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Peculiarities of the Application of Information and Communication Technologies for Distance Learning of the Canadian Border Guard Service Personnel

The paper reveals the peculiarities of the development of distance education in Canadian educational institutions. The specifics of distance learning in the most popular land-based and virtual universities in different provinces of Canada are highlighted. The main tasks of distance education in the Canadian higher education system are identified. The key problems that hinder the development of distance education at the international level are identified. It is proved that distance learning in Canada is successfully integrated into the educational process and is aimed at training highly qualified specialists in various fields. It is known that due to changes in security legislation in 2001, the practice of visiting different checkpoints was cancelled. It is proved that Second Life is an online world in which users (residents) create avatars and interact with other participants, places or objects. It was noted that a virtual border crossing point was created using Second Life to train cadets to conduct interviews with people crossing the border at checkpoints to Canada. It has been researched that in order to enroll in distance learning and continuing education courses, certain requirements must be met. It is indicated that distance education offers hundreds of courses available on a monthly or semester basis. The article describes the distance learning course "Border Services" on the website, which is divided into two parts. It is known that the first part of the course is designed to provide students with an understanding of the activities and functions of the Canada Border Services Agency and the second one is to provide students with an understanding of Canadian citizenship and immigration.

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Introduction. The active development of ICT and virtual reality-based technologies requires the application of different principles of interactivity, participatory approach, and the introduction of collaborative learning opportunities to ensure student-centredness of future border guards' professional training. To this end, we have analysed modern effective solutions in this area in North America.

The forecast for the development of the global distance learning market shows that this form of of education is confidently entering the XXI century as the most effective system of education, training and continuous support of high qualification level of specialists of any profile (Gresham, James, 2019).

Particularly the experience of using ICT and distance learning for Canadian Border Services Agency (CSBA) personnel is worthy of note. In this country, border guards are trained not only in departmental law enforcement institutions, but also in civilian higher education institutions, such as the Loyalist College in Belleville, which also trains students who want to pursue a career in the border area as officers of the Canadian Border Services Agency.

It should be noted that until 2001, during the educational process, students took part in field practices at various border crossing points, where they observed the procedure for organising and conducting real border operations. However, due to changes in security legislation after September 11th, 2001, this type of practice was cancelled. Role-playing and written scenarios with elements of visualisation were used in the classroom instead of border experience, but they lacked the reality and dynamism of real-life situations (Hudson K, 2009). This was repeatedly pointed out by students.

The aim of this article is highlighting the peculiarities of using information and communication technologies for distance learning of the personnel of the Canad Border

Services Agency.

Results. One of the most important priorities in reforming adult education in Canada at the beginning of the XXI century is information technology and e-learning [8, p. 23-25]. Open educational institutions, virtual universities that do not have academic buildings and student dormitories, campuses, administrative offices and lecture halls. They consist of collaborative groups of administrators, course developers, teachers, technologists, and students who are separated by large distances, often by national borders, but who work together and learn interactively using modern telematics technologies. Obviously, this model will lead to great progress towards the internationalisation of education and accessibility of learning.

In order to enhance the realism of the educational process, the border crossing point was built in a virtual learning environment where cadets can perform the functions of border guard officers. The use of virtual reality technologies for educational purposes is based on research that has shown that participants in virtual learning environments quickly identify with the roles and situations they encounter in virtual situations, they experience virtual interactions as real events, and this experience is transferred to real life.

Innovative learning can be defined as an orientation towards creating readiness of the individual for the rapidly changing society, readiness for for an uncertain future by developing the ability to create and to cooperate with other people (Novolokova N. P., 6).

It should be noted that we are talking about the so-called digital space or metaverse, which creates a simulation of reality and combines existing services, content, and brand products in a single environment. Thanks to such technologies, online communication, meetings or training using Zoom, a video conferencing application developed by Zoom Video Communications, or other online offices, and the creation of a new virtual reality are common tools for communication, especially during a pandemic or in the face of new challenges of war (we are talking about the national present).

The experience of using ICT and distance learning at the Loyalist College, which

is an active user of Second Life, an online virtual software, shows that in 2006 it was the first to create a virtual campus to improve the teaching of professional disciplines. Second Life is built on open-source software that allows users to interact with each other through virtual images - avatars in a digital environment. Second Life is an online world where users (residents) create avatars and interact with other participants, places or objects. In Second Life, users can attend social gatherings, live concerts, press conferences, and even classes.

Using Second Life, the college created a fully functioning virtual border crossing to train cadets to interview people crossing the border at Canadian border crossings. The development process involved college faculty and 3-D designers (Figure 1).

Fig. 1. - Model of a virtual border crossing point across the Canadian border (Hudson K, 2009)

Description. Simulation training takes place during the lesson. Each cadet plays the role of a border patrol officer and, through his or her virtual image (avatar), can ask other virtual persons crossing the Canadian border. All communication is carried out via voice communication in Second Life, as during certain role-playing games, border crossers are in a separate room from the students (Loyalist College).

