

# Social Credit Systems: Prospects and Challenges of Overall Scoring

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# Social rating system

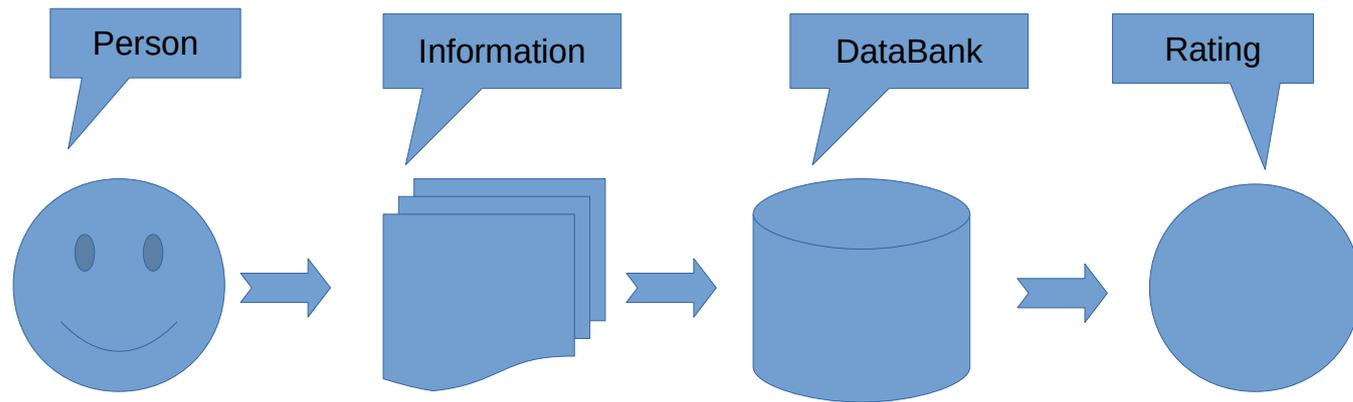
- We do not consider any really operating social credit system, but rather the concept of the social rating system as such.
- The idea of a social rating system is based on the calculation of the rating (score), which determines the level of trust in a citizen, based on certain facts.

# Social Rating System

Under the Social Rating System we mean an automated information system that:

- obtains certain data from data sources;
- processes data;
- stores data;
- analyzes data;
- based on the analysis of the data, assigns ratings to individual legal entities and individuals;
- taking into account the assigned rating and / or the analysis of the data, proposes an assigning or revoking any privileges and opportunities to citizens (the proposed decision is made or rejected with or without human participation, inside or outside the system).

# Social Rating Systems



# Prospects for the application of the social rating system

The social rating system can be part of a more complex system - the system of state management of human capital, on a national scale. Let's consider in what areas the social rating system can be applied.

# Prospects for the application of the social rating system - Electoral system.

Electoral systems have both advantages and disadvantages. A number of disadvantages of electoral systems can be leveled out using the social rating system. Suppose that the social rating system can recommend the most worthy citizens to participate in elections as candidates. With this approach, the social rating system can be used to improve, expand and deepen democracy, and not vice versa. The social rating system is one of the potential elements of “electronic (digital) democracy”.

## Prospects for the application of the social rating system - State and municipal service.

Based on the data of the system, it is possible to select and invite citizens to state and municipal services. Such an order could limit corruption effects in personnel policy, protect state and local authorities from candidates with a low social rating.

