

# Professional self-development of the person in the system of social lifting

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## Abstract

The article proposes a resource model of a social community developed by the authors. Aim the study was the definition of theoretical aspects that allow predicting the main directions of the transformation of social community, which determine the formation of social request for professional self-development of the individual, as a manifestation of the activity of the social lift. The scientific novelty of the work is the structure of social society that reflects the resource approach, the basic principles of its change and the main criteria that allow the formation of forecast estimates transformation of the social hierarchy. The social community is considered by the authors as self-regulating system that is in competitive interaction with other similar systems. The main idea of the proposed resource model is the possibility of transforming social society under the influence of changes in the system of social hierarchy of managing resource flows. The main principles of the proposed resource model of social community are shown in relation to the organization of the education system. The main participants of the education system are singled out, the possibility of predicting, depending on the shift in the resource exchange between them, the education system's transformations are substantiated. In the proposed resource model, ensuring the stability of the social system is realized by the processes of social lift, to which the authors include the professional self-development of the individual. The proposed resource model of a social society makes it possible to implement a set of social planning measures for the development of society, minimizing the risks of critical surges and social transformations.

*Keywords:* resource model of social society, self-organizing social system, social lift, professional self-development, social hierarchy

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## 1. Introduction

Being a complex system of social communications, society generates certain hierarchical structures that determine the functioning of small social groups and individuals directly within a given social community. The social mechanisms emerging in society make it possible to ensure the continuity of adopted social norms and activate the processes of searching

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for and expanding knowledge. This includes regulating how knowledge is transformed, stored, and used. Understanding the mechanisms that form these hierarchy systems makes it possible to predict social outbursts and the dynamic restructuring of a social community. Currently, tasks related to managing the transformation of societies are becoming increasingly important, acquiring the status of critical technologies that determine further community development (Sorokin, 1992).

The progress of a social community is often viewed as inextricably linked to the functionality of its social lifts. In instances where a state experiences a period of stagnation, these elevators for the younger generation may fail to activate. This lack of mobility frequently prompts a migration of highly educated and talented young professionals to other nations in search of better living and working conditions. Consequently, only the modernization of the country can effectively reactivate these social mechanisms, which in turn facilitates widespread national development. Beyond broad growth, these lifts serve as essential tools for young people to realize their hierarchical needs and play a vital role in the construction of the overall social fabric (Kryshtanovskaya, 2021; Volkov, 2020).

A significant body of sociological research explores the effects of social lifting, including the specific causes and mechanisms that allow for its creation and management. This field is built upon the work of various influential scholars who have shaped the current understanding of social structures.

A foundational concept within this research asserts that social space is defined by both horizontal and vertical parameters, reflecting its complex multidimensionality and differentiation. Such differentiation is an indispensable requirement for the survival and operation of any social community (Sorokin, 1992).

The evolution of social lifts is frequently framed within the international academic community as a natural byproduct of industrial and technological progress. This perspective suggests that such mobility mechanisms emerge from a systemic necessity to adapt prevailing socio-economic models to meet the demands of modern development (Volkov, 2020; Zeer, 2006).

Nevertheless, the question of the root causes of the formation of social elevators remains relevant. Is this process controlled by representatives of a given society, or are these processes initiated by society itself as a complex self-regulating system? If so, to what extent is it possible to manage social elevators?

One of the forms of manifestation of the social lift is the professional self-development of the individual. In this regard, the increase in the demand for support for professional self-development clearly illustrates the readiness of society for some transformation. This readiness inevitably creates social tensions. These tensions activate social lifts, which can prevent the development of radical revolutionary processes in society.

Various perspectives have been identified to help understand how people grow professionally. One view treats this growth as a complex and open process rather than a simple straight line. In this scenario, as people improve their professional skills, they often undergo personal changes that transform how they fit into society as a whole. Another perspective takes a more specific look at the drive to reach the highest points of a career. This focuses on the individual's desire to keep developing until they achieve major professional milestones and high levels of excellence (Derkach & Zazykin, 2003; Zeer, 2006).

Another approach focuses on professional development through the lens of self-improvement and finding personal fulfillment in work. Here, the individual is seen as the main actor in their professional life, capable of much more than just performing assigned tasks (Mitina, 2004). They have the power to shape the social relationships around them

and can even influence how their entire work environment is organized.

Obviously, these approaches are updated as the emphasis shifts in understanding the mechanisms of social, psychological, and socio-cultural interactions between the individual and their professional environment. In this paper, the authors propose to consider professional self-development from the standpoint of the formation of social elevators by society. This resource model views society itself as a complex self-organizing system. At the same time, the formation of social lifts is one of the properties of social self-organization designed to maintain stability and competitive advantages when interacting with other similar systems.

In this regard, the main problem of this work is the definition of theoretical aspects concerning the formation and development of social communities as self-organizing systems. This includes the formation of a social demand for professional self-development as a manifestation of the activity of the social lift.

