

# Informatization of education and person-oriented principle: how to teach everyone in a similar way but differently

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**Annotation.** The contents of the given article reveals pedagogical basics of dialogization of student's education due to informational educational technologies, development of heuristics student's skills to realize the personal approach in education.

The person-oriented sense of telecommunications in the educational process is the opportunity for the pupil to create "one's own" in the dialogue with "other people's", to develop an individual educational path.

**Keywords:** *monologue education, heuristic education, informatization of education, reflexion, the principle of person-orientation.*

In the epoch of global world changes, together with the widening of external limits of the person, depersonalization and standardization of the main spheres of his activity, the person-oriented principle in education is becoming more and more significant, which means to elicit, reveal and actualize the person's potential (Khutorskoy, 2012). The key concepts of this principle are "self-realization" and "self-cognition" having "self" as the similar compound part of the words deal with the problem of the learner's independent activities organization in education. In fact, the issue of creating the learner's individual educational trajectory "is based" on the formation of his / her competences, these of a "builder", but not those of information "storekeeper". And in this respect the principles of information and education technologies synthesis for teaching the learner to study independently are crucial: to set the goals in their study cognition on the basis of their personal peculiarities, to choose the appropriate forms and methods of learning, to determine the importance and rate of studying some academic disciplines, to reflect on one's educational activities.

But whether the combination of two opposite in their essence concepts as “depersonalized information technologies” and “the person” can be realistic? Is the learners’ self-realization with the help of informative technologies, “extending” their presence in the world possible? It has been written quite a lot about the problems of informatization of education (Khutorskoy, 2001; 2008; 2012). However, there are some questions remaining vital up till nowadays: how interconnected the distance is as a physical space between all the participants of the education process and the distance as an apartness of transmitted information from the student; what principles is distance education based on; in which way does the selection of its content happen for the organization of the learner’s independent work?

“If the previous technological improvements, such as radio, television, typography, transport, etc. were more or less linear extensions of anatomical or physiological potential of a human being, the Internet involves the extension or even emergence of essentially new higher forms of psychic activity” (Elemin, 2013, p. 74). And indeed, the changes in today’s fast-changing globalizing world affect directly the structure of human personality. The West European culture has been formed on the notion of the antique personality. Therefore, it has always been notable for its reflexivity, capability to sensitize one’s own boundaries. However, nowadays the scientific and philosophical tradition and the personality concept, created in Ancient Hellas have become obsolete to a considerable degree. “Today’s personality ceases to be understood ontologically and begins to include different senses and concepts of the personality” (Rozin, 2010, p. 118).

Expanding the boundaries of the person’s individuality leads to the fact that the conventional unit of thinking has become not a thought but communication. A thought always gives rise to a word, communication produces a message. A message is not directed to the continuation of communication, to the joint recognition of the truth, which is the case in a dialogue, but leads to the profound recognition of another person and that of oneself by means of the other. A message sets the trajectory of *information exchange*, turning communication into a polylogue - a number of the unidirectional (monologic) flows which are not often connected with each other by a plotline. “Belonging to none” nature and impersonality of the polylogue messages mean the “disintegration” of communication, loss of motivation for communication and self-knowledge (Korol, 2011).

Degeneration of communication is revealed in its loss of individuality and character, emotion and style, in a set of clichés and word-symbols. At the same time there happens a loss of linearity in stating and expanding of the plotline of communication which becomes more and more “fragmental” and multiple, “hypertextual”, clichéd. Not only semantic, but also temporal disconnection of the participants’ statements becomes evident – it is always possible to choose a necessary sentence (question) out of the context and refer one’s own statement to it without being involved into the process of meaning exchange with the interlocutor. In fact, there is no dialogue as an extended in time and space plotline in the means of telecommunications.

G.-G. Gadamer, the well-known philosopher, in his article “Inability to talk” reflects upon the issue: why the art of conversation is disappearing. “Don’t we observe nowadays in the life of our society a gradual monologization of human behaviour?” (Gadamer, 1991).

The monologist nature of the forms of communication and the person’s behaviour in today’s informational society “is fed” by the monologist nature of the educational system: the content of education is regarded as the experience intended to be transferred to the learner and later retained. Such a transfer seems “not to consider” the learner – his/her objectives, meanings, individual peculiarities. It is not the experience which is transferred, but the information being “no one’s” and therefore “another’s” for the learner” (Korol, 2009). However, knowledge acquisition, its depth and width are inseparable from *learning the ways of getting it*. What is the value of the knowledge received from the “ready-to-be-used” information? Is it possible to teach the learner to think unconventionally, to see the situation with “their own eyes”, instead of “another’s”, if the educational process is reduced to the transmission of the prepared in advance and selected “standard” information in the form of rules, schemes, classifications, theorems, regularities? Without the learners’ reflection on the content of their activities and the results received it is impossible to overcome their estrangement from education (Krajevsky, 2007).

