

Social and ethical aspects of the Y2K problem

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Abstract

It will be shown that the Year 2000 computer problem has three (a technical, a business related and a social) aspects. From the controversial tendencies of the independent and interconnected relationships of the problem a framework of the postmodern network society can be associated. The Year 2000 computer problem can be considered as a measurement of the postmodernity of the present societies.

Introduction

The Year 2000 computer problem (the Millennium Bug, Y2K Crisis, Time Bomb 2000, etc.) emerged from the common programmer's practice of the 1950s and 1960s that for representation of the year in computers they used two rather four digits. In that time this practice was *reasonable and economic*. [Fallows, 1999, Information] On the one hand according to the common opinion of the age the development and complete renew of computer software will be a very fast process, in this way within a few decades the two-digits representation of the year will be considered as the interplay of the forgotten past, on the other hand the computer memory and processing time was very expensive. However, if we compare these expectations to the real processes we will find the technological development run in a different way. The development of computer hardware was really very fast, but the relevant software changed and developed relatively slowly, and in many cases a version of the basically same, old software were used in the new computers even close to the Millennium, too.

This surprising situation (combining with some other extraordinary expectations on the Millennium) caused a special kind of social crisis, especially in the Western part of the world, first of all in the USA. According to the *scenario of the crisis* when the date goes from 1999 to 2000 many old computer software that has not been fixed will register the date - because of their two-digits year-representation - not 2000 but 1900 which will induce an escalation of technical problems in the infrastructure of the highly computerized society. This process will very probably produce a complete chaos leading to finally at a global corruption of the modern civilization.

The crisis situation produced an extended and widely popularized *public debate* about the reality and the perspective of the crisis including enormous amount of newspaper and journal articles, books, many special sites on the internet and programs in the electronic media. According to some popular analyses the Year 2000 computer problem has been the most significant and enormously dangerous technological difficulty in the history of mankind. In spite of this, many experts have emphasized a radically different opinion: the difficulty was not real, no significant danger was expected due to the date problem. The debate between the different groups of "experts" about the nature and treatment of the problem has been widely popularized, in this way the public was informed, however, the lay public was not able to estimate the reality of the risk and the possible consequences of the problem and certain hysteric and apocalyptic reactions were observed especially in the USA. Finally, the events took place in a rather quiet way and there were no any serious problems. Any significant signs of the final apocalypse were not diagnosed.

In spite of the fundamental social influence of this deep crisis only very few social, socio-psychological, psychological, ethical and philosophical investigations were elaborated until now. [Douglass Carmichael] Studying hundreds of *web pages* devoted to the problem [Yahoo!] here we would like to present some elements of a philosophical analysis of the "Year 2000" computer problem in order to demonstrate its most important social and ethical aspects and to contribute to the understanding of the problem with some ideas.

The escalation of the problem

At the beginning of the events (a few years earlier) the Year 2000 problem seemed like an enormous software *business*. It was widely advertised that the old versions of computer software are unable to treat the change of the date in the case of Y2K, so it is necessary to install new versions or at least fix the old versions of many software all over the world. Later (a few months before the crucial date) the problem liberated from this (software business) framework and became similar to a complete *social catastrophe* which can destroy the whole human (especially the Western) civilization: the dangers

appeared in the *personal life* of the citizens as well; the collapse of the networks of water, and of electricity supply, and of banking, moreover, the end of the modern city and/or society was visionized. How and why did the problem change so radically? It had clear social and ethical causes.

Our understanding would be probably easier if we could separate some relatively independent parts of the very complex social situation supposing that the Year 2000 problem was a complex problem of three - relatively separated - sub-problems: a technical-technological, a business related, and a social sub-problem. [Wheatley and Kellner-Rogers, 1999, Y2K: A People] Of course, their independence has only very restricted meaning - we suppose it just for the start of our analysis and we will realize their interrelatedness proceeding in the analysis.

The technical problem

The direct *technical problem* of the date representation in computers did not have any difficulty, for the most experts it was clear that this problem can be solved in a very simple way. (For example, for the right preparation of the home computers many simple advice's and programs appeared in the internet suggesting to control of this part of the problem for any person of the lay public.) So, from technical point of view, the only problematic aspect of the situation was the large number of fixing actions during a finite time period. But it was also clear that the most important computer systems have been fixed and checked in time, in this way the most parts of computer experts were calm and declared their optimistic views. However, essential groups of the lay intelligentsia did not trust these computer experts. Realizing the dimension of the technological task it was demonstrated that most technological projects did not get finished in due time, especially in the software industry, so it would be important to take into account the presumable technical, economical, social difficulties and to draw the public's attention to the risk and possible dangers. In this respect the crucial question is: the presence or absence of the *trust of the public* in the solution of the technical problem. How and why was this trust constructed or destroyed? In the case of experts their trust in the solution of a technical problem rest on their concrete or at least abstract knowledge about the topic. However, the lay public without relevant knowledge is surrendered to the public media which forms the public opinion in the problematic questions. It is very clear that the actors of media have also own goals which can be independent from the actual topic and many times influenced by their interests in sensation-creation to produce higher profit. So the construction and destruction of the public trust became a battlefield and a sharp struggle of the social actors for forming of the public opinion in question has been observed. During this struggle the technical problem was transformed into a problem of business and politics.

