Online and Blended Learning:

A Survey of Policy and Practice of K-12 Schools Around the World

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iNACOL
International Association for K-12 Online Learning

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Acknowledgments

This is the second International Survey completed by the International Association for K-12 Online Learning (iNACOL). The first survey was conducted by Susan Patrick and Allison Powell from the North American Council for Online Learning (NACOL) in response to several requests from members asking for examples from other countries. At the time, there was no research published on the topic of K-12 online learning outside of North America.

In 2006, iNACOL sent surveys to over 60 countries and received 17 responses which were summarized in *An International Perspective of K-12 Online Learning: A Summary of the 2006 NACOL International E-Learning Survey*. This report provided data, information, and innovative ideas to policymakers and practitioners in North America.

Through the help of the Atlas Economic Research Foundation, iNACOL was able to complete a more in depth follow up to the 2006 survey. Matthew Warner's leadership in the development and deployment of the survey and organization of the researchers was essential in the completion of this study. iNACOL would also like to thank the members of the Research Committee who share an interest and commitment to the field of K-12 online and blended learning and donated their time, leadership, and guidance in the planning, analysis, and writing of this report.

The researchers who gave their time to provide the information that is the basis for this international report are another set of key contributors to the report. iNACOL would like to thank these researchers who completed the survey and wrote the case studies on behalf of the Atlas Economic Research Foundation. This report would not have been possible without their input.

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We have made every attempt to ensure the accuracy of the information in the *Online and Blended Learning: A Survey of Policy and Practice in K-12 Schools Around the World*, but recognize that in a report of this breadth some errors of accuracy or omission are likely. iNACOL welcomes comments, clarifications, and suggestions to apowell@inacol.org.

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Introduction

In 2006, the North American Council for Online Learning (NACOL) conducted its first international survey, researching how other countries were implementing online and blended learning opportunities for their primary and secondary (K-12) students.

As the pace of growth of online and blended learning has grown at an average of over 30% each year for the past 10 years across the United States, there have been several requests to update the research done from *An International Perspective of K-12 Online Learning: A Summary of the 2006 NACOL International E-Learning Survey*.[1] As a result, iNACOL undertook the project to produce a new report on the international state of K-12 online learning with the assistance of several members of the iNACOL Research Committee.

The collection of the content for this report was made possible through the Atlas Economic Research Foundation to replicate and extend the 2006 International Survey conducted by iNACOL. Atlas worked with current education researchers in over 60 countries to answer several questions about the state of online learning policy and practice for primary and secondary (K-12) students in each country. iNACOL received a total of 50 completed surveys.

The surveys included 23 questions that were thematically focused around the following areas:

- Government involvement in online learning in areas such as planning, finance, and leadership
- Numbers of students taking courses online and the geographic areas served
- Instructor professional development
- Quality standards for courses and supportive services
- Challenges for online learning
- Technology used by students

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[1] Patrick, S. and Powell, A. (2006). *An International Perspective of K-12 Online Learning: A Summary of the 2006 NACOL International E-Learning Survey*. Retrieved from http://www.inacol.org/research/docs/InternationalSurveyResultsSummaries.pdf

As a variety of terms are used internationally to describe online learning—including distance education, virtual schools, virtual learning, e-learning, and electronic learning—iNACOL defined online learning for the researchers as "education in which instruction and content are delivered primarily via the Internet." In general, the common understanding is that this type of learning takes place over the Internet. For the purpose of these reports, blended learning was defined as "learning that combines two modes of instruction, online and face-to-face, but at potentially different points in time." This term is often used synonymously with hybrid learning. Researchers were asked to focus their answers on students in the range of 5–18 years of age (i.e., primary and secondary education).

In addition to the completed surveys, an extension from the original study was a collection of case studies to further illustrate the K-12 online learning activities in a selected group of countries. Atlas initially distributed requests to 15 selected researchers in targeted countries where online learning initiatives were known to occur. Individuals and organizations from various countries were asked to provide a more detailed discussion of the K-12 online and blended learning in their respective countries; these discussions were based on a series of questions concerning the thematic areas of teacher professional development, online content, online courses, policy, and leadership.

The researchers were provided with a questionnaire that was designed to help guide their reports. This questionnaire introduced the study to the researchers and indicated that their reports should:

- highlight international trends in the use of online and blended learning for government-funded primary and secondary education (i.e., ages 5–18);
- identify online learning initiatives and projects in the individual countries;
- promote international dialogue; and
- share the results.

Researchers from 11 countries submitted reports, nine of which are presented as case studies in a book published by iNACOL, Online and Blended Learning: Case Studies of K-12 Schools Around the World.[2] Unfortunately, one of these reports was excluded because of its focus on higher education, and a second was excluded because it was opinion-based as opposed to fact-based. Within this report, we provide a short introduction and summary of each of these case studies.

This international survey of policy and practice of schools around the world aims at adding to the body of knowledge about online and blended education policy and practice for policymakers and practitioners around the world. The report also serves as a reference source for information about programs and policies for those who are new to online and blended learning and for those who have extensive experience in the field.

After this introduction, which includes the methodology of the report, a summary of online and blended learning is shared. It provides definitions of the terms used in this report as well as the state of K-12 online and blended learning for those new to the field.

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[2] Barbour, M., Hasler Waters, L, and Hunt, J. (Ed.). (2011). *Online and Blended Learning: Case Studies of K-12 Schools Around the World*. International Association for K-12 Online Learning. Vienna, VA.

Key trends, issues, and challenges found from the data reported in the survey are discussed in the next section of the report. It begins with the current trends, followed by the issues of those countries that are currently providing online and blended learning opportunities for students in their primary and secondary schools. The challenges facing the countries that have not yet started implementing these opportunities are also discussed in this section.

The next section of the report provides summaries of the nine countries that provided a case study for the *Online and Blended Learning: Case Studies of K-12 Schools Around the World* book. These summaries will serve as an introduction to the activities happening in these countries, which have an established history of offering K-12 online and blended learning.

The conclusion gives a summary of what is happening in each major grouping of countries, as well as a brief comparison of the state of online learning in the United States of America as reported from the 2009–2010 school year. It summarizes the impact of technology, staffing, legislation, policy, students, and budget/finance. Finally, it presents a global vision for the future of K-12 online and blended learning.

