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INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE PROCESS OF TEACHING CITIZENSHIP EDUCATION

У статті розглянуто проблему впровадження інформаційних та комунікаційних технологій (ІКТ) у суспільствознавчу галузь освіти. Подано аналіз останніх досліджень щодо використання ІКТ у процесі вивчення громадянської освіти у школах. Охарактеризовано напрямки використання ІКТ у громадянській освіті. Представлено чотири основні способи поєднання громадянської освіти та інформатики. Виокремлено форми використання ІКТ в освітньому процесі.

Ключові слова: *інформаційні та комунікаційні технології, громадянська освіта, суспільствознавство.*

В статье рассмотрена проблема внедрения информационных и коммуникационных технологий (ИКТ) в обществоведческую отрасль образования. Представлен анализ последних исследований по применению ИКТ в процессе изучения гражданского образования в школах. Охарактеризованы направления использования ИКТ в гражданском образовании. Дан анализ четырех способов сочетания гражданского образования и информатики. Выделены формы использования ИКТ в образовательном процессе.

Ключевые слова: *информационные и коммуникационные технологии, гражданское образование, обществоведение.*

The article examines problems being encountered in the process of implementation of information and communication technologies (ICT) in the realm of education, specifically in the segment of social sciences. The article provides an analysis of latest researches conducted into the matter of ICT usage in the process of teaching citizenship education in schools. It undertakes to characterise the directions in which the ICT may be used in the process of citizenship awareness fostering. Four main ways are presented in which citizenship education and

information technologies may be interconnected. Forms of ICT usage in the educational process have additionally been duly highlighted.

Key words: *Information and Communication Technologies; citizenship education; social sciences.*

The issue of citizenship education has long been the most important and the most urgent issue in the life of the state and in the life of a separate personality, given the fact that social awareness and social activity of the country's citizens is the very factor crucial to its strength and stability. This issue has emerged as part of the agenda a long time ago – way back when the firstmost country on our planet came into being, effectively bringing along the then-novel idea of citizenship. Historically, it has been evident – from the experience of that part of the world which we commonly deem and call developed and whose example we attempt to emulate – that the development of a system of social institutions forming civil society was an indispensable element for the construction of nations and establishment of democracies. On the other hand, the state forces its citizens to comply with certain requirements and demands that a range of duties should be fulfilled in order to protect the state organism as a whole as well as each particular individual.

Upon entering the global information society, Ukraine faces an immediate need to expedite the development of the its secondary educational system by way of using information and communication technologies, creating a common educational environment, and increasing the efficiency of data exchange. One feature characterising the present stage of the development of society is the rapid penetration of the aforementioned novelties into all areas of public activity.

The following authors have dedicated their academic researches to the issue of usage of ICT in citizenship education studies: L. Dukh [6, p. 104], O. Kucher [8], O. Hrytsenchuk [4] et al.

In a tutorial entitled «Citizenship Education: Theory and Methodology of Learning» aimed at the students of pedagogical universities and attendees of qualification enhancement courses (Chapter entitled «ICT in the Process of Teaching of Citizenship Education», L. Dukh stresses the importance of the usage of ICT in citizenship education. The author also provides a characterisation of the directions in which ICT in general and its Internet-related components in particular may be used in the process of citizenship education [6, p. 104].

O. Kucher, the author of a research entitled «Using ICT to Form Civil Competence among Senior Pupils» asserts that the ICT are increasingly becoming a powerful tool of pedagogical influence and, due to their unique properties, allow young citizens to develop their communicative and socialisation skills – especially during their work online – as well as enable them to substantially increase the possibility of individualisation and differentiation in the studying process owing to the fact that each pupil/student is assigned a PC which performs the function of his/her personal tutor [8].

Foreign experience in the field of implementation of information and

communication technologies in the academic realm of social sciences was the subject of academic investigations conducted by O. Hrytsenchuk. In her work, Ms Hrytsenchuk focuses upon the theoretical, methodological and legislative substantiation for implementation of ICT in the system of secondary education in Western Europe and the USA; generalises the strategic approaches to the usage of ICT in the disciplinary subjects related and/or being part of social sciences and outlines the prospects for their development [4].

The purpose of the present article is to prove that it is necessary to apply information and communication technologies in the processes of teaching and upbringing conducted by educational institutions – specifically, in the process of citizenship education.

