# **Playing with Data Bases**

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#### **ABSTRACT**

Among the specific forms of rationality that are to be analyzed with regards to games are the control circuit, the simulation and the data base. As different cultural forms of the computer's conveyed mediality they represent intermediate elements between the calculating, programmable machine and the cultural grammar of its handling as well as its social implementation, between 'hard' technology and 'soft' utilization, between calculating and meaning. This paper gives an overview about the form of the data base. Ludic culture is closely linked to the data base. Thus the data stored in the data base can be made usable and playable by means of algorithms and rules. In some games, the data base is even in the center of events. The data base is apparent when presenting tables and statistics, but also in the according operations such as searching, filtering or linking. What then does it mean, to "play with data bases"?

## Keywords

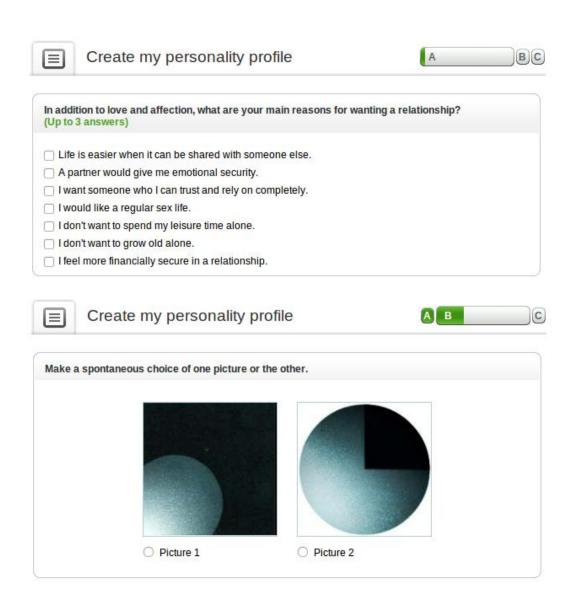
economy, business games, data base, statistics

Data bases have a major impact on modern life, shaping our understanding of science, health, sexuality, among other things, and increasingly determining our everyday life. More and more domains become dependent on data bases. The data base represents an intermediate element between the calculating, programmable machine and the cultural grammar of its handling as well as its social implementation, between 'hard' technology and 'soft' utilization, between calculating and meaning. It has in turn found a place in the cross-social discourse, among others in the shape of economy based recreational games.

Every data base starts with a moment of distinction. Only if things can be separated from each other, we can sort and order them. The data base needs order, and by demanding it, the data base takes part in producing it. Only what can be addressed properly will be able to find its place into the data base. Of course, a division always comes with omission. Which attributes, which data is specified to be entered into the data base, is as well a result of technical issues as of ideological ones. And not in every case where the data base model does not fit to reality, it is the model that is being adjusted. Hence, the data base does not only structure the recorded data but also the user's attention.

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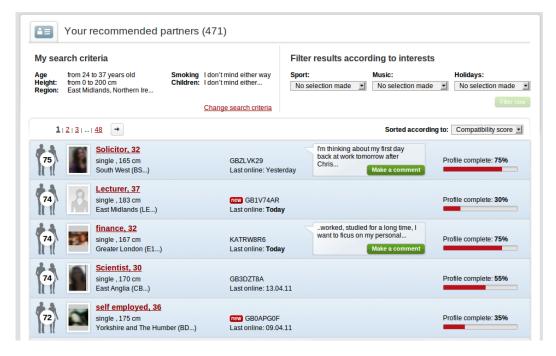
**Figure 1:** Two example questions out of eighty to ninety questions from the Parship questionnaire (http://www.parship.co.uk)

This applies to such different areas as knowledge production (Google), management (SAP), science (National Center for Biotechnology Information (NCBI)) and security (Passenger name records (PNR)), to name only a few examples for large and popular data bases. It also concerns a domain usually not suspected to be connected to numbers: love. Web companies like Parship, eHarmony, Match.com, Chemistry or Yahoo Personals provide extensive data bases with people wanting to mate. To find a convenient counterpart for instance at Parship.co.uk we need to register ourselves at the website and pay a fee. So we fill out a form – even love is not save of bureaucracy – and take part in a demographic and psychological profile questionnaire, titled as "compatibility test". The test consists of around 80 to 90 questions about expectations, attitudes, future plans, likes and dislikes, and does also include psychological tasks (Figure 1). Finally, we provide some personal information and then the secret – but according to Parship "scientifically approved" – matching algorithm can do his magic. After some seconds the system

produces a list of 'appropriate' matches. How well you would fit together and would complement each other is indicated by the compatibility score (Figure 2). Of course, the higher the score, the greater the degree of compatibility between your profiles.

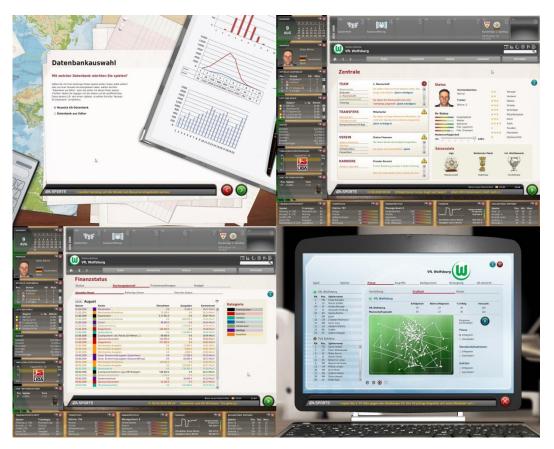
This whole process is quite extraordinary. It is not about chemistry or serendipity, about pheromones or love at first sight. Instead you split your life, your whole being into categories, grade and order them and put your personality into lots of little boxes, namely the Parship data base. Then your boxes are compared with other boxes according to a specific matching algorithm. Afterwards you can narrow down your search and filter the actual results even more. Finding your mate becomes only a question of the right data base query.