# Prospects for the application of the social rating system - Social pensions and benefits

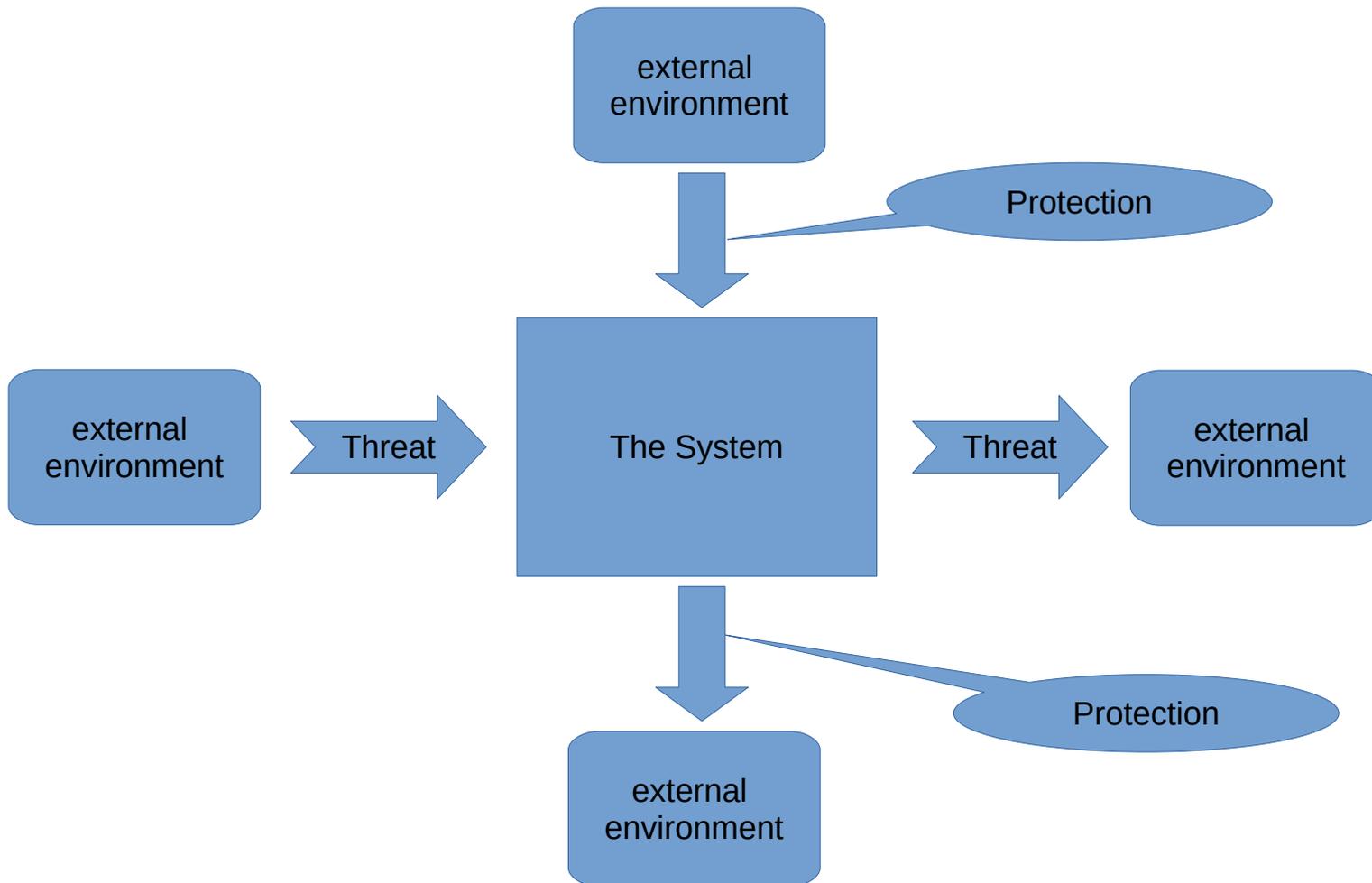
- The social rating system can be used to assign social pensions and benefits to citizens. It seems quite reasonable, although it requires discussion, the thesis that citizens with a low indicator of social rating should receive social pensions and benefits in a smaller amount than citizens with a normal and high indicator of social rating.
- The amount of basic income may depend on the rating of the citizen, which will ensure a fairer, more reasonable, socially motivated distribution of funds.

# Security factors and threats

Any system from the point of view of security can be considered in four roles relative to its external environment:

- the subject of protection;
- the object of protection,;
- the subject (source) of the threat;
- the object of the threat.

# Security factors and threats: four roles



# Security factors and threats - Protection

- The social rating system is in some way analogous to the characteristics of a citizen in digital form, obtained using modern digital technologies. This "characteristic", or rating, can be used to encourage a citizen by providing him with benefits, powers, privileges. The system ranks citizens not in the context of "rich-poor", and in the context of "worthy-unworthy" or, more simply, "good-bad". Thus, the Social rating system can be viewed as an additional circuit of society management, which, if properly used, certainly increases the degree of social justice in society and neutralizes some of the shortcomings of other circuits of society management.
- The System increases the level of trust in society.
- The deprivation / granting of certain privileges to citizens may be of a non-monetary nature. This solves the problem of different values of money for different people.
- The social rating system encourages citizens to behave well. Good citizen behavior reduces the level of threats, and therefore, reduces the cost of ensuring security.
- Reducing certain capabilities of low-ranked citizens (eg, gun ownership, car ownership) can protect citizens from relevant threats.