## 2. Methods

As the aim of this study, the authors consider the definition of the theoretical aspects of the resource model of social community proposed by them which determines the formation of a social demand for professional self-development of the individual as a manifestation of the activity of the social lift of society. The development of a resource model of a social community will make it possible to formulate predictive estimates of its development identifying the key aspects of emerging social contradictions and, as a result, the formation of social tensions. In addition, the model of the resource model of social community proposed by the atoms will make it possible to determine the mechanisms and degree of their impact on the transformation of social society through the controlled activation of social elevators. At the same time, the main objectives of the study are:

1. Analysis of aspects and system-forming factors that influence the organization of interaction between the individual and society;
2. formalization of the theoretical concept of the resource model of social community.
3. Development of a resource model of the education system.
4. Analysis of forecasting possible options for the development of the education system based on the analysis of the developed resource model.

The authors propose to consider the manifestation of system-forming factors that influence the organization of interaction between the individual and society based on the analysis of the processes of the education system. This area, like no other, allows us to fully assess the trends in the development of social community, the formation of its requests for updating the systems for obtaining transforming and storing knowledge as a mechanism for maintaining its integrity and competitiveness. The variety of models of education systems directly indicates the difference in approaches (objective, subjective) to the organization of social communities. The variety of well-known models of the education system is the result of compromises between the interests of various participants in the educational process. Specifically, Isaev (2006, 2011) and Isaev et al. (2013) analyze the contradictions arising during the implementation of training relative to the goals of its participants, characterizing the state as a socio-organizing system and the individual as an independent subsystem of society.

According to the findings for the state the main goals of building and functioning of the education system are:

1. Consolidation of the accepted system of values, as well as legal, moral, social and other forms of interaction between the subjects (individuals) of the state (ensuring

- the integrity of the state).
2. Ensuring the process of transferring preserving the accumulated knowledge within the society of the state (providing a set of functional capabilities of the state).
  3. Ensuring the process of clarifying existing knowledge and ensuring the search for new knowledge (protection against distortion of transmitted information).
  4. Ensuring controlled self-development of individuals (development of the state, provision of competitive advantages).

For the individual, the goal of education is the possibility of obtaining benefits in the conditions of the environment chosen by him (or given to him). In this context, by benefit we mean the result of some action of an individual that improves the conditions of his existence in a given environment. At the same time, we will agree that the benefit is not something only material and can manifest itself as some kind of moral encouragement of the individual as an increase (fixation) of his social status or in some other way acceptable and desired by the person. On the other hand, the learning process cannot but take into account the interests of the industrial sector, the continuous development of technics and technologies as well as the constantly changing market conditions for goods and services which generates uncertainty in understanding the professional competencies that a graduate of an educational institution must match.

To create a functional model of a social system, it is necessary to establish a shared platform that reconciles the diverse interests of all individuals involved in the educational process. The educational environment serves as this common foundation, as it is collectively shaped and organized by every participant. When viewed through the lens of system analysis, this environment can be understood as a collection of smaller subsystems consisting of local educational environments. Each of these local settings is created to fulfill the specific goals of a particular participant in the learning process. This analytical approach is based on the principle of categorizing the smaller subgoals that make up the primary overarching objective of the system (Gaides, 2005).

As the tendential processes emerging in these local educational environments intensify, they cover the entire education system as a whole. Consequently, changes in the educational environment become predictable; the identification of intensifying processes within the system serves as a basis for suggesting its potential further transformation. Or, on the contrary, considering the management of the education system as a result of artificial strengthening or weakening of the processes already existing in it, it becomes possible to correct its movements or purposefully transform the system.

Previous research has proposed an inertial model for educational development, which suggests that social systems are incapable of instant transformation Isaev (2006) and Isaev et al. (2013). The level of inertia within a system is directly proportional to its complexity; as the network of internal interactions between subsystems and external connections with other systems grows, the system becomes increasingly resistant to sudden change. Within this framework, social systems possess stable qualitative states known as Bases. These states are maintained by external and internal resource flows that allow the system to remain stable using its available energy sources. A qualitative transition from one social model to another is thus defined as a change of Basis.

To analyze these inertial properties, the concept of system mass is used to characterize the system's saturation and its adherence to specific functional restrictions. Furthermore, system action is understood as the functional expression of energy and activity that allows the structure to operate. Because every action involving the system requires an exchange of energy, the model introduces a generalized resource to measure these processes quantita-

tively. Finally, the center of mass is identified as the specific structural area where resource exchange between subsystems is at its most intense.

### 3. Results

#### 3.1. Development of a resource model of the social system

The fundamental principles of the proposed resource model are illustrated through the education system, which serves as a primary example of a social community. Within this framework, the education system is defined as a self-organizing entity whose operational dynamics, including its origin, external movements, and internal processes, are analyzed through the lens of energy exchange. Energy is conceptualized as a generalized resource essential for a system to maintain operational stability and achieve its existential objectives. Notably, this resource exists independently of the system; it flows through the structure, undergoes transformation, and is utilized by the system to facilitate its movements.

The formal structure of this model is predicated on the foundational definition of a system as a complex of selectively integrated elements that coordinate their functions to achieve a specific, useful result, which is recognized as the primary system-forming factor. Building upon this definition, the operational logic of any system is governed by four fundamental axioms:

1. *Purposefulness*: Systems maintain a constant and singular general goal.
2. *Goal-setting*: The primary objectives of a system are established by external forces rather than internal ones.
3. *Functional performance*: To achieve its designated goals, a system must engage in specific, targeted actions.
4. *Independence of results*: The outcomes produced by systemic actions exist as entities separate from the systems that generated them.