Obviously, data bases are about distinctions, categories, ordering and relating data with each others. They work with operations like searching, filtering, relating, combining, and so on. FIFA Fußball Manager 2010 [FIFA Soccer Manager 2010, S.B.] (EA Sports 2009) is a game which works like that. It implements in some aspects all of the eight managerial functions known from economics: planning/coordinating, organizing, staffing, communicating, motivating, leading, and controlling. Consistently, the game starts in an "office" and provides various management tools, like dashboards, calendars, e-mail, budget planning tools and numerous forms of statistics. The aesthetics and operations of a data base are part of the core concept of the game. The player takes on the role of a manager of a soccer club, and the goal – as the game itself describes it – is to establish a successful club, successful in regard to sports as well as financial return.



**Figure 2:** After the questionnaire Parship generates a list of "recommended partners". The list is sorted according to a "compatibility score" in the left column. (http://www.parship.co.uk)

From the perspective of data bases the game could be rephrased as follows: The player has access to a lot of tables with numbers and indicators (Figure 3). They are called, "employees", "finances", or "players", to name only a few. But basically they are just numbers. The goal of the game is to bring the table called "premier league" in the right order: "your club on first place". To do that, the player can carry out certain operations on the tables to modify the numbers in these tables in the right way. These operations are then called: "employ new player", "send player to training camp", "increase ticket price", etcetera. To some extent, the fun of the game results from the fact that you realize the right order of the different tables, but cannot manipulate them directly. You always need to use these indirect operations because using direct access to the data would usually be recognized as cheating. A lot of a games will implement data bases as part of their technical layer. However, in this case the data base is not hidden underneath the interface. The players directly play on the data base, not in a technical sense but in a cultural one.



**Figure 3:** Different screens from *FIFA Fußball Manager 2010* (from the top left corner in clockwise direction): (1) When starting a new match you first of all select the data base you want to play with. (2) The central screen for the manager resembles a dashboard. (3) Every soccer match can be analyzed in detail with various statistics. (4) Besides the sportive challenges the player also has to manage finances and other departments.

On the one hand, to find all these numbers in a game is not very surprising because video games are based on computers, and computers have a specific nearness to all things numerical. The digital world is a numerical one in itself. To access all these numbers players do not need to carry out physical measurements or take surveys. They are directly provided by the game application itself or can easily be readout with additional software. On the other hand, it is quite surprising since we usually associate games with fun and leisure. Yet, statistical analysis and mathematical modeling is not the first thing that comes to mind when thinking about fun. However, as you can see in Figure 4, a table in the game FIFA  $Fu\betaball$  Manager 2010 is very similar to a table with the same data in Microsoft Excel 2010 (Microsoft 2010).

This is only one short example, there are probably much more ways, the structure, logics and operations of data bases are reflected in games. But what does it mean to play "with" or "on" the data base? Basically, it means that you put on the data base eyeglasses and engage into a specific mode of thinking and use particular actions. For example when I look at the list of appropriate matches generated by Parship and start working through that list according to their compatibility score. In this moment I have already put on the data base perspective. I make the logic of the data base to my own logic, at least concerning a game like Soccer Manager, or concerning a website like Parship. But perhaps after recurring contacts with this way of thinking, I might even adhere to it in completely different situations.

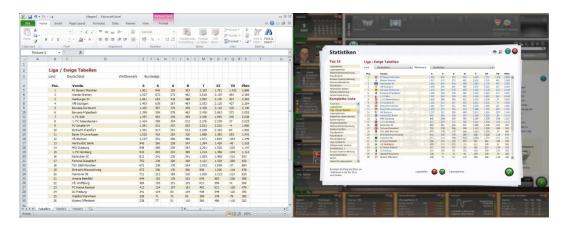


Figure 4: The same table in the spreadsheet application *Microsoft Eexcel 2010* and the game *FIFA Fußball Manager 2010*. This game even offers a function to export data to external spreadsheet applications so that the player is able to play, or perhaps better "work", with the data in more detail.

There seems to be a specific reasoning or rationality in economy based recreational games. An imagination, you could even call it "wishful thinking", of measurability and controllability. You need to measure it, to manage it. There is no place for gut instinct in this system. I am sure that it is different in economy in practice. A lot of decisions will not be based on scientific management but mainly on experience and intuition, short-term thinking and greed or other feelings. But in certain games we find a rhetoric that points strictly at scientific management and controllability. Therefore, in regard to tables, statistics and data bases, video games do not offer an escape to reality. On the contrary, specific games easily qualify as training in numerical practices. Of course, playing FIFA Fußball Manager 2010 will not make you a better head of department but it definitely helps you to adapt to our society of numbers.

### **BIBLIOGRAPHY**

EA Sports (2009) FIFA Fuβball Manager 2010 [PC Computer] EA Sports, Redwood City, USA.

Gugerli, David (2009) Suchmaschinen: die Welt als Datenbank. Frankfurt am Main: Suhrkamp.

Hacking, Ian (1990) The Taming of Chance. Ideas in context. Cambridge [England]: Cambridge University Press.

Mennicken, Andrea und Hendrik Vollmer, Hrsg. (2007) Zahlenwerk Kalkulation, Organisation und Gesellschaft. Wiesbaden: VS Verlag für Sozialwissenschaften / GWV Fachverlage GmbH, Wiesbaden.

Microsoft Corporation (2010) *Microsoft Excel* 2010 [PC Computer] Microsoft Corporation, Redmond, USA.