# Security factors and threats - Threat

- If configured incorrectly, the system can assign a rating to a citizen and issue incentives or restrictions that are inadequate to his real life and activities. This discrepancy can discredit the system and cause its rejection in society.
- Leakage of aggregated information on a citizen can harm both this citizen and persons related to him.
- The social rating system can cause certain deformations in the behavior of citizens in society. Citizens can change their behavior and take individual actions aimed at increasing their social rating, as well as changing the rating of third parties.
- If configured incorrectly, the System can prevent the rise of a citizen's rating from a state with a low rating, artificially increasing differentiation and contributing to the creation of a kind of "caste" society.
- In the activities of the system, errors and malicious actions are possible at all stages of collecting, processing and storing, evaluating the received data, and, accordingly, assigning ratings, assigning / depriving them of privileges. Errors can be both human and purely technical.
- The system can be purposefully used to discriminate against individual citizens or groups of citizens for one reason or another (or grounds).

# Security factors and threats - Threat object

- On the part of individual citizens and groups of citizens, whom this system can deprive of certain privileges, the system can be purposefully discredited.
- There may also be discrediting of the system by foreign states and groups of citizens who are unable or unwilling to introduce a similar system at home, but are concerned about the high efficiency of the system used by the competing country.
- Specially organized actions aimed at discrediting individual citizens can also be viewed as a threat not only to these citizens, but also as a threat to the Social rating system.
- Technical attacks on the Social rating system from outside the System are quite possible.
- Threats to the Social rating system from within are also possible, for example, in order to change the rating of some citizens.
- It is likely that this System may be exposed to the threat of being ignored by individual citizens (legal entities), which will make the sanctions imposed by the System on individual citizens ineffective and reduce the efficiency of the system's functioning.

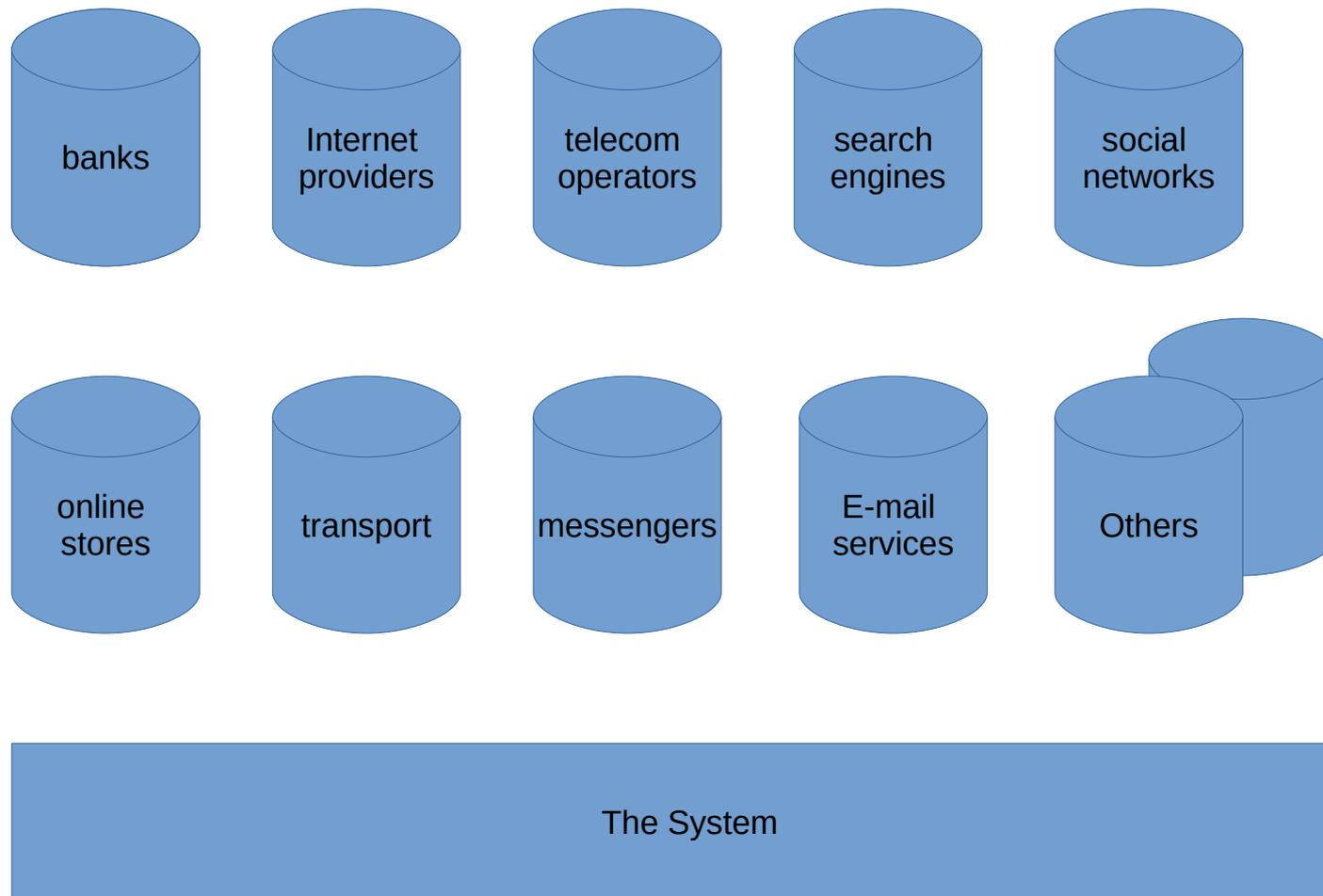
# Security factors and threats - Protected object.

