## IV. PEDAGOGICAL AND PSYCHOLOICAL SCIENCES, CULTURAL STUDIES AND JOURNALISM

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## STRUCTURAL AND FUNCTIONAL MODEL OF SELF-EDUCATIONAL COMPETENCE OF FUTURE SOFTWARE ENGINEERS

**Introduction.** The analysis of scientific literature on the problem of formation of self-educational competence (SEC), definition of its essence and structure has shown that there is an open question as for the contents and organization of the development process of self-educational competence, which calls for creation of a pedagogical model of formation of SEC of software engineers at Higher National Technical Institutions.

A model is an artificially made object in the form of a scheme, physical constructions, sign forms or formulae, which is similar to the object (or phenomenon) and reproduces in a more simple and general way the structure, qualities, interconnections and interrelations between the elements of this object [1].

A special way of modelling is the creation of an educational (pedagogical or material) model. An educational model is a variation of a scientific model that is intended to be used in the educational process. It is used to provide educational and methodological help to teachers and students during the acquisition of knowledge, skills and abilities on a particular subject [2, p.90].

**The objective of the paper.** The aim of the modelling in the current research is to create a theoretical model of a pedagogical system of the formation of SEC of future software engineers and identification of pedagogical conditions of this model realization within the limits of an organized studying.

The developed pedagogical model is the methodological basis of the process of SEC formation of students-programmers. We consider that for our research it is necessary to create a model of structural-functional type, which demonstrates the comprehensive structure of internal subordinance of subjects, functional complex of interconnected and cooperative blocks of the model. Each block in the model is a structural unit, which is connected with other structural units.

The aim of the formation of SEC is to teach future software engineers to rationally organize their own cognitive and searching activity. Taking into account this aim, we should allocate the components that open the ways of achieving the aim and identify the content, methodological support of the process, pedagogical conditions, degrees of SEC achievement based on the grounded criteria and the expected result.

The model of formation of future software engineers SEC consists of four blocks: aim, methodological-normative, organizational-procedural and resultative-evaluative.

The *aim block* includes the social procurement (professionally competent specialist in software engineering), aim (to provide the purposeful formation of SEC of future software engineers as a complex quality of a personality) and tasks that make the aim specific (formation of the need in continuous self-development, development of motivation to self-education and formation of values, acquisition of methods to realize self-education).

The *methodological-normative block* forms the theoretical base of the research and makes the methodological ground for the process of SEC formation. It is represented by the complex of methodological approaches, principles and normative and educational basis.

The following, *organizational-procedural*, block determines the stages of formation of each of SEC constituents, organizational and pedagogical conditions and methodological support, all of which stimulate self-educational activity of students in the process of professional education.

The *resultative-evaluative block* provides the analysis of the changes process in students' acquisition of skills in organizing self-educational activity and evaluation of the results of the set aim achievement. This block includes the development of the criteria of SEC formation and determination of its levels and indices. It also includes the evaluation of the result of the formation process of SEC of future software engineers.

**Conclusion.** Under the conditions of following the identified in the research principles, adequate provision of grounded pedagogical conditions by the complex of corresponding methods and forms, the result of the model realization is the formation of higher levels of self-educational competence of future software engineers.

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## INFORMATION SOCIETY AS THE ENVIRONMENT OF HUMAN

Information and information resources take central place in modern society, and activities of both, individuals and individual groups, increasingly depend on the degree of their awareness and the ability to make effective use of available information. Today, information is one of the most important strategic and managerial resources alongside financial, material and human resources. Its production and consumption form the basis for the effective functioning and development of various spheres of public life, whereas rapid development and dissemination of new information and telecommunication technologies takes the form of a global information revolution that has an increasing impact on politics, economics, governance, education, science, culture and other spheres of the society life activities, both within the state borders, and in the world as a whole [3].

The processes of the society informatization are accompanied by the emergence of new industries, new trends in scientific research and culture. These changes, have a complex impact on the whole society and lead to significant changes in the productive and spiritual life of people.

Exploring the outer world, a person constantly deals with information. It helps proper assess events that occur, make deliberate decisions, and find the most beneficial options for their actions. Information is necessary for the modern person not only to create material and spiritual goods, but also to live a healthy lifestyle, to be able to survive in the constantly changing conditions of modern society, in order to form a certain economic, social, political and moral position [2].

However, in the current context of information reality that goes far beyond pure information and technical characteristics there are significant changes in the behavioral standards and values of the individual. The reality of the information society imposes new requirements on the modern person. First of all, the ability to continuously learn, find, adequately perceive, analyze, process, transmit and efficiently use huge amounts of new information, and create their own, qualitatively new information. It should be noted that the realization of these processes is