The transmissive nature of education is *monologic* in its essence and it is revealed in educational standards, curricula, educational literature, as well as in the educational process (Khutorskoy, 2008). The learner, as a rule, does not play an active, but a passive role at a lesson, caused by the dominating role of the teacher in the dialogue where the learner follows the teacher’s logic. The matter is that the learner’s own interest expressed in the form of a question “fades” and does not have any continuation or development, since the teacher always has a “master plan” of conducting a dialogue. The teacher, formulating his / her own objectives of the lesson, in the dialogue “leads” the student to the necessary result, known in science and described in the textbooks (Korol, 2012, p. 8).

Leading the student in the dialogue to what is “necessary” is similar to transmitting the information. Therefore, the “teacher–learner” dialogue due to the leading position of the teacher has the nature of a monologue and does not contribute to disclosing the learner’s identity completely, his ability to listen and hear the interlocutor, to plan one’s educational activities and reflect on it. And there is no surprise here, as soon as the “teacher – learner dialogue is only an handy instrument of fulfilling “the orders” of the higher order authorities of the education system: meanings, objectives, content directed to sharing the so-called knowledge (it is not the knowledge or experience, which is shared, but information).

Monologism in education hinders the “construction” of individual peculiarities of a creator which determine the aptitude for self-development in the fast-changing world. It does not contribute to learners’ motivation for educational activities either, but increases the amount of content of the subjects, exacerbates the problem of learners’ health preservation, it does not correspond to the communicative component of modern life, resources and the Internet technologies (Korol, 2009).

Monologue in “basic” components of the content of education defines the monologist nature of forms and methods of teaching. For this reason the mode of distance learning used mainly for organizing the individual work is the information exchange between a teacher and a learner (or a group of learners) with the help of electronic networks or other means of telecommunications. The student is ascribed the role of the recipient of some informational content and the system of tasks for its retention (Khutorskoy, 2001).

In the monologist education system the information component has no essential high-quality instruments for the development of the learner’s personality because of the defining transfer nature of the education system itself. For example, the usage of information technologies for evaluating knowledge, skills and habits leads only to checking the information, and the unlimited growth of borrowings from the Internet demonstrates the development of the learner’s stereotyped thinking.

The monologist nature of the education system amplifies its information component and reduces its knowledge one (Baejeva, 2013, p. 80). Modern education “has gone over to impersonal training “from a person to an information resource”. The absence of the borders generates the amounts, and therefore “the amount of information contained on the Internet sites actually reduces the real content to a minimum value” (Emelin, 2013, p. 78). At the same time, the expansion of the learners’ personality boundaries caused by increasing amounts of information and communication reduces the moral and knowledge content of their education.

If one considers education as the transfer of some amount of information, then the gradual loss of the content of education becomes evident, as well as that of motivation for training and communication, emotional and value-laden attitude of the learner to the world.

However, it is the informatization of education that provides the possibility to solve to the key problems of the education system, similar to the case of any illness where there is an element that can help to recover from it. We are talking about the importance of the individualization in learners’ training and the possibility of creating a personally significant product, in other words, *the possibility of the learner’s creative self-realization by means of telecommunications*.

The monologue as the “knowledge transfer” reflects the concept of a person as a “tabula rasa” which should be filled in with some inscriptions from outside. But all children are different; they have different abilities, interests and missions. A human being is a “seed” that cannot be shaped like some piece of clay or filled in with somebody’s writings – it is necessary to create the conditions for the growth of the seed (Khutorskoy, 2001).

The change of the nature of education from being monologist and “reflective” to dialogic one is based on giving the learners an opportunity to cognize the outer world on the basis of their individual peculiarities. In that way, one creates his own educational product, different from the products of other students. In fact, it goes about the learners’ self-realization and creating their own individual educational trajectory.

One cannot realize oneself in socio-cultural experience, to be more exact, in the “ready-made” and “correct” information, which is transferred to the learner from outside (from the teacher, from the textbook). Similarly, it is impossible to realize oneself through “reflection” as imitation and copying. The learner’s self-realization is possible while cognizing the objects of the outside reality and creating their own educational product, different from other learners’ products.

The sphere of the reality as a fundamental educational object is common for all the learners object of cognition but it provides each of them with a personal result of their world cognition, and eventually, with an individual educational trajectory. The fundamental educational objects are the key issues reflecting the unity of the world and concentrating the reality of the being cognized. The real educational objects embrace, for example, natural objects (water, air, etc.), objects of culture (texts of fiction, architectural constructions, works of art), technical devices (computer, telephone, TV-set, etc.). These are the key points of the main educational spheres, due to which the real sphere of cognition exists and the ideal system of knowledge about it is formed (Khutorskoy, 2003).

