

# Distance Education in the Northern Regions of Russia

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*Distance education in the Northern regions of the Russian Federation contributes to solving Circumpolar North educational problems by delivering quality courses to remote areas, simplifying the organization of joint US-Russian educational and scientific projects and creating international student communities in both countries. Many Russian universities are developing their own learning management systems and using asynchronous courses. The University of the Arctic (UArctic) is increasing the interest in the use of information and communication technology and open learning resources and networks. In 2008 the UArctic Thematic Network on Distance Education and E-learning began to function. In 2014 the Natural Hazards Thematic Network of UArctic organized a workshop to develop an online course in natural hazards. The Internet and distance education create a new opportunity for indigenous peoples to study a native language and knowledge.*

## Introduction

The research question of this article is: Does distance learning in the Northern regions of the Russian Federation contribute to solving educational problems in the Circumpolar North? The main goals of the research are to identify contemporary educational problems in the Arctic; to analyze the specifics of distance education in the Circumpolar North; to carry out an analysis of distance education in the Russian North; and to examine current and potential US-Russian joint educational and academic projects in the Circumpolar North.

The Arctic Human Development Report I (2004: 169) indicates that there is very little circumpolar research in the field of education and now it is almost impossible to make a circumpolar assessment of education. This article starts an initial discussion of the theme that might be further explored in future work.

The research base consists of research papers and conferences on distance education in the Arctic; government documents and legislation; website information of international and Russian universities; statistical sources; and mass media including online sources.

To analyze the base of research, the following research methods were used: a comparative analysis of Arctic and Russian distance education; distance education reports and material contextual analysis; the legalistic method of analysis; and a comparative quantitative analysis of social and educational indicators.

## **Background**

### *Education in the Arctic*

The North is a vast area characterized by its remoteness. For a definition based on human geography, the Arctic would better be termed the remote region occupying the northernmost expanses of Asia, Europe, and North America (Berman 2013). Huskey and Morehouse (1992) described a remote region as an area with a unique combination of features. Remote regions are remote geographically, economically, and politically. They are distant from large, urban industrial and political centers, and they are sparsely settled. Most of them contain Native or indigenous populations as well as non-Native immigrants, and they have a mix of traditional and Western institutions. Typically, they have limited market economies, and they are dependent on natural resource exports, government transfers, and subsistence activities. The costs of doing public and private business are high. Important decisions affecting these areas are made in distant metropolitan centers. These remote regions lack both political autonomy and economic self-sufficiency.

A significant implication of these characteristics is that most of the researchers view remote regions as problem areas suffering from a complex set of physical, economic, and political limits on their security, welfare, and autonomy.

Development, in this view, is a process of overcoming obstacles to desired forms of change. Different, often conflicting, objectives for social, economic, and political change are sought by organized interests within and outside the region.

Education is an essential component of the sustainable development. As Nelson Mandela said, "Education is the most powerful weapon you can use to change the world." Based on the UNESCO principles, citizens of the world need to learn their way to sustainability. Our current knowledge base does not contain the solutions to contemporary global environmental, societal and economic problems. Today's education is crucial to the ability of present and future leaders and citizens to create solutions and find new paths to a better future.

Education for sustainable development (ESD) is not a particular UNESCO programme or project, but is rather an umbrella for many forms of education that already exist, and new ones that remain to be created. ESD promotes efforts to rethink educational programs and systems (both methods and contents) that currently support unsustainable societies. ESD affects all components of education: legislation, policy, finance, curriculum, instruction, learning, assessment, etc. ESD calls for lifelong

learning and recognizes the fact that the educational needs of people change over their lifetime. Many individuals and organizations around the world already implement ESD (e.g. a teacher weaving sustainability themes into primary education using participatory methods; a community development worker raising people's awareness on rights which are denied to them; or a public health worker training people to draw water from clean sources). There are many programs using an ESD approach to learning which is critical for achieving sustainability.