The innovative information and communication technologies (ICT), ever since the moment of their appearance, have become an integral part of the contemporary political system within the society – namely, audiovisual mass media, being the very carriers and firsthand distributors of information, are a permanent factor influencing the life of society; modifying moral, legal, and political aspects of society's vital functions; and, finally, affecting the political socialisation of an individual – both positively and negatively.

Usage of information and communication technologies in the processes of teaching and upbringing managed by contemporary schools is a policy that has been theoretically justified. One substantial step leading to the implementation of ICT-related ideas and prospects in the realm of education was the adoption of the Conception of the State Education Development Programme for the years 2006 to 2010 [10]. By and large, the purpose of the mentioned Programme is to find solutions for problems existing in the present education, as stated in the Conception, specifically: «enhancement of the quality of education and upbringing, innovation-based development, adapting individuals to the socially oriented market economy, integration into the European and global educational environments, providing equal access to high-quality education, improvement of the mechanism for governance and funding, provision of social care to all participants of the education and upbringing process» [10]. The mentioned problems may be partially solved «if the education and upbringing process undergoes informatisation and computerisation». Practical educators, researchers and academic scholars – in Ukraine as well as abroad – are constantly seeking new and efficient ways in which information and communication technologies may be implemented in the content of education and used by educators in an efficient fashion [4].

Alongside the normative and legal substantiation for the process of implementation of ICT in the education, the academic community of educators also undertakes to render conceptual, theoretical, and methodological support to the process in question. In their attempt to outline the educational paradigm of Ukrainian education; being aware of the fact that «new challenges demand an adequate modernisation of our educational system which is the chief factor influencing the regeneration of society and culture, promoting successful human activity and urging citizens to incessantly perfect themselves» [3, p. 22], Ukrainian

scholars have created the «White Book of Ukrainian National Education», edited by V. H. Kremin. The «White Book» is a fundamental academic research highlighting the main problems of modern Ukrainian education and determining efficient ways and means for their solution [3, p. 185]. Chapter One entitled «General (Vertical) Strategies for Educational Development in the Information-Based Society» focuses on the problems which the education faces in the conditions of information-based society. The White Book is a product of joint effort of more than 78 scholars, including 14 Full Members and 11 Correspondent Members of the Ukrainian National Academy of Pedagogical Sciences as well as 25 Doctors of Sciences and 23 Candidates of Sciences. In the opinion of Professor V. Yu. Bykov, Correspondent Member of UNAPS, «the combination of traditional pedagogic techniques and ICT enables educators to increase the efficiency of the development and enrichment of natural skills and capabilities that individuals being the objects of the education and upbringing process possess. Usage of these technologies in the process of education creates additional conditions and enables the emergence of new targets, thereby updating the content of the educational process and allowing to achieve ever better results in the education activity and provide each pupil and student with possibilities to form and develop his/her own educational trajectory» [2, p. 48].

In contemporary pedagogy, both in Ukraine and abroad, it is easy to notice that attention is increasingly being drawn to subjects from the realm of social sciences. Since the late 20th century, many problems have started to surface in new dimensions with «open» issues related to educational realm duly raised thereby. These issues included teaching disciplines categorised as social sciences. Processes of schooling and educational upbringing required an update of their core historical knowledge as well as introduction of new subjects and courses, such as citizenship education, basic philosophy, economy, law and suchlike. Flexible ICT technologies, upon their introduction in the realm of education, are expected to trigger recurring revisions and updates in the content of educational materials [4].

The educational branch of «Social Sciences» expands on the essence and patterns within social phenomena and processes which have taken part in the process of the historic development of humanity in general and the Ukrainian nation in particular. It also fosters the pupils' ability to analyse the historic events and assess them, this or that way, individually and independently. Citizenship education which provides the content for the realm in question – specifically, its social and legal aspects aims to invest the pupils with traits characterising a patriotically-minded Ukrainian citizen. The branch allows the pupils to get familiarised with the ideas of humanism, democratic values, and notions originating from miscellaneous social sciences (such as history, philosophy, sociology, law, economics). It allows embedding a social picture of the world in the pupils' conscience [1]. Tasks set out by Ukrainian legislative documents stipulate that pupils are to develop a critical way of thinking, acquire an experience in the realm of emotional and appreciative activity, foster their socialisation capabilities, cherish their human and national values, adopt an active stance in their life and so on. General content-related vertical axes of the educational realm are as follows: human individual – human individual, human individual – society, human individual – nature. Structural components of

the educational realm include the history of one's native region, the history of Ukraine, world history, law, economy, philosophy, and citizenship education [7].