The report concludes with the country Profiles, which contain online and blended learning profiles of all fifty countries in order alphabetically, by continent. It should be noted that the information provided in each of the surveys is from one researcher's point of view; some of the researchers conducted interviews with both policymakers and practitioners, while others relied solely on the published research about the field within their country.

We invite you to take a "trip around the world" to better understand the complex nature of online and blended learning around the globe. It is certainly a challenge that is facing all nations, and we urge you to examine this report.

What is Online Learning?

K-12 Survey data from countries in this study prove there is wide interpretation of what online learning means, and what it looks like. For those that are fairly new to online learning, iNACOL recommends reading the report, *A National Primer on K-12 Online Learning, Version 2*.[3] While this publication approaches online learning from a US-centric view point, it provides a fairly in-depth introduction into many of the key online learning concepts and issues. For the purpose of this report, the following definitions from iNACOL's *Online Learning Definitions Project*[4] will be used.

Asynchronous learning – Communication exchanges which occur in elapsed time between two or more people. Examples are email, online discussion forums, message boards, blogs, podcasts, etc.

Blended learning – Blended learning is any time a student learns at least in part at a supervised brick-and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace; often used synonymously with Hybrid Learning (Horn and Staker, 2011).

Brick and mortar schools – Refers to traditional school or traditional school building, as contrasted with an online school.

Content Repository – A venue for saving and sharing content. A digital content repository is an online venue for saving and sharing digital content.

Digital Learning – Online or blended learning. See "Online Learning" and "Blended learning".

Distance education – General term for any type of educational activity in which the participants are at a distance from each other—in other words, are separated in space. They may or may not be separated in time (asynchronous vs. synchronous).

Face-to-face – When two or more people meet in person.

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[3] Wicks, M. (2010). *A National Primer on K-12 Online Learning, Version 2*. International Association for K-12 Online Learning. Vienna, VA.

[4] International Association for K-12 Online Learning. (2011). *Online Learning Definitions Project*. International Association for K-12 Online Learning. Vienna, VA.

Online course – Any course offered over the Internet.

Online learning – Education in which instruction and content are delivered primarily over the Internet. (Watson & Kalmon, 2005). The term does not include print-based correspondence education, broadcast television or radio, videocassettes, and stand-alone educational software programs that do not have a significant Internet-based instructional component. (U.S. Department of Education Office of Planning, Evaluation, and Policy Development Policy and Program Studies Service, 2010). Used interchangeably with Virtual learning, Cyber learning, e-learning.

Synchronous learning – Online learning in which the participants interact at the same time and in the same space.

State of K-12 Online Learning

K-12 Online learning has the potential to dramatically change the educational experience of every student in any country, providing access to a world-class education with the best teachers and the best resources internationally. The degree to which this potential has been embraced varies from continent to continent, country to country, and region to region based on factors including economics, government support, infrastructure, population, and local district innovation. What is apparent is that a dwindling number of countries adhere to strictly traditional approaches to teaching and learning. To the extent they are able, most countries are moving to leverage technology in the brick and mortar classroom, and in the virtual classroom as well.

Equitable access to the Internet is a critical first step. Numerous countries, including Peru, Russia, and Uruguay, are expending resources to develop infrastructure in all primary and secondary schools. Other countries, like the United Kingdom, Indonesia, and Turkey have developed initiatives for technology integration and e-learning which are being adopted voluntarily at the local school district level. The most progressive countries with respect to digital learning, like Australia and China, have fully online schools serving thousands of students annually.

Capitalizing on widely embraced digital tools, the landscape of the 21st Century classroom will be markedly different than any time in history. The World Future Society predicts that learning will become more personalized, less delineated between seat time and free time, with greater implementation of gaming and social networking. At 800 million users—75% of which reside outside the United States—Facebook proves that trend already exists outside of the classroom. The onus is on national and school-level leaders to tap into the potential that digital learning provides.

The ramifications of digital access to superior education for all students in every country are profound; highly educated citizens will impact the global, knowledge-based economy. The question then arises, what are countries doing in advancing K-12 online learning today?

Trends, Issues, and Challenges

Trends

In reviewing the status of blended and online learning internationally, five distinct trends emerge. Those trends are related to demographics, support from governments and schools, teacher training, the use of blended learning, and the use of online learning.

TREND ONE: Blended and online choices are most available to students in urban areas from developed countries.

Opportunities for blended and online learning are found around the world, but elementary and secondary-level students living in North America, Western Europe, Asia, and Oceania (Australia and New Zealand) have the most access to those choices. Of the 23 reporting countries on those continents, only the Philippines indicated no government funding for blended or online learning. Conversely, merely a third of countries from Eastern Europe, Central and South America, the Middle East, and Africa reported monetary government support. A trend of emergence can be found in Eastern Europe, where Turkey, Slovenia, Albania, Romania, and Serbia all reported at least small programs.

Globally students located in urban settings have the highest level of access to blended or online classrooms, followed by students attending large schools. Less than half of reporting countries indicated that blended or online learning was available to students in rural or suburban settings or to those attending small schools.

TREND TWO: Growth in digital learning stems from shared authority between local schools and national governments.

Almost 60% of the countries in this study reported government funding for blended or online programs at the primary and secondary levels. Funding has been used directly to support national initiatives, and indirectly through financial support of local school districts. Funded national initiatives have commonly taken the form of investments in infrastructure and hardware. Indirect funding through support of school districts has facilitated grassroots development of online courses, programs, and digital repositories for curriculum and resources. Schools in many countries have a high level of autonomy In developing and promoting online and blended learning.

Most countries in this study who reported some level of government funding have national statements, policies or plans supporting the use of technology and learning, though in many countries authority over whether and how to implement those policies has been left to local governments and schools. Government planning, and policies concerning technology, Information and Communications Technology (ICT), and blended and online learning run the gamut from emerging to enacted. A brief overview of national initiatives from selected countries follows.