ESD has essential characteristics that can be implemented in many culturally appropriate forms. Education for sustainable development: is based on the principles and values that underlie sustainable development; deals with the well-being of all four dimensions of sustainability – environment, society, culture and economy; uses a variety of pedagogical techniques that promote participatory learning and higher-order thinking skills; promotes lifelong learning; is locally relevant and culturally appropriate; is based on local needs, perceptions and conditions, but acknowledges that fulfilling local needs often has international effects and consequences; engages formal, non-formal and informal education; accommodates the evolving nature of the concept of sustainability; addresses content, taking into account context, global issues and local priorities; builds civil capacity for community-based decision-making, social tolerance, environmental stewardship, an adaptable workforce, and a good quality of life; is interdisciplinary. No single discipline can claim ESD for itself; all disciplines can contribute to ESD (The official website of UNESCO).

However, for the Arctic there is a history of education systems that tried to force central school models on local people, including different degrees of suppression of local language. This has been improved today to various degrees in the Arctic States. But the lack of skilled teachers with local roots is a circumpolar-wide challenge. Arctic higher educational institutions also face many challenges when attempting to be innovative and competitive due to their small size and geographic isolation (Kullerud 2009).

Education should be an important indicator for human development in the circumpolar region. Each of the circumpolar states has a vested interest in education. There are certain common characteristics in northern education. For example, some aspects of what students learn during their primary and secondary school years, and even beyond to post-secondary education, is on the surface similar in all parts of the circumpolar North. In Narsaq, Greenland, students will acquire some of the same knowledge as those in Norilsk, Russia, even if there will be some obvious language and culture differences. The situation in the North is special because the region for many years has been impressed by closed borders – a border that separated the East from the West and that represents great language, economic, technological, and social differences. However, the peoples in the high North have much in common, such as their closeness to nature and its seasons.

Comparisons show similar systems of organization, school administration, and textbook subject matter, though the size of classes and economics of education vary a great deal. This holds true when comparing a number of schools in each of the larger urban communities. The graduates from these different schools will follow goals and objectives set within the social and historical context of where they live, as well as the economic and cultural specifics of their times.

A proportion of students will continue past primary school through secondary school graduation, and, in some cases, even beyond to technical colleges and post-secondary institutions. In parallel to the official education system, in particular for indigenous peoples, traditional learning also progresses through stages of education in both culture and language. In many jurisdictions where indigenous peoples form the majority, the formal content of education, the curriculum and language of instruction, and perhaps even the textbooks and other educational supports are based on their language and culture. Where indigenous peoples are in the minority, they are all too often marginalized (AHDR I).

Another important element for the Arctic is the concept of the digital divide that was used to describe the East-West situation of the North. It includes the imbalance in physical access to technology and in the resources and skills needed to effectively participate as a digital user. The term was introduced in the 1990s to describe the gap in ownership of computers between ethnic groups, but later it was also utilized to refer to differences in access between countries.

Education is one area where the digital divide has an impact. And by bridging the digital divide, it is possible for regions to enhance communication with other countries and therefore to offer better educational and social opportunities.

The realities of the Arctic region with its vast distances, great cultural diversity, and small communities and institutions called for a common effort by the involved nations and universities. The University of the Arctic (UArctic) started in 2001 as a virtual university with the mission to “Empower the residents of the Circumpolar North, by building human capital through higher education.” UArctic is a cooperative network of universities, colleges, and other organizations committed to higher education and research in the North. UArctic has developed innovative courses offered in the classroom and in the field or delivered online, including north2north student exchange programs.

UArctic does not have its own students. In order to participate in the majority of its programs, students must be registered at any one of its member institutions. If a student is not registered at one of these institutions, he or she can apply as a part-time or visiting student at one of its institutions.

UArctic is not a degree-granting institution. It is a network of institutions who are involved in higher education and research in the Circumpolar North. Each institution sets their own admission and degree requirements (The official website of University of the Arctic).

A significant development in northern higher education is the increased interest in the use of information and communication technology and open learning resources and networks. This is reflected in the University of the Arctic and the Northern Research Forum. Their efforts to raise awareness of natural and cultural circumstance of the Arctic and promoting dialogue among members of the research community and a wide range of other stakeholders in the Arctic have been applauded by the Arctic education ministers (AHDR I 2004).

The University of the Arctic Thematic Network on Distance Education and E-learning was started in 2008. The University of Tromsø, Faculty of Education, is the lead and the host institution in the network, with partners from Nordic countries, Russia, and Canada.