Following these axioms, the model distinguishes between specific types of systemic organizations that define the social environment:

1. *Social system*. This is defined as an organized totality where the constituent parts exist in a state of mutual interdependence, meaning any modification to one component necessitates adjustments throughout the entire functional structure.
2. *Self-organizing system*. This represents a self-adapting structure that optimizes control processes by modifying its own configuration, which may involve the activation or deactivation of specific subsystems or the qualitative reorganization of control algorithms and subordination schemes.
3. *Open systems*. These are adaptive structures characterized by extensive connections with the external environment, facilitating the exchange of matter and energy through localized sources and sinks. In the context of self-organizing systems, these exchanges typically occur via bulk sources and sinks distributed across the local areas of the system.

To operationalize this theoretical framework and provide a quantitative basis for analysis, the model utilizes the following leading concepts:

1. *Resource*. This is a conditional metric that provides a quantitative characterization of systemic interactions at both internal and external levels. It exists independently of the system structure and is transformed to power systemic movements.
2. *Mass of the system*. This is a quantitative value representing the total intensity of the system's internal and external resource exchanges.
3. *Center of mass*. This refers to the specific structural region where the intensity of resource exchange between internal subsystems is most concentrated.

The main idea of the resource model is predicated on the fact that any system existing in a stationary mode consumes a specific volume of resources. Within shared spatio-temporal coordinates, identical resource variants may be required by neighboring systems, making a system's success dependent on its ability to maximize its own resource capture or restrict acquisition by competitors. Furthermore, the existence of a system defines certain resource types that could be claimed by rival structures if the system loses its integrity or collapses. Through these interactions, a system accumulates the experience necessary to counteract the internal and external factors that tend to increase its entropy.

This process of maintaining stability is fundamentally an energetic one. Every action or interaction within a system necessitates energy expenditure because the connections between systems, or between their internal elements, represent a physical investment of power. From a systemic perspective, energy serves as a quantitative measure of these interactions. Consequently, the connections that form the structure of a system are not merely abstract links but are essentially energetic concepts that determine the system's functional capacity (Isaev, 2006, 2011; Isaev et al., 2013).

### *3.2. Basic provisions of the resource model of the social system*

The development of a social entity is viewed as a sequence of transitions between stable, stationary states (Isaev, 2008). Each stable state, or Basis, represents a condition where the system effectively resists destabilizing influences. While in this state, the system actively consumes and transforms captured resources into experience, which strengthens its internal structure. Once a critical threshold of this experience or energy is reached, or when external conditions shift, the system evolves into a new stable configuration.

This evolution aligns with broader principles of open systems, which maintain their integrity by organizing energy from their surroundings (Glensdorf & Prigogine, 1973). In this process, the system retains and structures useful energy internally while releasing disorganized energy back into the environment. This internal structuring allows the system to build the experience necessary for its continued operation and governs its eventual transition between different stable states.

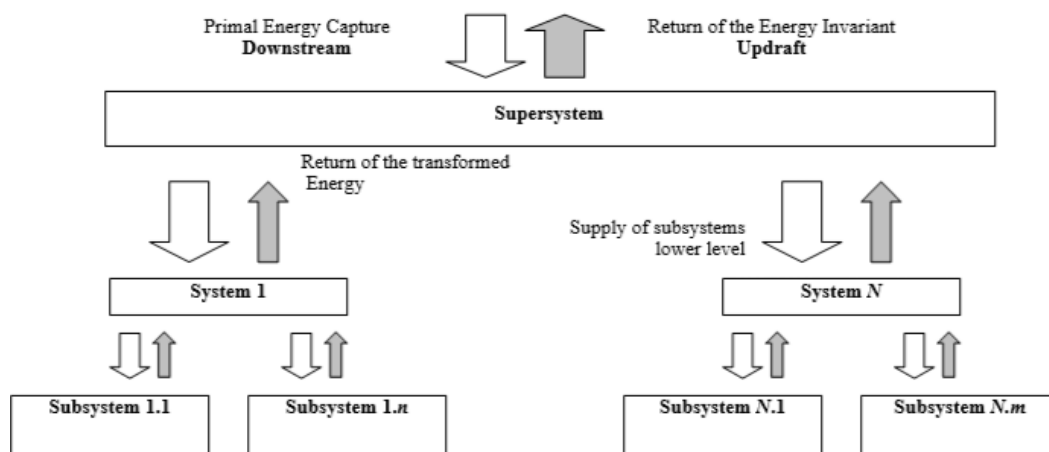
Thus, we define two main scenarios for the development of the system:

1. Capture as much resource as possible. The limitations of this process are competition with other systems.
2. Increasing the efficiency of transformation and redistribution of resources: internal between the elements of the system and external interaction with other systems. The inefficiency of the mechanisms of transformation and redistribution of the resource means an increase in the energy deficit in the system, which leads to the loss of its integrity by the system.