- A new Ministry of Innovation and Technology has been formed in Albania, although so far no new policy or reporting has been developed.
- Romania indicated a report or strategic plan may be published in 2012 on e-learning.
- Spain declared an intention to advance a blended model of learning but noted that discussions are at the germinal phase.
- Countries with plans related to infrastructure include Peru, Serbia, China, Russia, and Uruguay.
- The United Kingdom, British Columbia, Italy, Finland, Indonesia, and Slovenia all reported national plans for initiatives with technology integration and e-learning but noted that using those tools is the prerogative of the local schools.
- Turkey recently developed a project which aims to equip schools with infrastructure, develop and manage e-content, maintain effective use of Information Communication Technologies (ICT) in classes, offer training to teachers, and maintain secure, manageable ICT integration processes.
- In Australia, by 2012 the new national curriculum mandated for all prep-to-year-10 schools will be available through electronic delivery for those who wish to attend school online, and will include curriculum, resources, and materials. Local governments in Australia must make ICT literacy a priority for all students, without mandating how that is done.
- China's first online school was created in 1996 and has expanded to more than 200 online schools with enrollments exceeding 600,000 students.
- Hong Kong began developing policy strategies for Information Technology (IT) in 1998 that focused on access and connectivity, teacher enablement, curriculum and resource support, and a culture shift to student engagement. Policy strategies led directly to the development of Hong Kong Education City Ltd. (HKEdCity). The HKEdCity repository houses numerous modules used by thousands of teachers and students. The modules contain lessons, multimedia, practice tests and games for math, science, and language.
- Thailand's e-learning programs in science, math, and English—implemented in phases since 2009—have systematically branched out from a small group of schools to hundreds at the primary and secondary levels. Thailand sponsors the Distance Learning Television Station and the Distance Education Institute, which are both voluntary self-learning programs to improve the quality of living and vocational skills for students.
- Singapore developed the Ministry of Education Baseline ICT standards to provide a scaffold for schools to plan and implement online and blended learning programs. Funding in

Singapore provides local schools the ability to develop online and blended learning programs for all subjects, with the intent of improving students' ability to research, analyze, and publish information using a variety of media.

- Indonesia developed a site dedicated to Open Educational Resources (OER) named e-dukasi.net, to facilitate sharing of online learning materials like lessons, test banks, and interactive multimedia for math, physics, chemistry, biology, and other subjects to be used by primary, junior. and secondary schools. The government of Indonesia also created and monitors WAN Kota (Wide Area Network in Cities), a network for parents, educators, and students to share communication and learning materials, and funds an open general secondary school that uses e-learning as the mode of delivery.

As a reflection of the general hands-off approach to directing the use of blended and online learning in primary and secondary levels, fewer than 25% of countries had national quality standards for online courses. Of those, only British Columbia, France, and Greece referenced specific standards that were accessible online. Thailand and Finland both indicated that online education must meet the quality standards set for all basic education, regardless of delivery method.

TREND THREE: Specialized teacher training is not required but is encouraged and available.

Of the countries that reported government funding for online or blended learning, 11% indicated that a specific license or credential was required of a teacher before teaching in an online or blended classroom, and 25% required specific training. Countries that require specific training include:

- For a school district in British Columbia, Canada, to receive approval from the Ministry of Education to operate a distributed learning school, it must agree to hire only educators with training or experience in distributed learning methods and to provide ongoing training and professional development on distributed learning.
- Teachers in Singapore attend short courses on facilitating online sessions provided by the Ministry of Education, the National Institute of Education, or the IT department of their school.
- In Hong Kong, teachers must achieve a basic level of knowledge prior to graduation.
- Teachers in Slovenia attend seminars and conferences, often listed in a catalogue of educational initiatives for ICT. Teachers may also receive training from the ICT expert employed at their school.
- In Spain, teachers can access training online through the Instituto de Tecnologias Educativas website. Training materials are free, self-paced, and available for download at a teacher's convenience.

More commonly, countries indicated that general teacher training and licensure were sufficient to teach in a blended or online classroom, though professional development was available to improve online pedagogy and technical skills. Seventy-two percent of the countries reported that their online and blended classroom teachers participated in professional development for online teaching,

particularly after they started their positions. Universities and colleges were reported as the primary source of training for educators, followed by regional centers and local schools.

Quality standards for online teaching are not prevalent, as only seven countries reported their use: China, France, Australia, Slovenia, Egypt, Serbia, and Nigeria. However, Serbia's standards are targeted at higher education, and Slovenia's standards are technology standards, not teaching standards.

TREND FOUR: Blended learning is occurring with much greater frequency than online learning.

Thirty-five of the 54 countries responding to this survey indicated that online and blended learning opportunities were available to at least some students. As noted in the "Issues" section of this report, there is wide interpretation globally of what online learning means, and many countries use the terminology to include any learning that involves technology. If blended learning is interpreted as learning that occurs when technology is used to support in-class activities for students who are in a physical classroom, and online learning is interpreted to mean learning done exclusively online with no physical classroom presence, then online learning is only being marginally used internationally.

- Singapore reported that pure online learning is not a priority since the city is small and well connected. However, blended learning is used as a complement to classroom learning.
- Denmark indicated that learning exclusively online is not a national goal but forms of blended learning are encouraged.
- Both Germany and Denmark allow 25% of gymnasium education—the three years between high school and university—to be online, though Germany indicated that blended learning is a big part of education.
- Italy has used LIM and Classi 2.0 (tools and projects to enhance multiple models of innovation in the classroom) to provide resources and devices in a blended classroom approach, but online programs are not available to the general student population.
- The Czech Republic reported some use of blended learning but asserted that face-to-face education is vastly dominant.
- Argentina has funded computers for students to use in a blended learning environment.
- Slovenia's Ministry for Education and Sport has sponsored initiatives for online content to be used in a blended fashion.
- Greece reported a move toward e-books and online exercises in traditional courses.
- Romania indicated that e-learning tools have been used to enhance the classroom experience but claimed that the Internet has played an insignificant role in public education to this point.

TREND FIVE: Use of online learning is most prevalent by students with special circumstances.

While online learning is an option for some students globally, it is used far more frequently to meet the needs of students with extenuating circumstances that prevent them from attending the physical, traditional classroom. Countries like Belgium, Italy, the Czech Republic, Russia, and Slovenia reported that online learning was used most commonly for student athletes, students with chronic illness and disease, and those who were hospitalized, homebound, incarcerated, and severely disabled.