The Thematic Network's main activities can be described as sharing experiences with E-learning with members of the Network; identifying the relevant challenges and problems in the field of E-learning in the Arctic countries; facilitating student and teacher exchanges; facilitating collaborative research projects, conferences; and publications in the area of E-learning; and drafting applications for funding the network and activities within the network education (The official website of the Thematic Network on Distance Education and E-learning).

In 2009 the thematic network arranged a conference in Murmansk in the Russian Federation on flexible learning, together with Murmansk State Pedagogical University. The aim of the e-learning part of the conference was to exchange knowledge and research about e-learning and to host a discussion of the methodology of the field. It was centered on the learning processes, pedagogy, and appropriate information technologies necessary to deliver content to and support distant learners. The sessions had their main focus on education in the Arctic communities and regions. Particular emphasis was placed on technology-enhanced learning, and the pedagogic and creative use of learning management systems (LMS) were discussed, together with issues related to teacher training and digital resources from the Arctic region. Five of the presentations were from Russia, three from Canada, one from Denmark, and nine from Norway (Thorvaldsen 2011).

### *Distance Education in the Circumpolar North*

Distance learning is seen as an obvious solution for remote learners, and the use of online media is expected to overcome any access difficulties imposed by geographical distance. Macintyre (2011) indicates that the researchers found that perceptions of remoteness depended on geography, but were also relative to individual circumstances. With respect to students' sense of connection with university staff and peers, most mentioned their contact with their personal tutor. Networks with peers were less common, a matter of concern if peer networks are integral to fostering improved retention and progression. In this particular context, distance education may be playing an important and distinctive role for remote students by providing opportunities for connections with like-minded people.

An emerging trend for circumpolar education is its increasing accessibility. Accessibility is about students being able to take classes and fulfill their potential, that is, it concerns their possibilities for attending school, both physically and culturally. Even though this increased accessibility of education is occurring in some places, it is not unique to the North. Rather, it is a reflection of changes that have occurred in urbanized areas around the world, where population growth, increased living standards, modernity, and technology have been transforming schools for the past fifty years (AHDR I 2004).

The importance of equal access to higher education was emphasized repeatedly in the declarations that emerged from the 1998 World Conference on Higher Education. UNESCO reaffirmed Article 26(1) of the Universal Declaration of Human Rights proclaiming, "Everyone has the right to

education . . . higher education shall be equally accessible to all on the basis of merit.” Increasing the participation and role of women in higher education was emphasized, but the declaration included many other factors and conditions that have resulted in inequitable patterns of participation.

Much progress has been made. While many countries have enrolled upwards of 50% of the age cohort (and therefore reflect the extent of massification during the last few decades), too many countries still enroll only a small percentage of their cohort. Poorer nations are likely to enroll fewer students than wealthier nations. Additionally, even as enrollment has expanded, participation has rarely been representative of the society as a whole. Within most nations, access to higher education is often (still) the privilege of specific segments of society.

Many nations have attempted to address inequities with aggressive policies (e.g. affirmative action or reservation policies for admission), innovative financing schemes, and tutoring programs, but it is always clear that these patterns are not easily erased and the challenge remains of making higher education truly accessible to all.

New providers, new delivery methods, the diversity of postsecondary institutions, and the ease of international mobility should (in theory) make higher education available to more people. While this has indeed been the case, the diversity of opportunities has also helped to underscore those pernicious issues that hamper progress (Trends, 2009: 37).

For the circumpolar countries, there are existing post-secondary institutions in the Arctic that either by campus or program location and/or through adapted new delivery systems try to improve accessibility. The model of the University of Arctic allows for a dynamic development of shared education systems through mutual cooperation. This network can be a very efficient tool for delivering a relevant curriculum for a changing North (Cruller, 2009).

For example, more than 40 scientists and students from universities of the U.S., Canada, Finland, Germany, Norway and the leading Russian universities - members of the consortium of the University of the Arctic – took part in the Natural Hazards workshop which ended in Northern (Arctic) Federal University (NarFU), Arkhangelsk, on the 22 of March 2014. The workshop was the first major activity of the newly formed Natural Hazards Thematic Network of UArctic. The goal of the workshop was to begin development of an online course for UArctic in natural hazards. Construction of the course itself is expected to take about a year.