The business-related problem

The *business* related problem had many different aspects: the economic influence of the big software-business attracted money, the high level trade activity created by the apocalyptic forecasts, the continuous presence of trade and banking supplies, etc. The opinions about these problems were very controversial. [Meyer, Dr. Ed Yardeni, Y2K Book] For example, there were some forecasts about the economic crisis and some others about the economic boom caused by the Y2K problem, as well. [Matt Rosoff]

One of the most important phenomena was probably the appearance of the ideas and activity of the so called *survivalists*, who - due to the possible collapse of the trade systems - suggested to buy, to store, to supply practically everything which is important for the civilized life. [Y2KChaos] They have emphasized the possible risks of the date problem and with the ideological support of certain apocalyptic religious prophets and movements they have suggested to prepare to a social chaos saying that they are "dedicated to helping you prepare the worst, while hoping for the best". [Y2KChaos, The Year 2000] In this way the question of trust in the technical solution of the Y2K problem was directly related to the *trading activity motivated by a fear* of the end of civilization. The representatives of the survivalism were not basically interested in the solution of the technical problem of date but they were interested in a special managing of the fear of people. The basic purpose of their managing activity was, of course, making money. In this respect they had a strategy similar to that of the big software firms, but while the software firms earned a lot of easy money selling optimism and the hope of avoiding of the computer created problems to other firms, the survivalists earned money selling pessimism and some hope of survival to the disinformed lay public.

Here we would like to recall again to the central significance of the problem of public trust in its own technical environment and the continuous presence of this environment. Especially for the American people the possibility of *continuous use of supplies*, including shopping, banking, traveling, etc. has a very high value. They seem to be much more than simple economic activities, they have an important ideological, cultural meaning, as well, like to the high prestige idea of privacy. If something endangers this continuity they take it seriously, so the survivalists knew very well the fundamental American values.

However, all of these relationships formed an advantageous environment to the emergence of the social problem of Y2K.

The social problem

In about the last one-two year before the crucial date of 31 December 1999 the escalating technical and business problems transformed into a complete social problem. Of course, many people forced this development: they were the Y2K experts. Gary North, who is a propagandist of an apocalyptic religious system of ideas [Gary North] and Edward Yourdon, who is a computer specialist [Yourdon and Yourdon, 1998] had an important role in this process. We speak about social problem because the whole body of (American) society was influenced by or involved into the Y2K problem somehow, from the government to the individual people, from the entertainment to the basic necessities of life.

The *social problem* has been three different managing strategies: the survivalism, the critical opponents of survivalism, and the governmental strategies. The position of survivalism was characterized above. The critical opponents of the survivalist strategy (which emerged in a few months before the crucial date) pointed out its hidden business related aspect and criticized its pretended attitude. [Doug Ritter] They applied many times excellent humor and parodies and suggested more rational solutions of the Y2K problem. [Gary South, 100 STEPS] Among these solutions different versions of a new American dream appeared time to time: to rebuild real communities in the highly individualized society. [Petersen] The Y2K problem clearly demonstrated the interrelatedness of the individuals by the computer mediated networks. From this point of view the Y2K problem is an invitation to the cooperation of individuals.

The government wanted to demonstrate its efforts to prepare its computer systems and that of the other critical sectors of the economy and society, in this way to save the public trust in itself, especially in its high level problem solving abilities. There were a lot of well-demonstrated (and successful) problem solving-activity in every level of the political hierarchy. [U. S. Federal] In their strategy the problem had an international aspect, as well, especially in the form of criticism of the practice of other, not enough well-prepared countries.

Conclusion

The Y2K problem and its treatment has a very high significance for the social scientists. It became clear that the modernity have already transcended - at least in the USA. The modern computers build up into the social networks have a crucial role in the working of the postmodern network society. [Castells, 2000] A modern society would not endangered by the Y2K problem. The modern society can collapse only its details, and

not in an universal sense. The global collapse can be produced only by the *postmodern network society*. [Baudrillard, 1998] Earlier we had a practice to coexist with the restricted and reparable bugs of the modern society and the modern people did not think of the apocalypse because of the troubles of some modern machines. [Ropolyi, 1999] But now we experienced something different. [Fosket and Fishman, 1999] The serious anxiety of many people about the collapse of civilization is an important sign that in their thinking the postmodern network society represents already the civilized society. The actual running of the Year 2000 problem can be considered as a measurement process of the postmodernity of the present American society. The result of this measurement shows a high level of postmodernity around the Millennium.

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