Few countries have widespread opportunity for the general student population interested in online learning. Exceptions are New Zealand, Australia, Turkey, China, and British Columbia.

- In New Zealand the Virtual Learning Network and Virtual Learning Network Community, both established from grass-roots movements at the local level, serve 13 e-learning communities from 268 schools. Over 1,500 students in New Zealand, primarily from the secondary level, participate in online classes and programs.
- Australia has a lengthy history of providing access to online education for all students. Schools of the Air have been in operation for over fifty years, with at least five K-12 online learning programs.
- In Turkey, open primary and secondary schools utilize e-learning facilities to deliver distance learning programs. The curriculum has historically been delivered through television, radio, and print but has rapidly grown to include the use of the Internet.
- More than 200 online schools serve over 600,000 students in China. Over 120,000 live in Beijing alone, with one school, Beijing No. 4, serving more than 60,000 middle school students. An additional 200,000 students are enrolled in tuition-based online schools.
- Online schools in British Columbia, Canada, provide complete programs or individual courses to 71,000 students, which is about 12% of the student population.

Issues

The results of the surveys from each of the countries indicate a commonality of issues which exist regardless of country, irrespective of whether or not the data comes from a rural or urban area, and irrespective of the degree or level of implementation of online learning being reported from that particular country.

The survey results and international case studies themselves indicate that one of the major issues is that there is no clear international understanding or standard set of definitions to clarify exactly what online learning comprises. The actual term "online learning" means many things and is not necessarily correlated to the term "virtual education" in many countries. A second issue appears to be the lack of equitable access to Internet tools or resources to even make online learning possible in many areas. Common to all countries reporting is the issue of the lack of specific policies which would drive or promote government funding of online learning at the same levels of traditional learning. The role of the teacher or administrator and the chronic need for training is an international issue, which must be addressed according to the data being reported from each of the countries.

While there are other secondary issues, the final issue being discussed here is the actual student population that is being serviced by online learning and the questions which arise when analyzing that data.

ISSUE ONE: No clearly defined international understanding of online learning.

While the definition of online learning in the United States clearly represents virtual education wherein the teacher is remote from the student and that student may or may not take the course in a classroom, there is actually a wide range of interpretations regarding what online learning means, based on the data from respondents.

- In general, the term "online learning" is used to identify any kind of learning that involves information and communications technology (ICT) but does not necessarily have anything to do with virtual education.
- For purposes of the study, many countries reported an increase in the growth of online learning, but in actuality they were referring to an increase in the number of school websites, the number of schools accessing online resources, and the number of teachers actually integrating the use of technology into the traditional brick-and-mortar classroom. The impact of this information would suggest that while the data has indicated an increase in online learning internationally, a more specific increase is taking place in the use of digital content or digital resources in the traditional brick-and-mortar classroom.

ISSUE TWO: The lack of equitable access to the Internet, technology tools, and resources for online learning.

Within this category, there are a number of secondary issues, some which are of course anticipated. A number of countries reported a serious lack of equity across geographical regions or socioeconomic groups when describing Internet accessibility to student populations.

- Many countries still report a widening of the digital divide, a serious issue when considering how many children still do not have access to the Internet outside the traditional classroom and how many classrooms in rural areas or areas of high poverty in many countries still do not have Internet access at all. For example, the report indicates that in Turkey access for students outside the urban areas is rare, while in China—where competition for high-end academic seats is intense—student access to the Internet is seriously limited for most families.
- The role of the private sector and the influence of corporations delivering online tutoring are increasing in importance for those families who can afford to pay privately for students to prepare for high-stakes exams.

The respondents from Canada identify restricted access that is due to restraints of a budgetary nature or caused by regulatory issues.

- The report highlights that mobile technologies and the desire for online learning have been highly adopted by the next generation of digital students, but the schools remain "locked

down" to open use of devices due to firewalls, the role of IT specialists, and the lack of open access due to old policies and standards. In other words, while student demand has increased, the ability for students to access the available technologies has not kept pace.

- The tremendous advantages of online learning and the integration of technology into the classroom have been acknowledged, but online learning is heavily state regulated, and therefore is slow to grow. The data illustrates that all provinces have established distance education programs, many of which are transitioning to a fully online delivery model. While there is growth in many of the provinces and territories, because online learning is still largely viewed as a substitute when face-to-face learning is not feasible, it has been subject to budget cuts that have led to decreased access for online courses.

In essence, the issue of inequity of access to the Internet or technology can be described as two forms of a digital divide.

The first is the digital divide established when there is a monetary or geographical lack of resources that blocks a student or group of students from having access to the Internet, technology, or the tools and resources which are necessary for the implementation of online learning. The second can be described as a digital competency divide, wherein the resources, materials, and access may be available, but due to policies or regulations, access for students, teachers, or administrators is hindered. Consequently, the lack of teacher training and other supports associated with the use of these technology tools results in a lack of competency in the use of technology and thus significantly reduces the growth potential for online learning.

ISSUE THREE: A lack of government funding or policies to promote online learning versus traditional brick-and-mortar schools.

A number of responding countries indicated that technology integration initiatives are being funded by local and national government agencies, but most of the initiatives focus on integration of technology into the traditional classroom, and are not targeted for online learning.

- In Albania, the government has financed primary and secondary school access to the Internet, but there are no online schools available to meet the needs of students who may wish to take online courses; therefore, the Internet access is again primarily for use in the traditional classroom. In Macedonia, online learning is still not officially recognized, highlighting the wide range of government policies from country to country.
- New Zealand, where the early focus of online learning was the use of correspondence courses, reports that the Ministry of Education provides hardware and software for schools and has supportive policies in place, but online learning for K-12 is left to the discretion of the local education authority.
- In Australia, where there are major national moves for education reform, and where there is national interest and support for online learning, the implementation of online learning is still very individualized and decisions are made on the local level.

ISSUE FOUR: The need to focus on teacher training and their role.

There is much diversity in the expectation set for teachers, administrators, and IT specialists working in the education environment. In general, most of the countries reported the expectation that teachers will be qualified to teach but will not be required to have any particular training in the area of online pedagogy. Most countries also indicated that teachers themselves have a lack of access to technology for mobile devices and indeed many do not even have access to a laptop as an essential instructional tool. While the demand for personalized learning for students has increased—and the benefits are undisputed—the major issue seems to be that the role of the teacher has clearly changed, but there is an international lack of focus on teacher training. This lack of training is not only in the use of new technologies, but also in the methodology and pedagogy necessary to fully understand how and why technology can positively impact student performance when in the hands of a competent, highly qualified teacher.