The workshop organized in Arkhangelsk by University of Alaska Fairbanks (UAF) and NarFU is unique. Its particular features are: (1) leading roles in design and implementation of the course is given to students; (2) multi-national and multi-disciplinary knowledge and perspectives on most common natural hazards, as well as their social and policy implications, are included into the course; and (3) an emphasis is put on problems that are unique to or exacerbated by Arctic conditions. The latter includes presence of ice, limited transportation infrastructure, great length of supply lines, and the time pressure for response that extreme cold imposes.

The main outcome of the event was development of the concept of the on-line course “Natural Hazards”. In March 2014, the participants discussed the preliminary results. Students made

presentations on thematic modules of the course: Earthquakes, Tsunamis, Forest Fires, Floods, and Volcanoes. Students reported that it was very difficult to include all interesting information in a short educational program, so in future the modules will include only the most basic issues.

The distance course will be based on lectures. However, practical exercises, particularly the method of case studies, will be also included. The joint educational course will be designed for MA and PhD students of UArctic. Participants will continue further work over the course during spring and summer of this year. In September 2014, the group plans to discuss the course modules in Alaska (The official website of the Thematic Networks on Natural Hazards – <http://www.uarctic.org/organization/thematic-networks/natural-hazards/>).

Individual universities of the continuum will offer the distance course on the natural hazards using the same content, but their individual delivery and learning management systems. For example, the Moscow State University of Economics, Statistics and Informatics (MESI) and its northern branches will use a self-made learning management system Virtual campus.

Using a system of electronic training of MESI, in the 2014 spring semester the author developed a module “Image of Natural Disasters in the French and Russian Literature” for graduate students of “Theory of mass communications and international public relations”. The module was organized as a blended course combining elements of traditional and electronic models of education.

The MESI traditional model means internal communication with educators, lessons in a class, etc. the electronic model entails training with the use of information technologies: use of Internet resources, communication with educators in forums, viewing of training materials via online, passing tests via the computer, etc.

For authorization on the site of the Virtual Campus, it is necessary to specify a login and password. At the beginning of a semester each student receives an individual login and password for the login. This information is strictly confidential and isn't subject to disclosure. As the Virtual Campus is realized on the Microsoft Share point 2010 platform, only the MS Internet Explorer browser can work correctly in the system. Students are given assignments, appointed electronic training events, for example, tests, electronic textbooks, tasks, forums etc.

One of the assignments for the course is a 3-5 page essay on the theme “The image of natural disasters in the literature”. The following literature works could be used: 1) Gorodetsky S. M. “I love you one”, 2) Voltaire “Candide”, and 3) Heinrich von Kleist “The Earthquake in Chile”.

Materials of the module and results of the educational process will be used for a Social Sciences module of the University of the Arctic online course “Natural Hazards in the Arctic”.

This blended course was effective as other programs aimed at extramural and part-time (evening) students. The results of tests and assignments in the Virtual campus really showed the students' abilities. Full-time students at the Bachelor level will probably not be so productive on this course based on the experience the author has faced educating within other disciplines.

The extramural tuition in Russia is the type of the independent studies. 30% of it is the contact lessons with a teacher in the form of the introductory lectures on the subject, seminars, colloquiums, etc. Here the subject-course system of education is used.

In other words, in the beginning of the academic year, which is usually put off in comparison with the other types of training, the students of the extramural tuition get a so called “adjusting course” (as a rule the academic year of the full- and part-time studies starts on September, 1, and lasts till June, 30, inclusive; as for the extramural studies, the academic year starts later, on October, 1).

The adjusting course is a brief review of the subjects (several introductory lectures), which the students will study independently in the future and pass examinations in them.

The adjusting course usually lasts 2 - 3 weeks of working days. Then over the course of about 4 - 5 months the students train independently in the subjects they have had at the adjusting course. In 4 - 5 months the examination takes place, during which time educators determine the students' level of the subject knowledge and attest them. After that the students receive the next adjusting course for a new set of subjects and everything repeats over 4 - 5 months.

The externship is the independent training by the student of the subjects provided by the educational programme in the chosen specialty with the following attestation (current and final) in the institute of higher education.

The lessons of the exemplary evening studies are conducted in the evening. Usually there are 6 - 8 lessons per week. The evening studies are convenient for those who work. The lessons usually start after 18:00. Usually there are 2 - 3 pairs or paired lessons (1 pair lasts 80 minutes).