The primary (subjective) result of the learner’s understanding of some sphere of reality should have a “mirror” for it – *its cultural and historical analogue*. These are fundamental human achievements expressed in the form of concepts, laws, principles, methods, hypotheses and theories.

By comparing the primary subjective product with the cultural and historical analogue the learner forms his generalized educational product different from other learners’ products. The product has both the external side (e.g., the formulated hypothesis, the definition of some phenomenon, the composed plan of some experiment, an algorithm, one’s own classification of the properties of some chemical substance, etc.), and the inner side (changes of the cognitive, creative, organizational-activity characteristics of the learner’s personality). This enables each learner to realize himself, form his individual trajectory while studying the subjects and topics common for all. Such kind of the learner’s activities aimed at creating the educational product is called *heuristic* and leads to his *creative self-realization* in the process of education (Khutorskoy, 2001, p. 47). Heuristic training is viewed as the learner’s educational activity directed towards the formation of his *own* meanings, objectives, content and organization of education.

The meaning of the heuristic education has a dialogic “shade” to a considerable extent, since generating knowledge together with the experience by the learners from the inside is possible only in the heuristic dialogue of the learner with the outside social experience and the creation of their own educational content on this basis (Khutorskoy, 2008, p. 113). Heuristic dialogue is regarded as putting questions by the learners to the outside educational environment at each stage of their educational activities: at the stage of setting the goals, choosing forms and methods according to their cultural, historical, psychological peculiarities, reflexive activity (Khutorskoy, 2012, p. 20). In fact, individualization of education arises at the transition from the teacher’s monologue when the

learner as the listener plays the role of an object, to the heuristic dialogue of the learner with the outside world.

The person-oriented principle in education actualizing the learner's productive activities combines his socio-cultural and subjective experiences per se, enables the learner to create "his own" in the dialogue with "another's" and establish his own educational way first and later his own way of life. In person-oriented type of education the teaching materials do not perform the role of the "heritage" the student acquires, but the role of the "environment" for creating the learner's own educational content in the form of his own creative products. The amount of knowledge accumulated by the humankind, to be exact, the accumulated information is not rejected by the learners but serves them as the educational environment for comparing "their own" with "the others". Such a reflexive comparison of the learner embodies the hermeneutic approach to education, including "the process of continuous formation of human rationality", as well as "the environment of educational experience which shows the new understanding of motivation for education" (Filonov, 2012, p. 159).

The demonstration of the learner's educational production is the educational principle of "one learner's product estimated by another learner". The majority of personality socialization theories are based on the person's evaluation of his own deeds, beliefs in comparison with other people's (Festinger, 2000). Human self-awareness is more complete when the person understands what he or she is not. One can do this only if there is "another" being. The person-oriented sense of telecommunications in educational process lies in the possibility of learners' self-realization, in the comparison of "his own" and "another's". *Hence one can draw the following conclusion: personality meanings, knowledge, as well as the learner's motivation and creativity arise due to their reference to identity. In the comparison of "one's own" and "another's" the learner can find "the way to himself", which represents moral beginning in contrast to "the expansion" of the learner's outer limits by means of telecommunications, which can be identified as "the way from himself".*

Similarity and uniformity of students' learning results, as well as the estrangement of "re-products" from the student's needs and values eliminate the motivation for the "horizontal" student-to-student communication. Motivation for communication appears during the demonstration of heterogeneous person-significant products, when there arises an opportunity to compare one's own product to somebody else's. The opportunity for the student to compare two or more similar "another's" products does not ensure any motivation for communication, neither for a personal principle in education.

The monologue "is closed" for the student's personality. Therefore, monologist education makes use of the "closed" tasks when the answers are known in advance (to the teacher, given in the textbooks, in the Internet, etc.). Fulfillment of the "closed" tasks is determined by the transfer of the "correct" information to the student and not by the involvement of the student in the independent research of the objects of reality, peculiar "pieces of the world", perceived by the students subjectively, in their own way. Such repro-



ductive activities on mastering and subsequent reproduction of information aren't aimed at the student's self-realization and the creation of one's own educational product. The result of the closed task fulfillment is the student's answer which bears the characteristics of the "re-product" of human achievements on the given topic of the lesson.

The usage of the open tasks in educational process solves the problem of motivation for dialogic communication. Here below are some examples of the open contest tasks (which do not have only one solution known in advance and are aimed at the student's creative self-realization) in social networks.