- Through educational reform initiatives, Australia reports the establishment of new national teaching standards involving expertise in e-learning; however, these new standards seem to focus primarily on integrating technologies into the classroom. Teachers are asked to demonstrate the use of educational technology, digital resources, and tools provided for classroom use, including the digital learning resources provided in a national collection of digital content resources and technology infrastructure.
- In New Zealand there are currently no formal requirements for teacher training in online education, and it is up to the local school to train or to allocate resources if there is an interest in online education or integrating technology into the classroom. It should be noted that the Ministry of Education for New Zealand introduced a pilot program to run from 2010 through 2013 regarding the implementation of virtual professional development, but again this is primarily focused on delivering virtual education to teachers and is not concentrated on teaching the pedagogy behind delivering online instruction to students.
- Respondents from the United Kingdom indicate that due to budget cuts, and an identified lack of time in the instructional day, teacher training has been severely limited.

ISSUE FIVE: The kinds of students being serviced by online learning is often limited to students with extenuating circumstances.

While online learning reported by most countries appears to be blended learning where technology is integrated into the regular brick-and-mortar classroom, true online learning appears to be largely limited to students with extenuating circumstances. Those circumstances include students who are geographically isolated, are traveling overseas, have medical issues, or who have selected home education and have access to virtual education. In many countries, the use of virtual education is only used for remediation, credit recovery, or in situations where a face-to-face instructor is not affordable or cost-effective.

This subtle issue will have a wider ranging impact on the growth of online learning. If online learning continues to be perceived internationally as something that is only for the student with extenuating circumstances, there is the possibility that virtual education will eventually be deemed that which is "out of the ordinary" or "less than mainstream." While each of the populations being served in this manner obviously benefit from online learning, limiting student access to only this group of students

causes a serious gap and misses the huge potential that online learning can have, not only for the individual student or school, but also for the larger impact of systemic change and educational reform.

Challenges

Of the countries participating in this survey, 41% indicated that there are no government-funded online learning programs or opportunities available in their country. Some of the reasons for the lack of access to online and blended courses were also common issues for countries who do provide these opportunities for students. Among the most significant barriers are limited knowledge about—and thus limited interest in—online learning. A lack of vision and leadership to create policy and invest funding further stymies growth. As well, several countries who reported no government funded online learning programs have limited economic resources and cannot afford to invest in the technology infrastructure, the content and training, or the computers for teachers and students. Many of those countries indicated that large parts of their country do not even have electricity, which is understandably more of a priority than computers and access to the Internet.

CHALLENGE ONE: A lack of knowledge about online learning.

Many countries reported that a lack of knowledge about the practices and benefits of online and blended learning were the main reason it had not been implemented in the country. This is a relatively new way to educate students and may be happening at the university level, but they were not aware that it could or was being implemented in elementary and secondary schools.

In the United Kingdom, all schools have access to computers and the Internet, but policymakers and schools are unaware of how they can be used to personalize education for each student, as well as to offer courses that are not available onsite. Bulgaria also expressed a lack of interest in providing fully online courses. They are using some digital content to supplement the face-to-face classroom experience but feel there is not enough research to show that it is an effective practice. Their system is very conservative and changes are made slowly, but they are starting to provide some content and need the research in order to move forward in providing access for all students.

While the United Kingdom and Bulgaria are using some technology and the Internet in some classrooms to supplement learning, countries such as Albania and Serbia indicated that they do not know how to get started. Peru has indicated no real concern for the opportunity and resources that online learning provides; they have no knowledge about its importance or benefits, which is the reason there is no online or blended learning there. Similarly, Belgium states there is no resistance to implementing it; however, there just has not been any extensive thought put into it because of the lack of awareness.

CHALLENGE TWO: Sporadic interest in online learning.

A lack of interest in implementing online learning, from both government and schools, was another challenge for countries participating in the survey. Malaysia and Serbia have no interest in implementing online or blended learning, but there are other countries where pockets of interest do exist. Many countries indicated that there were no government-funded programs due to some of the other challenges; however, private schools were offering online and blended learning options for K-12 students in countries like Burkina Faso, where some interest was indicated, but it was not widespread.

The Czech Republic shared that they provide some frameworks to support online learning but there is no unified system. This is similar to the Republic of Macedonia, where they have started a "Computer for Every Desk" program and are providing some online professional development for teachers, but it is up to each teacher to determine how to teach using the computers. They are starting to see a few schools using online and blended learning by investing in learning management systems (LMS), but those schools are in the minority. Similar to these countries is India, where nothing has been formally introduced in the country's public schools, but there are several private companies, such as Educomp, and schools providing services and courses. However, the government is currently working on ICT policies and expects online education to be a part of these in the future.

Of note in the response from Bolivia is the impact of crisis on online learning. As a direct result of the high levels of absenteeism during the H1N1 influenza pandemic two years ago, a number of private schools developed their own virtual classrooms. However, the idea of using online learning did not transfer over to the public school system as it has in countries like Hong Kong and Singapore.

CHALLENGE THREE: Illiteracy and access to technology.

Access to technology and an infrastructure was a problem for implementing online and blended learning programs, and it is also a challenge in that many of these countries do not even have access to electricity. Also, the majority of their populations are illiterate, including computer literacy, making it hard to provide these options for students.

Several countries are not providing online and blended learning because they have no access to computers, the Internet, and in some cases, even electricity.

- In Mozambique, only 1% of the population has access to the Internet, and only 12% have electricity.
- Guatemala has insufficient Internet services in rural areas.
- Botswana has very few Internet providers, the prices are unaffordable, and desktops are still considered a luxury.
- Bolivia ranks 121 out of 139 countries for Internet access in schools, and the few schools that have Internet access are private, according to the 2010–2011 Global Competitiveness Report.

