Business Games, Rationality and Control Logistics

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ABSTRACT

This paper presentsthe research project "Business Games as Cultural Techniques. Transforming Knowledge and Steering Actions at the Interface between Economy, Computer Sciences and Mediality".[1] The main idea of the project is to reflect a development that is central in the history of the computer as well as games between 1950 and 1970, when both these cultural techniques were at the centre of great and revolutionary changes to the social order. The main result of this rearrangement is today's understanding of the logic to market economy and steering rationality – but also the idea of serious games or the specific connection of computer and game.

Keywords

Business game, serious games, economy, operation research, logic of control, rationality

Today, computers are a part of extensive logics of control. This development is based primarily on the military field of Operation Research, as developed after World War II. But our thesis is that the most important impulse did not come from the calculations of combat charts, but from the banking sector and accounting. Not the sword, but rather the abacus leads to the computer as part of an extensive control system.

Business games combine computer technology, decision logic, modeling complexity and economic rationality. Therefore, based on this interface, it is possible to reconstruct fundamental changes in logics of control across society. Basically a business game is a model which reproduces parts of specific economic, political or social systems, and offers a simplified access to the complex correlations in these systems. Through a system of rules and interfaces the participants have possibilities of interacting with the model and thereby determining the outcome of the game. As the consequences of their actions are limited to the contexts of the game, the participants can experiment with new strategies. Models in business games are based on closed loops and are therefore part of the cybernetic approach of economics. Therefore, the logic and mechanics that the business game is based on are deeply rational and logical. How then does the business game as a game fit into the prevailing logics of control which appears to comply with a rational paradigm of controllability, operationalizability and predictability? In the form of the business game and further in the paradigm of (business-) simulation, it becomes a decisive tool to model complexity, regulate coincidences and develop new management

models. All in all one should be looking at the outline of the change from mechanical rationality to the ludical that materializes in business games. Embedding the game in a rational discourse as an operational element of the production of knowledge and truth is possibly one of the decisive epistemological innovations of the 20th century. The discussion focuses on identifying which functions of the game ennobled it as a "medium of reflection" in the 20th Century. How come a game is used in the rational-economical field of discourse of business?

The business game was developed after World War II due to a break of society's steering logic. This break is particularly visible around 1950 in elements of business management and economic paradigms. It can be seen as a result of specific development in World War II. As shown by Adam Tooze(2007) for Germany and Philip Mirowski (2002) for the USA, World War II caused a substantial acceleration of specific economic developments. Whilst the markets as steering instruments were increasingly rendered inoperative in both war economies, economic theory, engineering and mathematics worked together to solve the steering deficit – and of course also the problems of supply chains and war economies. The result was the new research branch Operations Research.

Operations Research represents the transfer of work sequences to complex mathematical models, and consequently the depiction of commodity and service flow for steering purposes. With the end of the war and the gradual rehabilitation of the markets to the steering function of modern economies this specific and new knowledge of steering possibilities found its way into the knowledge of corporate management. Operations Research, the establishing informatics, mathematics, but also the beginning scientific management, cybernetics, and the established forms of the military simulation game are all connected into an utopian concept of total and rational steering fantasies. This process may be seen as the basis of business games as instruments of modern corporate management.

Business games found their way into the Corporation by the culture of the consultants. Around 1950 the gouvernemental structure of operation research transformed into a market tool. And one of the most influential ideas that were implemented by these external advisors into the corporations was the idea of a total rationality of steering and the idea of specific didactics to train the management (cf. Beninger 1986). Since the 1950s business games are used in the areas of instruction and trainings of the corporate management and also in the economic scientific research. In the 1960s and 70s the business game spreads increasingly, especially in the USA and Great Britain and finally also in Germany (cf. Rohn 1964, Wolfe 1993, Faria et. al 2009). Games such as the New York University Business Game were used internationally in the 1970s, for example in the Netherlands, Poland and Hungary. A relatively independent history of the economic business game can also be seen in the Soviet Union and other socialist countries – a state directed and planned economy seems to be deeply compatible to the concept of rational steering.

From the start, the business games as learning systems imported concepts of psychology, sociology and cultural anthropology (Wolfe 1993), whilst the development and circulation of business games is closely connect to the history of computerization. Computer based business games of the *American Management Association* from 1956 are the earliest (non-military) computer games ever. This *Top Management Decision*

Simulator is considered to be the first computer based business game that was developed for use in management workshops (Marting et. al. 1957). It was developed on behalf of the *American Management Association*in cooperation with the *Naval War College* and *IBM*. The two most important direct offshoots of the first AMA game were the *IBM Management Decision-Making Laboratory* and the *UCLA Executive Game No. 2*. Both games used the IBM 650 Computer. *The Business Management Game* developed by Andlinger and Green at McKinsey in 1958 is considered a further prototype of the business game (Cohen et. al. 1961).

Operation steering, transformation of knowledge as well as adaption to a new medium and a changed rationality concept were played in the 'Serious Games' of the 1950s. The game as corporate trial action is a space of operationality, of adherence to rules and variations, of calculatory finesse and complex processuality. In the form of the business game and business simulation, it becomes a decisive tool to model complexity, regulate coincidences and develop new management models. In short one could speculate that there is a change from *mechanical* rationality to the *ludical* rationality that materializes in business games.

A turnabout in the paradigms of economy itself is important in understanding the function of the business game. The development of the business game is connected to changes in the economic theory and the general conceptualization of economic rationality. One can assume that the epistemological break in the transition to the modern, axiomatic economic theory made the business game as a management instrument and method of decision making possible. The historiography of economic studies is still at the beginning of researching these transformation processes of the subject after World War II. But one of the major ideas is, that at this point economics begin to transform from an abstract external steering instrument to an intrinsic and adoptable internal knowledge. The adaption of the managing subject to this logic was 'trained' by the external consultants (coming from the operation research and the early cybernetics) – and it was "rationalized" by using an entirely new rational technology – the computer.

Here, the game appears as a possibility to adapt and to naturalize playfully changed terms of rationality and steering. This new knowledge of rationality was primarily accessible to the decision maker in a protected learning and teaching environment. But of course later on it diffused to the whole society.

ENDNOTES

1 For further information cf. www.strategiespielen.de

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