Historical illustrations inlaid within a lesson at school may become more exciting and absorbing if the material being studied includes embedded documentaries or historical movies based upon real events (or any parts thereof), whereby the pupils get an opportunity to study a virtual portion of time scale, wherein events are to be depicted on a multimedia time stripe with hyperlinks enabling both the pupils as well as their teacher to swiftly jump from one event to another, using hyperlinks to solve the appropriate academic tasks. Both these as well as many other opportunities appear in the process of learning social sciences owing to the emergence of information and communication technologies [4].

Information and communication technologies are an aggregate of methods and technical means enabling collection, organisation, storage, transmission and presentation of information widening human knowledge and developing human ability to control and operate the solution of technical and social problems. The ICT allow anyone exposed to the learning process to gain access to the practically unlimited amount of information, thereby granting the person(s) exposed to «get directly plugged» into the information streams of society. The functional purpose of information and communication technologies is to process information using computers and production of new knowledge which is related to the needs that the users have [6, p. 103].

The ICT include the Electronic Education Facilities (EEF), Pedagogical Programming Facilities for Training (PPFT), the Internet (including websites, email, and search engines), text editors such as Microsoft Word (alongside other MS products such as MS Publisher, MS Excel, MS Internet Explorer etc).

Ukrainian scholars including T. Aslamova, V. Bortnikov, L. Dukh, O. Zheliba, V. Kononenko, T. Ladychenko [6] propose that the development of ICT to be used in citizenship education should take place following three directions, as stated below:

- electronic education means are to be implemented directly into the education and upbringing process and into the individual extracurricular activities pursued by pupils;
- Internet is to be used (including e-libraries, published articles, remote training courses etc);
- a unified school-to-home information environment is to be created [6, p. 106].

Electronic Education Facilities are the facilities which can be stored on digital or analogous data carriers and then reproduced/played/run using electronic equipment [9]. These include imitational, modelling, and controlling software; databases and knowledge storehouses; textbooks and tutorials; dictionaries, articles and other varieties of texts published online etc.

According various didactic purposes, the citizenship training software can be divided into the following main groups:

1. Software for absorption of new material (explication of theoretical substantiations and regularities; introduction of new terms and notions; familiarisation with items under research).

2. Software used to form practical skills and abilities.

3. Training and simulation software (whereby main notions and items are reviewed by the user and the degree/depth of their understanding is subsequently self-checked by him/her individually).

4. Software for routine and topic-dependent assessment of one's academic achievement (various control tests used to determine the degree/depth of the users' understanding and absorption of the material being taught, supplemented by certain elements used to correct knowledge).

Applied software is to be created with proper regard to acting (valid) curricula. At present, the Ukrainian market does not offer any training software which may be used to teach citizenship education [6, p. 106].

Ukrainian educators and methodologists are actively working to create electronic tutorials and textbooks which may be used to teach citizenship education. With regard to its tasks, an electronic textbook/tutorial is very similar to a traditional one. At the same time, an e-tutorial/e-textbook has several advantages in comparison with a conventional one. The main advantage is the e-textbook's usage of multimedia materials which enables to reproduce video and audio data (such as newsreels, excerpts from movies and documentaries, animated diagrams, maps and charts, interactive tables as well as music and other varieties of audible accompaniment). Apparently and expectedly, a pupil will absorb such learning material with far greater eagerness, and will thereby be encouraged to deepen his knowledge and acquire new skills.

The most important from among the variety of socially informative varieties of communications we encounter nowadays is the world wide web a.k.a. Internet. The Internet reflects the way in which different branches of society function and provides users with information and interaction facilities as well as other services used by the people to satisfy their business as well as pleasure needs. The Internet is needed by everyone, regardless of their profession, social status, and/or age. Being a means of personal development, the Internet substantially assists the person in the fulfilment of their ideas and plans as well as extends one's capabilities for socialisation. Not only are the users of the Internet consuming the information but also replenishing the info storehouses with new data and knowledge and creating new resources from scratch.