The system is represented by a certain set of elements for which the hierarchy law is applicable (Figure 1). Each of the elements that make up the system transforms the resulting version of the resource. At the same time, part of the resource received by the element of the system is spent on maintaining its functioning, and the rest is redistributed between neighboring subsystems of the upper and lower levels. The resource exchange algorithm in this case is seen as consisting of bidirectional flows:

1. Descending:
  - (a) The system performs the primary capture of the resource, the success and multivariance of this resource is determined by the structure and mass of the system.
  - (b) Upper-level supersystems transform the received primary resource into its other

- required forms, which are perceived by lower-level subsystems.
- (c) Subsystems of the lower level, receiving this version of the resource, also transform it for transmission to their subsystems.
2. Ascending:
- (a) The subsystem transforms the resource coming from the lower level subsystems and transfers it to the upper level supersystem.
- (b) The supersystem of the upper level, similarly, transforms the received resource and participates in resource exchange with external systems in relation to it.



**Figure 1.** Internal and external interactions of the social system.

The main driving factor in the resource redistribution scheme is the multivariance of its transitions. Imagine that the existing system, having only a limited set of appropriate mechanisms, is not able to process (absorb) the energy surrounding it and presented in all its diversity. As a result, the systems are integrated into a certain supersystem, forming new qualities and new, inaccessible to each individually, energy processing mechanisms.

Assuming the opposite leads to a contradiction. If the system possesses the ability to process all available energy, capturing it without restriction, it would deprive destabilizing mechanisms of necessary energy. In turn, the absence of such mechanisms makes the accumulated experience of counteracting them unnecessary. Therefore, the system is forced into a new internal redistribution of resources where integration factors activated by entropy-countering processes are no longer a priority. This leads to a subsequent transformation of the structure, characterized by the exclusion of unclaimed subsystems and the resulting loss of various qualities required to counter entropic processes. Further, the smaller systems formed as a result of this decay, being unable to master the total energy, tend either to suppress competing systems or to integrate with them. This process reflects the regularity of the transition of a system into a supersystem.

Based on the above, we can draw the following conclusions:

1. For the functioning of systems of the same level, a resource coherent in its composition is needed.
2. The exchange of identical resource options between systems of the same level is impossible, since it does not change the state of the systems and does not affect the performance of their functions (the system achieves its general goal), but, since, like any movement, it requires the expenditure of part of the energy, it becomes energetically unfavorable for both systems.
3. If there is a need for the interaction of several systems of the same level (there

are differences in the flows of their resource exchange), then a need is formed to clarify the hierarchy that exists in their interaction. At the same time, the following transformations of the structures of interacting systems are possible: resubordination (i.e., a system with a smaller mass is built into the structure of a system with a larger mass, becoming its subsystem), or a union of systems, if the masses of the systems are the same (their resource exchange flows are separated into an independent supersystem, with which the required resource exchange);

4. If the effectiveness of the supersystem in terms of capturing and distributing resources decreases, then a shortage of energy is formed in the system, which leads to the transformation of its structure, the destruction of inefficient internal and external connections and a number of its subsystems, the energy released in this case is redistributed, new structural connections are formed and external interactions.

The conclusions made allow us to assume that the processes observed by us during the functioning of systems, in particular, the system (systems) of education, should be characterized by a certain periodic pattern determined by the synthesis and decay of such systems (subsystems), that is, definitely, if we take into account the inertia of processes, some wave character. The latter means that it is possible with a certain accuracy to predict the stages and direction of the further development of social systems, including educational systems.

It should be emphasized that in this case we are talking about self-organizing systems that can not only transform the resource provided to them, but also evaluate the effectiveness of such transformation, as well as the possibility of using other energy invariants (other resource flows), systems that have a certain freedom of movement and some internal energy reserve to carry out these movements. In addition, when discussing self-organizing systems, one should assume that they also have internal memory mechanisms (i.e., the ability to accumulate experience of their development).