*English language contest.* TWITTER. Twitter is a popular Internet micro blog service that enables the users to keep a public Internet diary with text messages limited to 140 characters. Sign in Twitter – <http://twitter.com> – and you can imagine the day of your participation in the contest in the form of a twitter diary in English, where you can tell to your foreign friends about your day's activities, the tasks you fulfilled, achievements gained in mastering English. Don't forget about the message limits. Leave your address in Twitter for the jury.

Open tasks are based not only on the knowledge part described in the standard but on the student's creative self-realization (Korol, 2009). By solving an open task each student creates his own educational product, different from the others'. Open tasks eliminate one of the most important causes of losing motivation for communication – the absence of personality self-realization mechanisms. M.S. Kagan stated that "there exists a doubtless connection between motivation for communication and the degree of self-exposure in the process of it" (Kagan, 1988).

There are two types of the students' educational product. The first one is the content of the particular task fulfilled, students' judgments, the reflexive notes of the lesson participants, the accomplished tasks of the distance teacher, etc. The second type is the *communicative* product. The educational *communicative* product is the students' questions, answers, judgments, arguments and counterarguments (Korol, 2011).

For example, the student's answers to every task fulfilled are placed by him in the specially created web-forum of the lesson. In this case, the student who has completed the task acts in two roles, both of discussions organizer and their participant. The communicative activity of the learner in the framework of these two roles is his leading activity and is assessed by the teacher.

Horizontal Internet dialogues perform not only a motivational, but also a reflexive, and therefore, emotional and value communication function of the educational process participants (Rean, 1999). After all, reflection means the separation of knowledge from ignorance, awareness of one's own personality limits, which is a necessary condition of students' independent work organization.

The possibility of the student's creation of his own educational product (e.g. the aims of the lesson, the result of the task completed, reflection, etc.) puts forth new questions to those who elaborate the educational content, e.g. what the duration of Internet-lessons is; the optimal structure of a distant class, etc.

It is common knowledge that time limits of the lesson are defined by the meanings, objectives of education and its content. It means that in the monologist education the duration of the lesson is defined by *the intensity and the duration* of information transmission (a vertical communication channel – “teacher-student”), as well as by sensitizing, retention and reproduction of information. However, the student’s educational product is not the sum of information transferred to him; the quality of the student’s individual educational product is influenced by the interactivity of all the participants of the lesson. For example, according to a number of social psychologists point of view, group discussion generates twice as many ideas as compared with the situations when the same people work independently. At the same time the collective product of a group (e. g., some decision) is defined as more precise than individual products (decisions, judgments) (Rean, 1999).

In the conclusion it is worth mentioning that the typical point of view concerning the educational opportunities of the Internet which “has weakened the intellectual creativity of the student and replaced it with the usage of the raw and unchecked information” (Baejeva, 2013) is quite appropriate, but only with the monologist educational system. The pedagogical experiment on the implementation of the heuristic education system based on a dialogue in full-time, full-time and distance, and distance forms of education organized the innovative activities in about 2,000 schools of the CIS countries. There were 26 782 learners of all age groups (1–11 forms, students) participating in the experiment. The results of the pedagogical experiment showed that the use of telecommunications in the learner’s heuristic activities helps to develop organizational and creative features with senior pupils, cognitive and creative features with junior pupils; cognitive, creative and organizational features of the secondary school pupils (Korol, 2009, p. 34).

The synthesis of information (by means of the Internet) and education technologies (of the creative product orientation) provides the interaction between the personal and state components of the educational content, the combination of mastering the basic education content of educational spheres by the students and forming their own individual educational trajectory. The potential of individualization in education, disclosing the student’s personality characteristics can be realized effectively by means of educational system informatization. Here the profound philosophical implication underlies: informatization and individualization of education should be a unified inseparable process rather than “coexist” separately.

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# Mokymo proceso informatizavimas ir mokymosi individualizavimas: kaip mokyti kiekvieną tuo pačiu būdu bet skirtingai

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## Santrauka

Straipsnyje atskleidžiami besimokančiojo euristinės veiklos filosofiniai-metodologiniai ir didaktiniai mechanizmai, remiantis informacinių ir mokymosi technologijų sinteze, kuri padeda nusibrėžti individualią mokymosi trajektoriją.

Žmogiškumo principai ir telekomunikacijos mokymosi procese sudaro galimybę mokiniui sukurti „savo“ ir „svetimo“ dialogą. Asmeninės mokinio savybės, žinios, motyvacija atsiranda dėl jo atsigręžimo į savo esmę.

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**Esminiai žodžiai:** *euristinis mokymas, savarankiška lavinimosi veikla, švietimo informatizacija, refleksija, žmogiškumo principas.*

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