The Internet allows kids not only to search for information but also to share it. One system which has undergone a rapid expansion and development lately is the system of *wiki*-type websites (or similar hypertext-based collection of documents) enabling the users themselves to modify the content of the pages. The most widespread *wiki* is its «mother» info-storehouse: the *Wikipedia* – an open and free-of-charge online encyclopaedia available in a variety of languages. It was founded on the 15th of January, 2001 as an English language online encyclopaedia project enabling any user to edit the existing articles and/or create new articles of their own. Today, the purpose of Wikipedia's existence is to create a comprehensive, unbiased,

open and copyright-free encyclopaedia available in each and every language [6, p. 107].

The Internet offers various information-deriving and searching systems helping the users to find the necessary information. Among such systems one may highlight the topic-based catalogues and search engines enabling context-based searches as well as metadata-sensitive services and specialised search servers. All of these search facilities are to a certain extent using the methodologies and approaches previously applied in the conventional librarianship [6, p. 107].

In order to enable the functioning of the educational environment wherein ICT is used, the contemporary educators are using a wide variety of means, implementing them one way or another, in different forms, such as:

- web-based education networks (virtual schools, e-universities, e-software, e-courses, websites, portals etc);
- mass media (online press outlets, TV and radio broadcasts);
- electronic databases (e-libraries, catalogues, collections containing text, images, sounds, music, animation data as well as encyclopaedias and dictionaries);
- e-textbooks, e-tutorials, software for educators.

According to the forms and methods of usage of ICT in the teaching and upbringing process, one may subdivide the lot into the following categories:

- e-projects;
- web-quests;
- Internet magazines;
- topic-related forums and chats.

According to the form of organisation of the studying process whereby ICT is used, one may divide the activities into the following categories:

- e-education (open education, remote education);
- e-schools (virtual schools);
- e-laboratories;
- e-courses etc. [4].

The authors of the methodological tutorial for teachers entitled «Citizenship Education» (S. Poznyak, O. Pometun, P. Verbytska et al) [5] outline four main directions in which citizenship education can be related to information science:

1. Provision of a context for the information-based activity.

Citizenship education enables the pupils and students to develop and cherish within themselves an ability to «exchange and share information» by way of implementation of topical material which is most expected to be of interest to them. Pupils can study questions, assess various sources, exchange the results derived and discuss them. Typical questions may include the issues of legal adulthood or human rights violations.

2. Development of ICT usage skills

Citizenship education provides the goal and direction of activity in the process

of which one's ICT-related skills and abilities are being developed, such as:

- using search engines to find urgently required information;
- using word processors to prepare a document the purpose of which is to persuade the reader;
- creation of presentations whereby technical skills undergo development according to the present necessity to word a logically substantiated statement;
- development of a discussion forum to be appended to the website belonging to a certain school or a certain school council;
- creation of websites with real audience [5, p. 190].

3. *Creation and interpretation of databases.*

The ability to use lines of digits, to operate them and interpret them – including usage and misuse of statistical data – is an important aspect of the citizenship education curriculum. Information technologies develop skills pertaining to the creation of databases, organisation of electronic tables as well as usage of the above thereafter. Citizenship education can offer data for activity within the framework of the given academic discipline as well as invest the lesson with certain practical and target-oriented traits – for instance, by focusing on the statistics pertaining to crime rates or the spread of diseases.

4. *Assessment of instruments and ways in which ICT can be used.*

Citizenship education equips the pupils with a facility which they can use in order to critically assess the usage of ICT instruments – for example, pros and cons of «e-voting». They can also examine certain social consequences that the development of information and computing technologies brings about, E.g.:

- ways in which the ICT influences people in a globalised world;
- collection and usage of personal data in various situations, for instance by the police or the government;
- using the Internet to spread terrorist ideas and practices [5, p. 190].

As we are entering the third millennium, it is logically expected that one will be in search of a new content to furnish education with; that one will undertake a creation of pedagogical systems which is to be child-centric and child-friendly; that one will expect an implementation of innovative education technologies aiming to foster the Ukrainian citizen who is to be a creative human being. Teaching citizenship education is to be in compliance with the requirements that the present time puts in front of us. New methodologies for teaching are to consider the present requirements as far as the applying of information technologies is concerned. In the educational institutions, computer technologies are to lead to gradual shaping of a new generation of citizens who, in a not-so-far-away future, are expected to be using the new information technologies as a common, everyday facility in order to fulfil miscellaneous tasks pertaining to utilities, learning, everyday life, industry as well as other realms of human activity.

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