- Protection against attempts to discredit the System. The essence of the System and its focus on the protection of conscientious citizens must be well explained to citizens, and the System itself must be understandable to citizens. Attempts to discredit must meet information opposition in the media field.
- Attempts to manipulate the rating by the citizens themselves, as well as by third (third-party) parties, must be suppressed. Otherwise, the effect of the implementation of the System may turn out to be the opposite.
- The System may carry a corruption threat if the employees serving the System have the ability to influence the rating of individual citizens. Accordingly, the design of the System should take into account this threat and minimize such opportunities.
- The System can be subject to various types of attacks of a technical nature, therefore, information security issues should have the highest priority.

# About criticism of the social rating system — new «big brother»

- They say that social rating system is a modern incarnation of "big brother", because it deprives people of their privacy. But the social rating system itself practically does not create any new data about a specific person, it basically only receives and analyzes data already available somewhere, collected by someone else. Data collection processes are also active in countries that do not have a social rating system.
- In modern conditions, talking about the inviolability of personal life is already meaningless, all life, including personal, is gradually beginning to acquire a public character.
- It is not the social rating system that deprives people of their privacy, but new technologies in the hands of people's everyday counterparties - banks, Internet providers, telecom operators, search engines, social networks, electronic communications, online stores, trade and transport organizations, and others.

# Information sources



# About criticism of the social rating system - «destroying social ties»

- They say social rating system will divide people, destroying social ties. It is likely that the opposite is true. Connections between people are disrupted by urbanization, people moving to cities, transition to a new way of life. When before, people lived in a village, village, town, small town, then everyone knew each other, worked, studied or had a rest together. The social rating system can play the role of a certain public opinion about each of the members of the society, which existed earlier and exists now in small settlements and disappears as cities grow.

## About criticism of the social rating system - «against democracy»

- They think that social rating system serves totalitarian, authoritarian regimes and is directed against democracy. The social rating system is just a tool, and the question is how to use it. The system, if handled correctly, can be used to improve, expand and deepen democracy.
- Based on the foregoing, the following conclusion can be drawn: in all the cases considered, criticism of the social rating system is predominantly emotional in nature.

# Feasibility of introducing a social rating system

In our opinion, the introduction of a social rating system is advisable if:

- ordinary, “traditional” systems of human capital management have become ineffective due to various reasons;
- technical capabilities make it possible to create an effective social rating system;
- there is an urgent need for an effective system of human capital management on a national scale.

