technology. This is certainly the case where furniture construction is concerned.

At the → **C... Lab** at the Hochschule für Gestaltung, Offenbach, to begin with, an attempt was made at transferring the general model of virtual production to the special conditions of furniture construction - first as a vision, and then also as a guideline for basic studies, design experiments and pilot projects like → **NEWCRAFT**.

→ **Recommended literature** on topics around the virtual corporation.