- There is a lack of infrastructure in the Philippines. Their power and electricity costs are among the highest in Asia, and a number of provinces experience an unstable power supply, with occasional power outages even for basic power needs. Internet costs, although decreasing, are still high for the average and poor households.
- Hungary has no Internet access and very few teachers are technologically literate.
- The Gaza Strip gets international aid, and in the last 10 years, this has been targeted toward the immediate needs of the people, like food and shelter, rather than the need for developing the ICT infrastructure.
- Many villages in Pakistan do not have electricity, and the whole country has blackouts due to a shortage of electricity. Many public schools are turning into private schools.

The challenge of bringing the Internet and technology to these third-world countries involves the illiteracy rates in these countries, which includes not only the ability to read and write, but also computer literacy. Nearly half of Mozambique's population is illiterate, and there is a deficit of schools. If they were able to get Internet access, there is great interest in using online learning to provide education in general to the students and families in the country. Sudan considers their population to be computer illiterate. They have very limited access to technology and computers and consider this to be their biggest challenge to implementing online learning.

CHALLENGE FOUR: Lack of funding.

Funding as a challenge and reason for the lack of implementation was a very common response. Because of the lack of vision and policies supporting online learning and the declining economy and budgets in several countries, funding is not a priority for most of these countries. As a result, there has been no investment to get programs started. In addition, the lack of funding to invest in hardware, curriculum, teacher training, and other needs for starting an online or blended learning program is a challenge for many countries.

Burkina Faso and Kosovo respondents indicated a lack of finances as they are very poor countries and cannot provide any of the above services. Kosovo is the poorest country in Europe with an unemployment rate of 47%, which has resulted in online opportunities only being available in the private school market. While Spain has an infrastructure, they lack funds for new equipment. Greece and El Salvador noted funding as the main challenge as there is no government funding provided to implementing online learning.

CHALLENGE FIVE: Lack of governmental vision and leadership.

The biggest challenge for countries that have not implemented online learning is their government's lack of vision and leadership. Many government officials may not even be aware of the practices happening in education or show no interest in them, which is indicated as another challenge. Some countries have hopes for implementing online learning in the future, but at this point in time, advocacy and education at the national government level is needed in order to get the current policies changed.

Policies in some countries make it illegal or prohibit the use of online learning in public schools, which is a huge challenge. Specific student populations (medically homebound or athletes) can sometimes get special permission to participate in online courses, but the majority of the population is prohibited.

- In Brazil, the practice of online learning, which they consider to be the same as homeschooling, is forbidden. Teachers' unions believe this type of system is bound to dehumanize the process of learning and is likely to create antisocial, over-individualistic students who are lacking the social skills required to live harmoniously in society. Brazil's Law of Directives and Basis for National Education states that students must have a minimum attendance in 75% of classes and that teaching must be face-to-face.
- Poland's legal framework of education for primary and secondary schools does not allow them to deliver education through online courses, and there are no new policies being prepared by the Ministry of Education.
- The Russian Federation has a high level of regulation for the learning process that does not allow any alternative types of education to be used.
- Romania's education system is centralized. Homeschooling and distance learning are not recognized by the educational bodies. Blended learning, the regular use of e-learning software, does not currently allow teachers to meet their learning objectives, partially due to the limited time and the overloaded compulsory curriculum.

Whereas the above countries do not allow online learning by policy, many countries' governments simply lack the vision, leadership, and knowledge to develop policies to implement and provide online learning. These countries usually have no policies to approve or deny student access to online learning, which becomes a separate challenge. Schools need to be shown that online learning exists and how it can be implemented to provide students access to courses they may not otherwise have or to individualize their learning.

- Guatemala has no specific policy that has been approved or implemented.
- Turkey needs a systematic and extensive implementation plan. Individual schools, administrators, and teachers are resistant to change in their face-to-face approaches.
- In the Slovak Republic, online learning has not been reflected in the legislation yet. The current legislation requires attendance in face-to-face schools.
- In South Africa, online learning in public schools is in its infancy. The state and provincial education departments lack the capacity to operationalize the strategic objectives of the e-education policy white paper (2004).
- Pakistanis are not ready for online learning, which the respondent noted the government may be blamed for, but they are also not resistant to it. Education has not been a top priority of the government, and in most of the rural and urban public sector schools, the basic infrastructure is not available, as well as computers or access to the Internet.

Government and school leaders must understand how online learning works and its benefits before they can create policies to support and implement courses and programs. However, several survey participants noted that there was widespread corruption within the government and school leaders, which led to the challenge of implementing online education, let alone any type of quality education.

Further Illustration through Case Studies

In addition to the surveys presented in this report, authors from nine countries provided a more detailed discussion of K-12 online and blended learning, based on a series of questions or prompts concerning these thematic areas: teacher professional development, online content, online courses, policy, and leadership. Below are introductions and/or summaries of the content that was provided in those case studies. The complete case studies for all nine countries are contained in iNACOL's book, *Online and Blended Learning: Case Studies from K-12 Schools Around the World*, which was published in November 2011.

Australia

The Australian education system is very similar to the American education system. Both are federal systems with a great deal of local control. Both are standards-based systems that have introduced for-profit corporations into the education system through charter schooling. However, there is little similarity in how online and blended learning are defined.

While the author of this case study used the terms online learning and blended learning, in almost all instances it was referring to technology integration. For example, in discussing the training of teachers to teach in an online learning environment, the author described the normal teacher certification process and how those programs usually include a course in how teachers can use e-learning and information and communications technology (ICT).

While not included in the case study, it should be noted that Australia has a long history of distance education at the K-12 level, which goes beyond technology integration. There are 15 different Schools of the Air that have been in operation for more than 50 years and several school systems that have used audiographics to deliver K-12 distance education. There are five K-12 online learning programs: Tasmanian eSchool (Tasmania), Grampians Virtual School (Victoria), Northern Beaches Christian School (Terrey Hills), Virtual School for the Gifted (Perth), and Virtual Schooling Service (Brisbane).

China

A third of the people in China had access to the Internet in 2010. However, there are no official statistics on the number of schools that are connected to the Internet. Approximately 50% of all junior and senior high schools do have school websites, which is the only measure that can be provided at this stage.

The author of the China case study took a broad definition of online learning to include all aspects of technology-assisted learning. This means that when teachers instruct their students to use the Internet to search for information for a research project, visit a website to complete an activity, or use a blog to keep an online journal, these activities are all considered to be online learning. Essentially, activities that are generally referred to as technology integration in North America were included under the umbrella of online learning.