### 3.3. Structure of the system

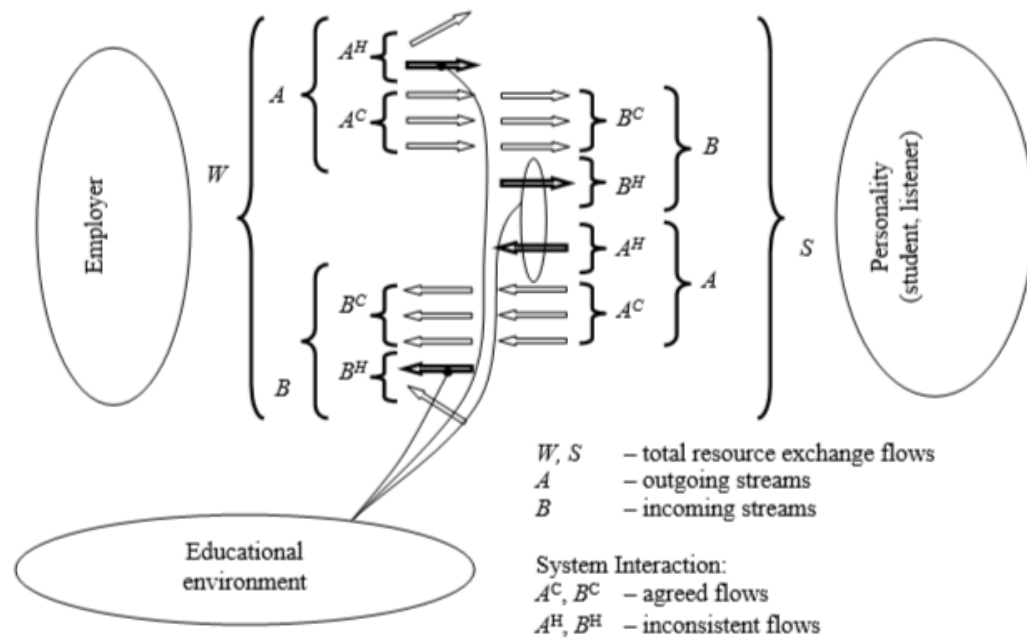
Let two systems be given: the Employer and the Person. The resource model of the social system is shown in Figure 2. Each of these systems is characterized by its external resource exchange flow,  $W$  and  $S$ , respectively. In turn, the external flow of the system can be represented by two differently directed components: directed towards the system (flow  $B$ ) and  $A$ ). These flows determine the external interaction (movement) of both systems. Assume that streams are some collection of resource types. Then we will agree to designate the same options for the resource of flow  $A$  (outgoing flow) of the Employer system and flow  $B$  (incoming flow) of the People system as agreed, while

$$ACW = BCS,$$

and unequal components of external flows are designated as inconsistent

$$BHW, BHS.$$

It is obvious that the probability of the identity of flows  $A$  and  $B$  in both systems is small, since the mass of systems is not equivalent. Under the mass of the system, we mean a certain amount of resource that determines the possibility of internal (existence of the system) and external (interaction of the system) movement of the system. For example, for social systems, the value of commodity exchange can be used as one of the options for determining their mass.



**Figure 2.** Formation of the educational environment.

So, the probability of identical flows  $A$  and  $B$  of two interacting systems is small. Therefore, in order to ensure the existence of a particular system, a part of its flow that is inconsistent with the flow of the system interacting with it must be redirected to another system; a decrease in its mass (i.e., a decrease in the margin of vital stability).

To interact with the system, the Employer Person must offer it some resource invariant required by this system. Let in some case the Person does not have such resources (does not have the required set of professional competencies), then the systems under consideration, the Person and the Employer, seek to create a certain supersystem (the Educational Environment), delegating their interaction functions to it.

At the same time, the functions of the newly formed system become the development of mechanisms for transforming the energy resources of these systems: the Person and the Employer to coordinate their resource exchange flows; let's define this as the purpose of the Educational Environment. In this case, the energy exchange will be the greater, the greater is the identity of the functioning of the Educational Environment of this goal.

When the components  $A_i$  of the flow  $W$  and the components  $B_i$  of the flow  $S$  are equal, the need for the organization of the Educational Environment decreases and, if these flows are identical, it disappears altogether.

The discrepancy between the parameters of resource exchange between the considered systems  $W$  (Employer) and  $S$  (Person) leads to the need for their greater interaction with the formed supersystem (energy exchange with the Educational Environment increases, which leads to the organization of new transforming interactions) to the connection of additional systems: the subsystem Teacher, Technological Sites and State. The resource model of the education system is shown on Figure 3.

We detail the understanding of the organization of the educational process from the position of the resource model we are considering. When organizing training, one way or another, the following tasks are solved related to the definition: what to teach, whom to teach, who will teach, where to teach, how to teach?

The answers to the above questions determine the composition of the interacting systems and the types of resources that these systems exchange when organizing the educational process (Table 1). These systems can, in turn, can also be considered as structural units (i.e., subsystems, of some supersystem, e.g., the Education System). Since the probability of the identity of the flows of interaction of subsystems, we repeat, is small, then another system should appear as part of the Education System (the Educational Environment), the purpose of which, as mentioned above, is to harmonize the components of these flows. The educational environment itself can be defined by a set of implemented educational programs, each of which separately requires the connection of the resources of the subsystems indicated above.

**Table 1.** Systems and resources of the educational process.

| No. | Defining question | System              | Resource     | Flow label   |
|-----|-------------------|---------------------|--------------|--------------|
| 1   | What to teach?    | Employer            | Material     | (W)ork       |
| 2   | Who to teach?     | Person              | Human        | (S)tudent    |
| 3   | Who will teach?   | Teacher             | Intellectual | (T)eacher    |
| 4   | Where to teach?   | Technological Sites | Spatial      | (U)niversity |
| 5   | How to teach?     | State               | Legal        | (L)aw        |