The contact lessons do not take so much time in comparison with the lessons of full-time studies.

The percentage of lessons with a teacher and independent studies is 50%. Contact lessons are usually conducted in the form of lectures, seminars, colloquiums, etc.

Recently a modified type of the exemplary evening studies has been extended. The difference of this training type from the exemplary evening studies is that the lessons are conducted in weekend days, mostly on Saturdays or Sundays (sometimes there can be two days running), and the number of pairs is increased to 4 - 5 per day consequently (Information and Analytical System).

Though distance or online education is developing in Russia, there are a lot of gaps in the national educational standards. The world experience, particularly in the Arctic, is very important.

Generally online learning is a form of distance learning, and distance learning is just that - learning at a distance - education unbound from the physical site of a classroom. The terms distance learning, distance education, virtual education, and online education are often used interchangeably. “Distance” refers to the geographic separation between teachers and students, as well as the time gap that can separate lessons taught and lessons learned. Students can attend a college regardless of geography with the ease and control of technology.

Distance learning is not a new phenomenon - correspondence courses have been around for centuries and it is common today for people to self-educate themselves via CD-ROM, DVD,



podcasts, and other technological tools - but the evolution of the Internet ushered in a new era of distance learning: widespread online higher education.

Online education has its roots in the business world, where companies were quick to utilize computers and multimedia; as the Internet began to come into its own, businesses found it an ideal vessel for employee training programs.

Online education programs are unique creatures, customized to content and stylized by instructors, but are commonly categorized into two types: asynchronous and synchronous. Most online courses are asynchronous. Asynchronous learning is the method in which the teaching occurs at one time and the learning occurs at another. Material is posted to web pages, delivered via email, or packaged in software, and can consist of reading assignments, video recordings, audio clips, or other lesson tools. Students then individually access and navigate this material, without necessarily needing to coordinate with other students in the course. Synchronous learning is the method in which teaching and learning happen at a synchronized time. Faculty and students share a common schedule and meet together via audio or video conferencing, web-based lectures, virtual classrooms, live chats, and the like. This method is becoming increasingly utilized as online education expands its reach (Marshall, 2010).

There are a number of reasons students pursue an online education. Choice is one: without geographic limitations or relocation issues, students can consider schools that otherwise may not have been an option. The convenience and comfort of managing online course work at home is not just appealing but often necessary, especially for busy professionals and parents without the time to commute to a college campus. Online programs offer multiple course sessions and make fewer scheduling demands than traditional universities; students have greater flexibility to customize coursework and study time according to their own specifications. Online learning can also be cost-effective because it eliminates room, board, and other fees built into campus learning (Marshall, 2010).

The US Department of Education research in online education has found encouraging results. Students in online environments performed modestly better, on average, than those learning the same material through traditional face-to-face instruction. Learning outcomes for students who engaged in online learning exceeded those of students receiving face-to-face instruction (*Evidence-Based Practices in Online Learning* 2009).

There is evidence that the practice of Arctic countries confirms the effectiveness of online or distance education. Taking into account the Arctic Social Indicators (Larsen, 2010: 76), Statistics Iceland has examined the drop-out rate of students in tertiary education by comparing the Statistics Iceland Student Register with the Register of Examinations. The results show that from autumn 2002 to autumn 2003 a total of 2,037 students dropped out of school or took a temporary leave from their studies, resulting in a drop-out rate of 14.7%. The rate was lower among students in day courses and distance learning and higher among students in evening courses. In addition, the drop-out rate was lower among students in full-time study and higher among students in part-time study. So, in Iceland there is the same tendency as in Russia in the area of distance learning for the evening and part-time education.

The main technological characteristics of distance education is a Learning Management System (LMS), a Course Management System (CMS) or a Virtual Learning Environment (VLE). It is software used for delivering, tracking and managing training/education. LMSs range from systems for managing training/educational records to software for distributing courses over the Internet and offering features for online collaboration (Mahnegar, 2012). Blackboard is one of the leading commercial LMS software packages used by North American and European universities. Educators have other opportunities as well. Moodle is a course management system. It is a free web application that educators can use to create effective online learning sites (The website of Moodle). Many institutions, in particular, in Russia are developing their own LMS, sometimes using open source approaches.