There are several nonprofit, and even for-profit, ventures that have created websites to provide these kinds of online resources. Resources, similar to Thinkfinity but ranging in quality from those created by teachers with very little technical training to those created through corporate development, support the integration activities of teachers and facilitate student access to a wide range of learning objects.

Using a North American understanding of online learning, the main examples of online learning appeared to focus on the use of for-profit online tutoring. In China, like many other Asian nations, the nature of the schools that a student attends—from elementary to high school to university—is based upon the student's performance on standardized examination. Due to the high-stakes nature of these exams, many parents invest in tutoring for their children. For-profit companies that provide online tutoring services appear to be the closest example to K-12 online learning in China, based upon this case study.

Finland

In Finland, online learning is included in the government's national plan to develop educational technology, but its implementation is mainly at the local level and with the teachers. There are no governmental licensing requirements or special credentials required to teach online. It is considered a teaching method and source of content the same as any other, with no special standing in evaluation, quality assurance, procurement, or otherwise.

The online learning content comes from commercial providers and public initiatives but is created mostly by the teachers themselves. All teachers in Finland have at least a master's degree, giving them a good foundation to create and develop their own course material independently. The large educational publishers have their own online content materials, but they are mainly focused on supporting the existing book sales.

In higher education, the Finnish Virtual University (FVU) is a partnership of all 21 Finnish universities. It develops and supports collaboration among universities in the utilization of educational technology. As a consortium, it develops information, network-based training, and educational services for the shared use of its member universities. The government-funded the project and it has generated tangible results, such as developing 460 online courses in 2001–2002 according to the Ministry of Education. The FVU partnership ended in 2010; however, all 21 universities continue to do business individually.

While not discussed in the case study, Finland does have a single national virtual school that has been in operation for some time now.

Hong Kong

Hong Kong is a country in transition; the change in stewardship has resulted in a new focus in language instruction. Many of its universities attempted to create virtual learning spaces prior to 1998. In 1994, The Chinese University of Hong Kong established the Hong Kong Education Information Network, which was later renamed Hong Kong School Net, a rarely used service that provided local dial-up services (e.g., email, ftp) for teachers. After the School Net, another dial-up-based service called Hong Kong Cyber Campus was promoted and supported by government funding, and in 2000, the Hong Kong Cyber Campus became the Hong Kong Education City (HKEdCity).

Like other countries, personal technology improvements outpace the improvements in school-based technology. Spurred by new policies, educational technologies have been widely implemented in schools in the past decade. The policies include strategies for the implementation of educational technologies in schools, as well as digital content with student participation a key element. One policy has a goal to foster students' attitude and ability for life-long learning. The policy listed four areas of focus: access and connectivity, teacher enablement, curriculum and resource support, and community-wide culture. There is also the need for a paradigm shift from a textbook-based and teacher-centered mode to a more interactive and learner- or user-centered mode in order to adapt to a new era.

Hong Kong Education City (HKEdCity, a nonprofit subsidiary of the government) was given the responsibility of promoting online learning resources and to play the role of a market facilitator. This organization is free for teachers to use and contains an online question bank, learning objects, and modules, along with a self-evaluation platform for teachers to measure their technology use in the classroom. In 2009, there were over 200,000 teacher participants. In order for students to use HKEdCity, their teachers must sign them up for the program. An HKEdCity poll, completed in December 2010, sampled teachers' attitudes toward online learning and reported that teachers felt positive about online learning, performed searches for online sources regularly, and were receptive to online source implementation.

In 2010, a Hong Kong policy recommendation stated that digital learning must include the implementation of debundling textbooks and teaching materials for pricing and launching of the pilot scheme on e-learning in schools, as well as the acceleration of the development of the online repository of curriculum-based learning and teaching resources, with a view to enhancing students' effectiveness in learning. This resulted in a program to enable all 410,000 primary and secondary students in 300,000 low-income families—especially the 8% without Internet access at home—to gain access to the Internet for the purpose of learning. The Working Group on Textbooks and e-Learning Resources Development recommended a three-year pilot scheme on "Promoting e-Learning" to launch in 20 to 30 local schools in the 2010–2011 school year and to give more resources to HKEdCity's Depository of Curriculum-Based Learning and Teaching Resources. More resources in the form of a one-time grant are given to all local schools, amounting to some $30,000 to $70,000 per school, for purchasing e-learning resources for students and teaching materials, as required over a three-year period.

In 2002, following the SARS outbreak, the schools were forced to close down. Despite the challenges of actual implementation, online systems were able to help facilitate school plans for

communicating with students, parents, teachers, and the community, as some schools closed down at critical times, such as during exams. In 2008, H1N1 (Avian/Swine Flu) hit Hong Kong; however, online learning enabled schooling to continue and 560,000 of all Hong Kong students to study at home. Yet, after what seemed like a seismic shift toward online education from both of these pandemics, schools resumed their traditional teacher-centric modes when students returned to classrooms.

India

There are major challenges to education in India. Illiteracy rates average around 32%, and students spend only 4.4 years in public schools, resulting in only 50% of students attending school after their primary years. Education facilities are rated as "poor," and teacher absences appear high, with nearly 25% of teachers absent on any given day. Students cannot learn in teacher-centric schools when teachers are not present, which may be causing the move of enrollment away from the government-operated schools that serve 70% of the nation's children. At the rural level across the country, private school enrollment increased from 16.3% in 2005 to approximately 22.6% in 2008—an increase of about 40%. It is safe to assume that there is an even more significant private school enrollment over government schools in urban India.

The online market appears to be small, as online education courses are predominantly supplemental in nature and are not offered under the prescribed academic curricula in the country. Yet, there is an increasing demand for supplementary classes, as evidenced by the fact that 31% of the eighth grade students in government schools and 22% in private schools, who paid for additional tuition. Because a student may take more time grasping the concepts of one subject over others and may require additional lessons, it is believed that this supplemental education increases the learning outcomes of students.