Then the total flow of the Education System will be determined by the flow of the educational environment system:

$$Q = f(W, S, T, U, L),$$

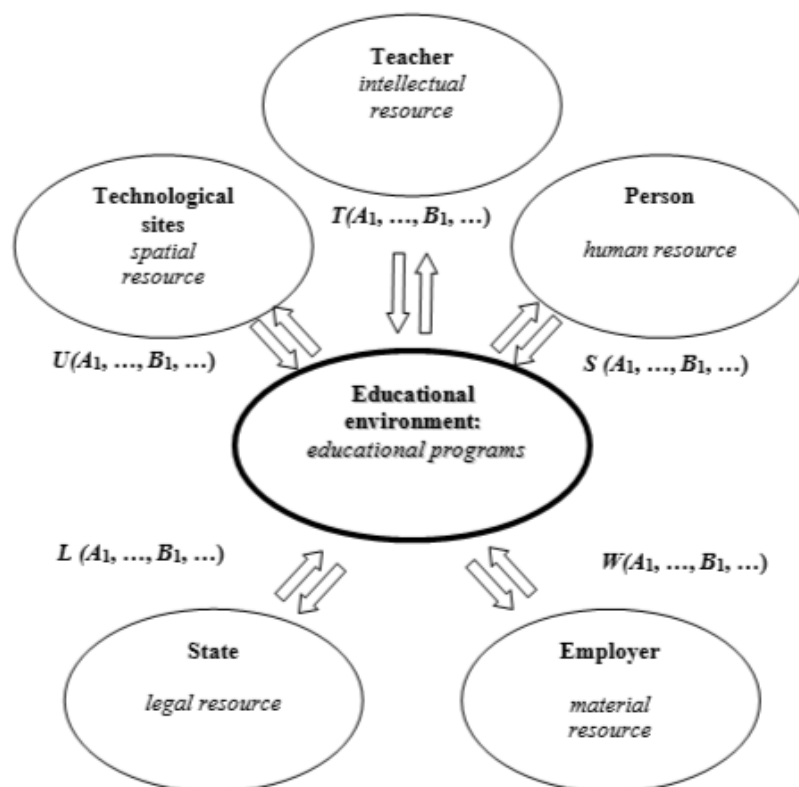
where  $W(A_1, A_2, \dots, B_1, B_2, \dots)$  is the flow of resource exchange that determines the interaction of the employer (which may be the state) and the given educational environment,  $A_1$  and  $A_2$  are formalized parameters of the resource exchange of the subsystem Employer with educational gray (e.g., the requirements of the employer to the set of professional competencies of the employee) to stimulate the training of the required specialist), and  $B_1$  and  $B_2$  are formalized parameters of the counter flow of resource exchange from Educational Environment to Employer.

For subsequent flows, the parameters  $A_i$  and  $B_i$  determine the composition of the resource exchange between the corresponding subsystems and the educational environment;  $S(A_1, A_2, \dots, B_1, B_2, \dots)$  determines the interaction of the student's personality (Person) and the educational environment;  $T(A_1, A_2, \dots, B_1, B_2, \dots)$  determines the interaction with the sources of an intellectual (possibly informational) resource;  $U(A_1, A_2, \dots, B_1, B_2, \dots)$  determines the interaction of the educational environment with technological platforms (e.g., universities, educational complexes, training centers of enterprises); and  $L(A_1, A_2, \dots, B_1, B_2, \dots)$  determines the interaction of the state as a legislator (a subsystem that fulfills the order of society to support and develop the socio-cultural environment) and the educational environment.

Let us generalize the functions of the subsystems of the Education System. The Teacher subsystem provides for the human subsystem the development of an information resource. At the same time, information content, methodological developments, author's programs and other educational developments are supplied to the Educational Environment. The implementation of training requires a certain spatial resource, training equipment, training technologies, and so on, which is offered as an external resource by technological sites. As such platforms, both the resources of universities with their educational and laboratory

facilities, and the resources of other educational or non-educational institutions that are ready to provide the premises, equipment, information technologies and other resources required for organizing the educational process can be used. In turn, the functioning of the educational environment system allows you to form its own component, positioning it among other similar competing systems (i.e., educational programs and educational technologies).

The proposed model for building the Education System does not have a fixed center, that is, the Educational Environment as a system can be represented by a number of its subsystems, for example, local educational environments formed by each of the participants in the educational process separately, and then the center of mass (concentration of resource exchange flows) of the entire system. The Educational Environment shifts as one or another stream becomes more active. This statement underlies the fractal model of building the Education System, defining the principle of its self-similarity with the basic element, i.e., individualized educational environment (Isaev, 2008). Graphically, the proposed model for building the education system is shown in Figure 3.



**Figure 3.** Resource model of the functioning of the social system

#### 3.4. Analysis of possible options for the development of the education system

Based on the theoretical framework of the resource model, the functioning of the education system is governed by two primary behavioral principles:

1. The expansion of systemic mass, which serves as a fundamental mechanism for enhancing vital stability and resilience.
2. The minimization of systemic movements in accordance with the principle of least action, often referred to as the Maupertus principle, where the system naturally seeks to reduce its operational costs and energy expenditures (Gaides, 2005).

In accordance with the above principles of the resource model, there are three options for the functioning of the social system. Options for the functioning of the social system are shown in Table 2.