As has been discussed, there are two primary types of distance learning activities: asynchronous learning and synchronous learning. Synchronous is live or “real time”, participants are all logged in and communicating at the same time. Adobe Connect webinar or online chat are examples. Asynchronous is not live or “not real-time”, participants log in and communicate at different times depending on what is most convenient to them. Online individual, team, and whole group discussions are examples (Hopkins, 2010).

Distance education uses interactive telecommunication tools as primary or adjunctive media to promote learning. These tools may take various forms, including groupware programs (such as Webex and Skype); teleconferencing applications; web camcorders; presentation applications (such as Powerpoint); and learning management systems (such as Blackboard/WebCT, Plateau, eCollege, Flex Training, Travantis, Lectora, and Moodle) (Pajarillo, 2012).

Web-based distance learning environments use course management systems, portals, and custom designed Web-pages to deliver instructional-learning modules to students at their convenience. Social networking, collective decision making, and blogging types of applications should be incorporated into the current Web 1.0-based course management systems. The Blackboard course management system improves learning by highlighting increased communication between the professor and students, cooperation among students, immediate feedback, and acknowledgement of the diverse ways of learning among students.

E-learning environments are at a crossroads. They can continue to expand the use of course management systems that provide the standard plate of offerings (i.e., notes, assignments, quizzes, multiple-choice tests, discussion boards, and chat rooms), or they can create interactive learning environments that provide modeling, engaging activities, assessment of student performance, and immediate feedback using intelligent tutorial technologies (Wijekumar, 2010).

## **Distance Education in Russia**

### *The Russian Federation Distance Technologies*

The education in Russian rural and remote areas of the North has a lot of problems. It may be that to many inhabitants of the Russian Federation, especially in the rural parts, the idea of having access to the Internet seems rather unreal, or utopian. At present, for many people in Russia Internet access

is simply not feasible. Computers are restricted to urban areas and, moreover, considerably less than in North America, Western Europe and Japan. The telephone system in many rural areas is not reliable or not automated at all. This is an even more crucial point in the remote areas of the Far North. Electric power supply is an additional problem: in small settlements it is provided by diesel generators, it is restricted sometimes to one or only half an hour daily, power failure occurs quite often (about once a week), and sometimes it lasts for several hours. Under these conditions one cannot rely on photocopiers and fax, let alone computers. It is obvious that the local inhabitants must tackle problems, which are by far more elementary than the use of computers or access to the Internet (Habeck, 1998).

However, due to the remoteness of schools in northern Russia, new information technologies and distance education are becoming increasingly attractive options. Not all northern schools are uniformly well equipped with computers and software. In the Sakha Republic as of 2003, both village schools and town schools had one computer per 23 students, while in Russia as a whole the average was one computer per 500 students. Most comprehensive schools use local networks, and all secondary schools have Internet access (AHDR I 2004: 172).

One of the possible ways of solving this problem is the establishment of new universities and branches. New outreach programs on the part of metropolitan universities in Moscow and St. Petersburg stimulate the expansion of high education in the North (Vasiliev, 2002: 155-157). These university branches in the North and Siberia can increase investments on infrastructure, maintenance and equipment. The uniform university standard on information technologies and IT program services helps branches to use modern technologies in the educational process.

For example, the Moscow State University of Economics, Statistics and Informatics (MESI) is the Russian first electronic distributed university. Along with its Moscow campus, MESI comprises 13 branches and about 200 study centers all over Russia (from Kaliningrad to Vladivostok) and abroad (Armenia, Belarus, Israel, Kazakhstan, Latvia, Ukraine and Uzbekistan). MESI has campuses in northern and Siberian regions: in Buryat, Kemerovo, Perm, Krasnoyarsk, Khakassia and Altai.

All regional divisions are connected by a uniform corporate network and realize educational programs on the basis of uniform information educational environment with the use of uniform content, library resources, faculty and uniform management. MESI regional campuses use uniform university standards on information technologies and corresponding program services. Branches have an access to all resources of the head higher education institution in Moscow and “mirror” copies of its technological infrastructure. Each student, regardless of his place of resident, has access to all educational resources of university that allows guaranteeing the highest quality of training in all regional structures of MESI (The official website of MESI). For example, students have access to a syllabus for a hybrid interdisciplinary course “Interest Groups and Lobbying in the United States” which content is partly described in a MESI publication (Lipatov, 2013). They can evaluate its content and choose.