The border crossing point is built using modelling tools to simulate a BCP. Cadets can change the appearance of their avatars, but all must be in the uniform of a border guard officer. Being in uniform adds an enhanced sense of realism to the participants. Students are given a mandatory questionnaire based on questions to screen people crossing the border, follow the interview algorithm, and respond to the answers given by people crossing the border.

For example, one student plays the role of an officer in charge of a border patrol shift at a border crossing point. A car pulls up to a passport control booth driven by the avatar of a border crosser, and the cadet must interview the driver and determine whether to allow entry into Canada. Each scenario is different, as border crossers can change their avatars based on age, ethnicity, and gender; emotions can be added to complicate situations. Instructors may suggest solving specific cases that have actually occurred or provide several scenarios to be studied (Hudson, K. and Degast-Kennedy K., 2009).

People crossing the border present travel documents, and may have several different passports and change their citizenship. The documents appear on the student's screen, sometimes with warnings about triggering in various databases with orders from law enforcement agencies (e.g. INTERPOL or Migration Service).

Vehicle situations can also be edited using different number plates and warnings of vehicle problems (database triggers) that are displayed on the screen in the passport control booth, and situations with contraband that can be hidden in the car can be dealt with. Each virtual car has a door that can be opened for a search. Border guard officers can send the vehicle to an in-depth inspection box to search for smuggling. Each student interviews three or four people, and the entire training group observes the interactions and discusses the situations and responses.

Additional elements can also be added to the scenario, including an immigration office and an airport border crossing point, each of which provides students with experience in different procedures. Additionally, the in-depth inspection box contains a virtual car that can be fully disassembled to allow students to learn about all the possible places where smuggling could be hidden. This learning is then reinforced

during a visit to a border crossing point and inspection of a real vehicle (Loyalist College).

A study of the training results for recruits of the Canadian Border Services Agency who used simulation technologies led to the conclusion that they are positive. For example, recruits who were trained by simulating professional situations in Second Life showed 39% better results at the testing stages than those who were trained without the use of this technology (Hudson K, 2009). Therefore, simulating the operation of a checkpoint is seen as a best practice for recreating situations that are difficult to access or dangerous.

It should be noted that Loyalist College was the first institution of higher education in Canada to create a virtual campus in Second Life. Prior to the start of the training course on modelling the operational activities of a border guard unit, students were asked about their expectations of the course. Initially, there was a high degree of scepticism about the possibilities of this learning format. However, at the beginning of the course, the general attitude of the participants changed to enthusiasm. During the course, institutional and infrastructural support for the development and implementation of Second Life learning opportunities at the college was important (Hudson, K. and Degast-Kennedy K., 2009).

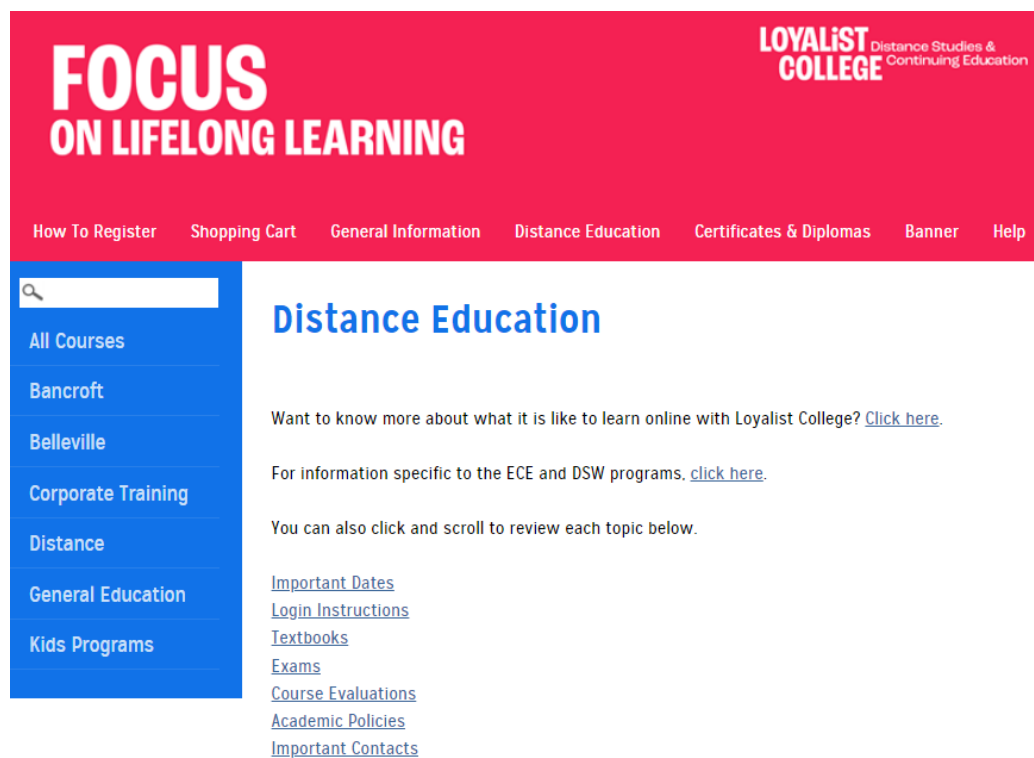It should also be added that Loyalist College's website has a page dedicated to distance education (Fig. 2).