**Table 2.** Social system behavior strategies.

| No. | Strategy description  |
|-----|---|
| 1   | <p><i>System behavior:</i> System development<br/> <i>Flow ratio condition:</i> <math>&lt; B</math><br/> <i>System mass:</i> Increases<br/> <i>Commentary:</i> The system increases its mass by increasing the number of its subsystems by reducing the outgoing component of the resource exchange flow.</p>   |
| 2   | <p><i>System behavior:</i> Stationary mode<br/> <i>Flow ratio condition:</i> <math>= B</math><br/> <i>System mass:</i> Unchanging<br/> <i>Commentary:</i> The system is on the edge of stability.</p>   |
| 3   | <p><i>System behavior:</i> System destruction<br/> <i>Flow ratio condition:</i> <math>&gt; B</math><br/> <i>System mass:</i> Decreases<br/> <i>Commentary:</i> The system is forced to spend part of its internal resource on maintaining external resource exchange while destroying its internal subsystems and connections between them, thereby freeing up the required resource.</p> |

*Labels:*  $A$  = the outgoing flow, which determines the flow of energy exchange of this system with the educational environment;  $B$  = the incoming flow, which determines the flow of energy exchange of the educational environment with this system.

The education system, like any other self-organizing system, seeks, under the influence of external factors, to optimize its structure in order to resist external and internal entropy processes. Within the framework of the proposed resource model of the education system, it is convenient to analyze the possible transformations of its internal structure by analyzing the shift in the center of mass of the system (i.e., the shift in the localization of the activity of interaction of its subsystems).

Possible, depending on the localization of the activity of the internal resource exchange of the education system on one of its subsystems, are the following options for its development:

1. Transfer of the center of mass of the Education System to the subsystem Technological sites (educational institutions).
2. Shifting the emphasis of resource exchange (center of mass) of the education system to the subsystem Employer.
3. Transfer of the center of mass of the Education System to the subsystem Teacher.
4. Shifting the emphasis of resource exchange to the student (the Human subsystem).
5. Public administration.

Let us briefly consider the qualitative characteristics of the proposed options for transforming the structure of the education system (Isaev, 2006; Isaev et al., 2013).

*Transfer of the center of mass of the Education System to the subsystem Technological Sites.* In the system of higher education, technological platforms will be understood as the structure of higher educational institutions. That is, in this variant, universities close on themselves most of the energy exchange, forming the basis of the educational environment. In this scenario, it is logical to assume that the curricula offered by universities will be designed, for the most part, for the mass training of specialists with a similar set of professional

competencies, since it is precisely mass production that implies significant savings in resources, reducing the cost of training a single specialist. It should be expected that the terms of study in this option will be increased, since this allows increasing the mass of the university (the stability of the university) involving more teachers and students in the educational process. The need to predict the ways of further development of the education system in the considered version is excluded and any attempts to change something in the existing system will certainly experience great opposition, since it will be perceived by the existing system as a threat to its existence. As a result, the implementation of such a variant of building the Education System is the preservation of fundamental knowledge (i.e., universities work to train personnel for the university). At the same time, the labor market is experiencing a shortage of highly qualified specialists with a highly specialized set of professional competencies, which universities are unable to fill in this scenario. As a result, the employer is forced to look for other forms of specialist training, which reduces the number of those wishing to study at universities, as a result, resource exchange decreases, which leads to an increase in its deficit at the internal level, an increase in internal disagreements and conflicts, and in ultimately, the collapse of the existing education system. Thus, the focus of resource exchange is shifted to the Employer subsystem.

*Shifting the emphasis of resource exchange (center of mass) of the education system to the subsystem Employer.* When the center of mass within the Education System shifts toward the Employer subsystem, the educational process becomes increasingly selective because of the immediate demand for highly specialized personnel. This implementation often results in accelerated training programs that prioritize practical application over broad fundamental content. While the role of predictive assessment grows, its impact remains limited by the employer's preference for minimizing the long-term costs associated with staff retraining. Consequently, the educational process exhibits low mobility, based on the rationale that retraining specific personnel for emerging tasks is more cost-effective than providing an initially broad set of professional competencies. This dynamic elevates the importance of the teacher as a practicing specialist. As these educators recognize their critical role, they gain independence from the employer and begin to establish localized educational environments. Ultimately, this allows the teacher to centralize the major flows of resource exchange within the education system.

*Shifting the emphasis of resource exchange (center of mass) of the education system to the subsystem Teacher.* As an example, the creation of scientific schools, the organization of a research laboratory for a prominent and fairly authoritative scientist or designer. With this version of the implementation of the Education System, one should expect a potentially higher rise in the level of the scientific potential of the society, but subject to the presence of knowledge crystallization centers.

*Shifting the emphasis of resource exchange to the trainee (subsystem Human).* The educational environment is formed by the student through the inclusion of various teachers and technological platforms in its structure. At present, this trend is becoming more and more obvious; there is a rather intensive increase in demand for distance education (Isaev, 2008). At the same time, short-term training programs become more interesting for students, which allow them to be included in the system of labor relations as soon as possible. At the same time, the dynamism in the choice of the educational trajectory is high up to the loss of its stability, which is explained by the significant dependence of its formation on short-term fluctuations in the labor market. The predictive assessment of their development for students, for the most part, is short-term and is sharply limited by the time and material resources of the latter. With the activation of this variant of the transformation of the

structure of the Education System, one should obviously expect a massive rejection of fundamental knowledge, loss of the integrity of knowledge, and a sharp decrease in the scientific potential of society. In addition, the danger of social conflicts rises significantly, which is provoked by the short-term individualized forecasts of their life trajectories by students.