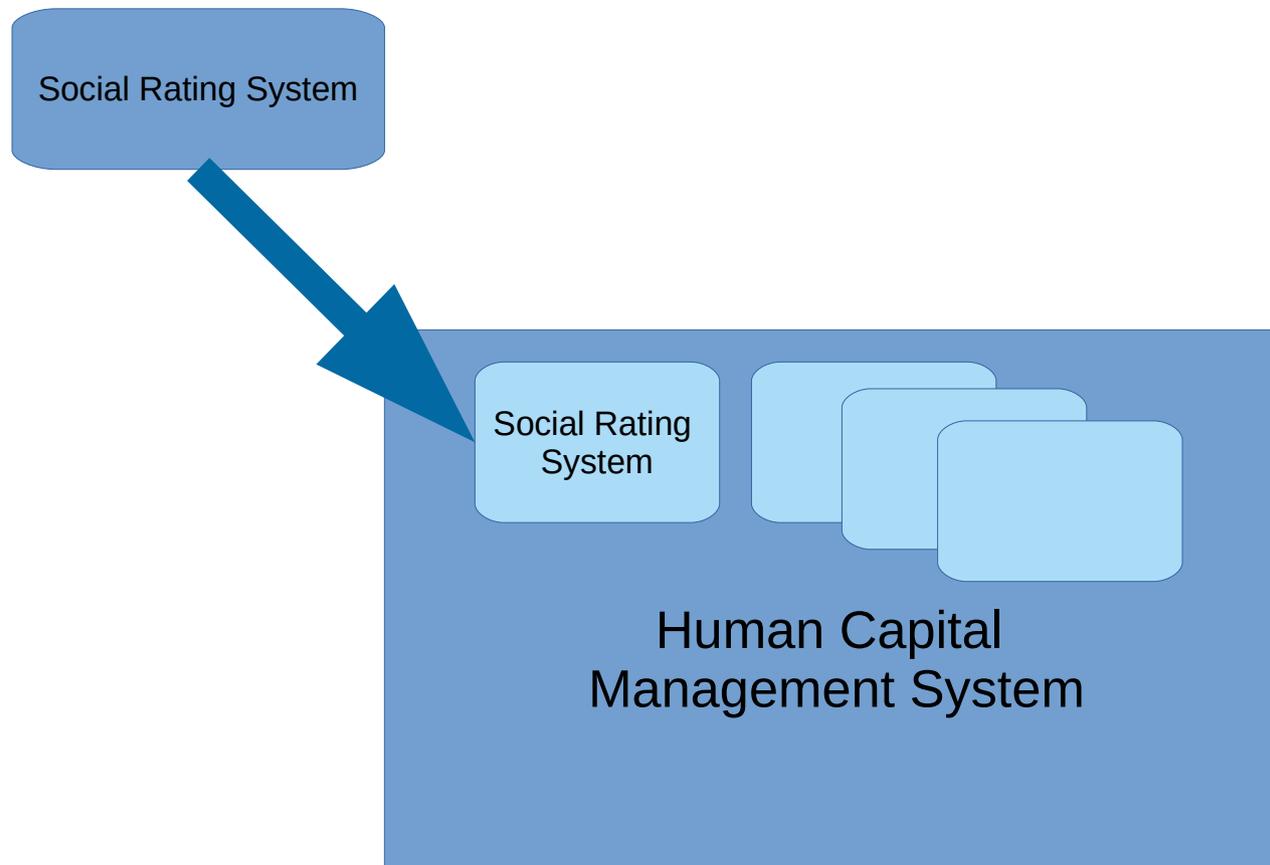
# The conditions needed for the successful implementation of the social rating system

- The key condition is the level of citizens' trust in their government. If the level of citizens' trust in the government is high, then the level of trust in the social rating system will also be high. If the level of trust in the government is relatively low, then the ratings that the government assigns to citizens will also have a low level of trust. In this case, the social rating system is highly likely to only interfere with the normal activities of both the government itself and citizens and businesses. It will also be a factor of irritation for citizens, and exert psychological pressure on citizens who will have a threat to decrease their rating.
- The second important condition for the successful implementation of the social rating system is the positive nature of the stimulation of the social rating system. This means that the system should give people more bonuses than restrictions.

# Prospects of the Social Rating Systems

- In our opinion, the social rating system has certain prospects, however, only the application of the social rating system for a sufficiently long time can determine its effectiveness in certain areas of use, in a particular state, and indicate the ways of developing the social rating system.
- It is quite possible that at the current levels of development and implementation of information and communication technologies, it will be difficult to create a highly effective social rating system.
- It can also be assumed that at the next stages of development of society and (or) technology, the social rating system will become unnecessary, or will undergo serious changes.

# System development prospects



Thank you for your attention