Unfortunately, MESI and other Russian universities uses a self-made learning management system and teach asynchronous courses via online. It limits distance education effectiveness and does not

allow teachers, college and university instructors and educators to use the latest and greatest technology to promote collaboration, as well as assess and improve performance.

Many Russian northern universities using the e-learning environment are facing a motivation problem. For instance, North-Eastern Federal University, previously known as Yakutsk State University, has created a lot of digital training materials, but educators in the learning process do not widely and effectively use these materials. There are many reasons for this, including no access to the Internet or lack of compensation for creating new media (Zamorshchikova, 2011).

MESI has successfully resolved this traditional problem. A multilevel wage system encourages professors who teach hybrid courses using the e-learning environment by creating course website, engaging students in social learning, weaving multimedia into class content, assessing performance and managing grades, and sharing open education resources. These educators have an additional pay per hour.

Higher education in the northern and Siberian regions of Russia needs indigenous language training. One of the positive aspects after the collapse of the USSR is the fact that the number of languages taught in Russian schools doubled between 1991 and 1995. In 1987 students could be educated through grade 10 in four languages other than Russian (Georgian, Bashkir, Armenian, and Tatar). Five years later Russian students could be educated through compulsory education in nine languages (add Buriat, Urdmurt, Chuvash and Yakut). In the mid- 1990s an additional 87 languages constituted the part of the curriculum. In some instances, non-Russian languages are used in schools where Russian speakers are in the minority. This adds a different dimension to the question of protecting 'minority rights (Heyneman, 1998: 28-29).

Indigenous peoples have begun promoting their own websites on the Internet, which is very important with a view to the possibilities of distance education as well as with regard to information dissemination. Today in Russia there exist a number of NGOs that promote professional orientation through the Internet and this tendency in education is growing rapidly (*International survey on adult education for indigenous peoples*, 2000: 20).

Many opportunities have joint American and Russian educational and scientific projects.

### ***US-Russian Cooperation in Distance Education***

Building US-Russian university partnerships might be based on such projects as joint research programs of MESI and *University of Alaska Fairbanks (UAF)* with the use of information and communication technology. Teaching hybrid and online courses, educators from two countries can create joint course websites, engage American and Russian students in social learning, weave bilingual multimedia into class content and share assessment performance.

Another possible option in building US-Russian university partnerships by distant education is a project on Expository Writing between UAF and MESI. The interactive course can involve students in MESI and the students of its branches in the North and Siberia – Buryat, Kemerovo, Perm, Krasnoyarsk, Khakassia and Altai branches. The students are expected to follow the course *International Relations and Arctic Governance* together from module to module as each module is

available online for every participant according to the following course schedule: (1) a professor from UAF creates the modules and posts them online to the students in Russia; (2) within each module, the professor gives directions to the MESI instructors for the face-to-face classroom interactions with the students (in tandem with the online module); (3) the MESI instructors are to enhance the online lessons by engaging the students in face-to-face learning and discussion within each module. In addition, the students have different assignments to post material to each other to read online, particularly during the introductory assignments, which allow them to have some online interaction with each other. They can also post messages online for others to view and send private messages by email. As the instructors in Russia are to enhance the online lessons by engaging the students in face-to-face learning and discussion within each module, the course is considered a distant education course with face-to-face enhancements.

*MESI* also can create an international wiki project with students from *UAF* including Academic Writing in *Arctic Governance* and *American English* through Digital Storyline. The objectives of the project are as follows: 1) to learn to create the content of an Internet-based course using Web 2.0 technology (blogs, wikis, etc.) and a learning management system; 2) to introduce students to exploring and mastering digital tools, or “to develop their digital competence so that they themselves could discover the pedagogical potential in these tools”; 3) to find ways to incorporate contemporary Internet use and culture into Arctic governance and foreign language teaching; 4) to study each others’ experience of education through e-learning and Internet-based courses; (5) to establish contact between Russian and American colleagues for further cooperation, consultation, and exchange; and 6) to develop Internet-based cross-cultural communication networks between students of Arctic universities for a future teaching community.

Storyline is a method for cross-curricular teaching and learning centered on a specific theme. The main objective is to collaborate on a common storyline based on this methodology, entirely realized through so-called Web 2.0 tools (wikis and blogs) and applications (YouTube, Google tools, etc.) (Brox, 2009).