*State management of the education system.* On the scale of the state, the role of prognostic assessment as a factor in the development of the state and reducing social tension in society is significantly increasing. However, a more than expected, negative consequence of direct state management of the education system will inevitably be a significant increase in formalization and, consequently, document flow, which will entail an increase in the volume of non-core activities. The latter will require more and more resources, diverting it from performing a direct function (i.e., training). As a result, the departure of highly qualified specialists from the Education System and the subsequent decline in the quality of education.

#### 4. Discussion

When evaluating individual educational attainment as a primary catalyst for social lifting, one must address the inherent conflict between the collective interests of a social formation and the personal ambitions of its constituents. The competitive success of any specific group within a social structure, and by extension its relative position within the social hierarchy, is fundamentally determined by the efficiency with which it fulfills its designated functions.

The activation of social lifts within a formation ensures that the most capable individuals are directed toward performing essential functions. However, as specific social formations identify their interests and solidify their positions, a system of counteraction often emerges. This systemic resistance effectively blocks individuals from outside high-status formations from attaining similar positions of influence. Conversely, personal interests are often aligned to prevent any social lifting that does not directly contribute to an individual's own career advancement. This creates a dynamic where the higher an individual rises within the social hierarchy, the more resistance they exert against the upward mobility of members from competing formations.

This phenomenon is particularly evident in bureaucratic environments, which are fundamentally structured on hierarchy and the dominance of upper-level management over subordinates. The internal organizational factors of such environments are in direct conflict with the principles of open competition. Consequently, officials within these structures are often predisposed to resist competitive development, as pervasive competition complicates management by making the environment less predictable and more prone to risk. This instability ultimately reduces the efficiency of traditional administrative methods, leading those in power to preserve the existing hierarchy at the expense of social migration (Razu & Filippov, 2007).

Within the framework of the resource-based education system, several distinct mechanisms can be identified that obstruct the flows of social migration:

1. The systematic promotion of low-level education through the creation of favorable institutional conditions that demotivate the pursuit of higher academic tiers. This mechanism is operationalized by minimizing the required consumption of financial, administrative, and temporal resources for entry-level programs while simultaneously enhancing their perceived attractiveness through incentives such as scholarships, housing provisions, and various social supports.
2. The establishment of prohibitive conditions that actively prevent access to high-level education. These restrictive measures include the use of explicit structural

barriers where members of specific social formations are barred from seeking higher educational qualifications, often manifesting as caste-like restrictions or the rigid imposition of educational quotas.

3. The implementation of sophisticated social mechanisms designed to increase the resource intensity of elite education. This is achieved by inflating tuition fees and requiring supplementary expenditures for institutional maintenance, specialized uniforms, and the mandatory organization of a personal workspace.
4. The imposition of logistical and administrative burdens that serve as deterrents to social mobility. These include the high costs associated with geographic relocation and travel, as well as the creation of complex administrative and legal procedures designed to complicate the application process.
5. The use of stringent input controls and psychosocial barriers to exclude outside social formations. This involves requiring specialized non-essential knowledge or difficult-to-obtain certifications, alongside the cultivation of a psychologically and socially adverse environment for individuals attempting to transition between social tiers.

Accordingly, professional self-development gains significance as a primary mechanism for activating social lifts. These lifts are intended to mitigate social contradictions within a community and facilitate the ascent of new actors to the higher levels of the social hierarchy. Such societal transformations generally strengthen competitive advantages when a community interacts with comparable social systems.

The proposed resource model provides a clear framework for interpreting these patterns of social mobility within the established hierarchical structure.

## **5. Conclusions**

The authors propose a resource model of a social society. The basis of the proposed model is the idea of the resource interdependence of the participants in a social society. Each social society is identified by its system of social hierarchy adopted in it. In turn, the social hierarchy that has developed in society regulates the access of society participants to obtaining and using its resource base. The most important of them, of course, are information and knowledge resources. Considering a social society as a complex self-organizing system, the authors of this work pay special attention to the processes of formation of a social hierarchy, assuming that they ensure competitive interactions of a social society with other similar self-organizing systems. Within the framework of the proposed resource model of a social society, the transformation of the processes of internal resource exchange of exchange is realized by the processes of activation of social elevators. The authors also include the processes of professional self-development of the individual to such social lifts.

Within the framework of the proposed resource model of a social society, the transformation of the processes of internal resource exchange of exchange is realized by the processes of activation of social elevators. The authors also include the processes of professional self-development of the individual to such social lifts.

The implementation of the basic principles of the proposed resource model of social society by the authors is considered in relation to the formation of the education system. The main participants in the education system are identified. The possibility of predicting the behavior of a social system, in particular the education system, is shown. The options for the development of the education system in the context of the variability of the processes of resource exchange between its identified main participants are presented.

According to the authors of the article, the resource model of social society proposed by them makes it possible to more accurately interpret the changes taking place with society,

determining long-term trends in its development. The proposed approaches make it possible to implement a set of measures for long-term social planning, avoiding or minimizing factors that provoke excessive social tension.

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