Fig. 2 - Screenshot of the Loyalist College website page dedicated to distance learning (Loyalist College, 4)

It contains information about online learning at Loyalist College, information about the ECE and DSW programmes, important dates, instructions for logging into the remote environment, textbooks, reporting and exams, course grading procedures and features, academic policies, and important contacts.

As for the peculiarities of distance learning at Loyalist College, online courses are held according to a calendar/schedule. Students do weekly assignments, which may include reading, web research, assignments, projects, discussions, and assessments. Students can access their course around the clock and seven days a week. It is not necessary to be online at a certain time, it is important to follow the course calendar and meet the deadlines. If for any reason learners have difficulty meeting the requirements of the schedule, they should contact their facilitator to discuss the problem.

For distance learning, learners must have a computer that supports Internet Explorer, Google Chrome or Firefox, and access to an Internet connection. They must also have sufficient computer experience to send an email with an attachment, know

how and where files are stored, and know how to use word processing software.

Specialist courses may also require additional specialised software depending on the discipline. Software for these courses is not included in the course fee.

There are specific entry requirements for distance learning and continuing education courses. The minimum requirements for admission to any post-secondary program are an Ontario high school diploma (30 credits) or an Ontario post-secondary diploma or equivalent with college or general level credits or mature student status as defined.

A study of Loyalist College's website and activity information suggests that distance education offers hundreds of courses available on a monthly or semester basis.

There is the Border Guard Services course among many distance learning courses on the website (Figure 3). It is divided into two parts (Loyalist College).

Fig. 3 - Screenshot of the Loyalist College website page dedicated to the distance learning course "Border Services"

The first part of the course is designed to provide students with an understanding

of the operations and functions of the Canada Border Services Agency as they relate to the duties of a Border Services Officer and the Customs Act in relation to the movement of people and goods across the Canadian border.

The second part of the course is designed to provide students with an understanding of Canadian citizenship and immigration as it relates to the administration and enforcement of the Immigration and Refugee Protection Act and Regulations, with particular emphasis on the admissibility and inadmissibility of persons entering Canada (Loyalist College, 4).

Conclusions: Thus, in the professional training of future border guard specialists, which takes place in departmental educational institutions, online communication technologies are used, in particular, using Zoom for video conferencing, tools and applications of the online virtual software Second Life, models of virtual professional environment (border crossing point) and online distance learning courses, including the course "Border Services" for specialists of the Canada Border Services Agency.

Perspectives: Since the issue of trends in the preparation of information and communication technologies for distance learning of the personnel of the Canadian Border Guard Service has not been studied enough, further research on the chosen problem is relevant and will contribute to the adoption of all modern positive trends in the educational space of Ukraine.

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Особливості застосування інформаційно-комунікаційних технологій дистанційного навчання для персоналу прикордонної служби Канади

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У статті розкрито особливості розвитку дистанційної освіти в навчальних закладах Канади. Висвітлено специфіку дистанційного навчання в найбільш популярних наземних та віртуальних університетах різних провінцій Канади. Визначено основні завдання дистанційної освіти в системі вищої освіти Канади. Означено ключові проблеми, які стримують розвиток дистанційної освіти на міжнародному рівні. Доведено, що дистанційне навчання в Канаді успішно інтегроване в освітній процес і спрямоване на підготовку висококваліфікованих фахівців у різних галузях. Відомо, що у зв'язку зі змінами в законодавстві про безпеку в 2001 році було скасовано практику відвідування різних контрольно-пропускних пунктів. Доведено, що Second Life — це онлайн-світ, в якому користувачі (резиденти) створюють аватари та взаємодіють з іншими учасниками, місцями або об'єктами. Зазначено, що за допомогою Second Life було створено віртуальний пункт перетину кордону для навчання курсантів проведенню інтерв'ю з особами, які перетинають кордон на пунктах пропуску до Канади. Досліджено, що для того, щоб записатися на курси дистанційного навчання та підвищення кваліфікації, необхідно відповідати певним вимогам. Зазначено, що дистанційна освіта пропонує сотні курсів, доступних на щомісячній або семестровій основі. У статті описано дистанційний курс «Прикордонна служба» на сайті, який розділений на дві частини. Відомо, що перша частина курсу покликана надати студентам розуміння діяльності та функцій Агентства прикордонних служб Канади, а друга — надати студентам розуміння канадського громадянства та імміграції.

Ключові слова: дистанційне навчання, дистанційна освіта, інформаційно-комунікаційні технології, Канадська прикордонна служба, онлайн-технології, персонал.