Similar projects had already been conducted by Pembroke College, Oxford University and Yakutsk State University (North-Eastern Federal University) in 2002. The interactive course involved students in the head university and its branch in Mirny. The second one was introduced by Yakutsk University and the University of Tromsø, Norway in February 2010 (Zamorshchikov, a 2011).

New information technologies for distance learning are very dynamically and rapidly developing. Russian universities often face a shortage of financial resources, and create learning management systems of their own. Collaborative joint projects can be conducted with the use of a cutting edge learning management system *CoureSites* by Blackboard.

An online teaching tool Wikis, a collaborative space within the course where all students can view, contribute and edit, can create joint educational projects in the *Arctic Governance* or *International Relations* content. Wikis can also be used as a resource for students to view information and content relevant to their courses. Course Wikis are created by an instructor and any course member can add pages, unless the instructor intends to be the sole author and use the Wiki as course content. Group Wikis are enabled by an instructor and can be read by all course members, but a user must be a

member of the group to edit a page or make a comment on a Group Wiki page. The Instructor can change the default setting to allow only group members to view a Group Wiki. Comments can be added to any page (The website of CourseSites by Blackboard).

As the effectiveness of e-textbooks was introduced above, using an interactive eBook for such MESI courses as *Regional (American) Studies* and *Introduction to American Government* is another effective online learning technology tool. The easy-to-follow eBook gives students access to the same content and page layout of the traditional printed book, but in a flexible electronic format. It offers links to multimedia content including audio, video, articles, reference materials, and data that allow students to delve deeper and explore an important concept or idea where it matters most – on the page where a topic is discussed.

Featuring helpful study tools such as highlighting, bookmarking, rollover in-text glossary terms, and in-text searching, the interactive eBook can be easily downloaded to a computer so student can access the content online from any device, anywhere (Barbour, 2014).

As for student associations and social responsibility, for example, the *UAF*, an American medium-sized university, has over 140 active student organizations. They provide a valuable service to the *UAF* campus, the Fairbanks community, and students by facilitating and promoting: career development, public service, social and cultural interaction, activism and leadership development. So, this practice can be very valuable for Russian universities where now there is a lack of student association activity and social responsibility projects.

Active *UAF* Student Organizations include different areas: Academic and Departmental, Greek, Honor Society, Media, Music, and Performing Arts, Multicultural and Language, Political and Activism, Recreation and Sport, Religious and Spiritual, Service and Volunteerism and Special Interest (The official webpage of *UAF* Student Organizations Community).

Network environments by means of the computer and the Internet is a perfect tool for student organizations from Russia and the USA to communicate, to form a more active and vibrant community, to serve as a unifying force that honors each individual and values diversity.

## Conclusion

Distance learning in the Circumpolar North including the northern regions of Russia is important for solving the educational problems in the Arctic zone:

- Distance education plays a significant role in the sustainable development of the Arctic/circumpolar region. The University of the Arctic can improve accessibility to learning and scientific studies in the Circumpolar North with the help of online learning technologies.
- There are some common characteristics in Arctic distance education, for example, participation rates among evening and part-time students.
- Blackboard is a modern learning management system (LMS), widely spread in North American universities. Many Russian institutions are developing their own LMS.

- IT infrastructure in the North for higher education is below the average Russian standards but the usage of modern developments of new information technologies and distance learning are growing. Self-made learning management systems and asynchronous courses dominate in Russian universities. Open educational resources are very popular. Indigenous language distance education is increasing in importance.
- There are about twenty-five regions and many universities in the North and Siberia. Distance education based in the sphere of the North is underdeveloped based on Russian standards, but it is developing. Self-made LMS, asynchronous courses and systems prevail. Open educational resources for indigenous people are becoming popular.
- In the near future, Russian and American educators can enhance partnerships between universities in the US and Russia through the development of joint research projects of faculty, curriculum and academic development in distance education and online network cooperation among student clubs.

The Russian North is facing a lack of innovation in distance education, and there remain many gaps. However Russian state authorities are encouraging its utilization. The comparative world experience, particularly in the Arctic states, is very important to its development. In five years, modern western online learning technologies will probably be presented in the northern regions of Russia.

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