Because the government has no formal online programs, standards for quality, or acceptance of course credit, there are no regulations, standards, or certifications for online education. Therefore, the private sector is developing its own standards and practices. The school curriculum acts as a framework for the content, and the quality of the content is determined primarily on the basis of the client requirements. In online courses, students can move at their pace through the content. However, interaction between the students and between the student and the teacher is limited to the time the course is being conducted online. As an example, one company provides the feature where students can interact with one another as long as they are in a virtual classroom. A second company's courses are conducted in a classroom in the presence of a teacher and other students, so there is greater student-teacher interaction, but students are not able to move at their own pace. Professional development for online teachers is also provided by the private companies.

New Zealand

Given the geography and population distribution of New Zealand, distance education has been utilized for K-12 education. Beginning with a print-based medium, over time the Correspondence School has become so entrenched as an accepted delivery medium, it is now codified in legislation.

The transition to the online medium began with the Canterbury Area Schools Association Technology (CASATech) initiative over twenty-five years ago. Similar to many North American jurisdictions, K-12 online learning initially focused on rural schools serving all grades from Year 1 to

Year 13. In fact, many of the early K-12 online learning initiatives had a rural focus (e.g., OtagoNet and FarNet).

It was from these early initiatives that the Virtual Learning Network was developed. Essentially, the Ministry of Education provides hardware and software resources—such as access to a learning management system and support for a video conferencing bridge system—while the individual e-learning clusters provide K-12 online learning opportunities, professional development initiatives, and other technology-based projects.

At present, there are approximately a dozen active e-learning clusters. There are also another half-dozen clusters that are just beginning to emerge, most of which are based in urban areas. Additionally, the Correspondence School has begun the process of transitioning some of their courses to an online delivery format.

Singapore

Within the island nation of Singapore, online learning is used to support the classroom; however, it is not used to support learning from a distance. Their main purpose for online and blended learning is to prepare students for a collaborative and technologically savvy society.

The majority of younger students (i.e., 7- to 14-year-olds) use the Internet for educational purposes. Educational technology officers who are employed by the Ministry of Education support clusters of schools in their use of technology for learning. Schools also have ICT personnel to help teachers and students with technology and technology training.

Blended learning, rather than purely virtual classes, is the norm. Teachers conduct learning activities using online tools. Online teaching skills are required as part of the professional development program for educators. Courses are provided by the National Institute of Education or professional development organizations. However, there is no prescribed set of qualifications or training that a teacher must engage in to teach online.

The online content quality assurance program consists of a self-assessment tool referred to as the "Benchmarking Your IT Practices for Excellence in Schools." Additionally, the Ministry of Education has baseline ICT standards that schools can refer to for their online learning initiatives. There are also technical guidelines for distributing online learning, which are set by the Information and Technology Standards Committee of the Singapore Standards Council.

Turkey

At present, online learning is still largely focused at the post-secondary or higher-education level in Turkey. While there are extensive and longstanding K-12 distance education programs, the use of K-12 online learning is still limited due to access and infrastructure issues. The K-12 distance education programs that are currently operating have a focus on underserved populations, particularly students in rural areas.

The main K-12 distance education programs are operated as open schools, modeled after other open education institutions throughout Europe (such as the Open University in the United

Kingdom). Historically, this has meant a print-based delivery of K-12 distance education. However, there has been a recent transition to digitize the content. At present, that digitization has focused on the creation of video and audio files, converting print material to PDFs, and online multiple-choice testing, which has resulted in a digital curriculum that is largely an online version of the former correspondence materials.

One of the reasons for the historic focus on print-based materials, and even the creation of low-bandwidth online materials, is due to the fact that Internet access outside of the urban areas is still quite low. Even within urban areas, most students appear to access the Internet at school, in libraries, or through Internet cafés.

Beyond the K-12 distance education initiatives, as in many European countries, the national government in Turkey has embarked on a number of technology integration initiatives—many which include or focus on Web-based curricular materials and activities. The primary purpose of these initiatives is for classroom use, although it is possible that they could be used in distance education initiatives.

United Kingdom

In the United Kingdom, spending constraints and budget cuts have eliminated much of the funding that supported the government department that ensured the use of technology in learning, the qualifications and curriculum development agency, and the national curriculum website. These cuts were seen as a way to decentralize control over learning and technology and give that control back to the local schools.

There is no government organization that oversees quality standards for online teaching or online courses. Additionally, there is no governmental master strategic plan for online learning on a national scale. However, the Ministry of Education and the Infocomm Development Authority shape the direction of online learning to set a strategic mission. Currently, the government provides funds to local authorities so that they allocate funds for online curriculum, hardware, and software based on their local needs. They usually purchase services and products from private vendors.

The majority of students have access to online resources, and there is a fairly high ratio of students to computers in the schools. Most of the efforts to use technology for learning occur at the secondary level. There is, however, good support for assistive technologies in schools.

Of the online learning that does exist, it is most often used to support courses for medically homebound students, students with special scheduling considerations, students for whom work is a priority, and students with special needs. There are no government licensing requirements for teachers who teach online, except that they must be qualified to teach. Furthermore, there is no extra training provided to teachers for teaching online. Yet, teachers typically create the content for online courses and a learning management system is used to deliver courses.

Conclusion

A final analysis of the data from the 50 countries represented in the survey indicates the trends, issues, and challenges that are common across borders and also illustrates some similarities with the trends and issues that were revealed in the 2010 *Keeping Pace with K-12 Online Learning: An Annual Review of Policy and Practice*[5] report on online learning for the United States. The surveys and case studies provide a new lens from which to view the state of online and blended learning around the world. As was the original intent of the research, the data gives much-needed information for the practitioners, policymakers, and corporations involved in education and technology and the integration of both in the virtual world. The global perspective provided helps to form a vision for the future of K-12 online and blended learning internationally.

In following the focus themes of the survey questions, one of the major areas to be addressed is that of government involvement in online learning. In areas such as planning, finance, and leadership, there are major differences from country to country. Government initiatives range from countries with legislative and policy support, expansive technology support, and large-scale opportunities, to countries where all decisions about the integration of technology or the use of online learning is solely at the discretion of the local government or school. Similarly, financial support for a full integration of technology in the form of online or blended learning varies greatly, not only from country to country, but also between regions within those countries. Even within countries where there are major national initiatives, and where there is much anticipation and hope for the expansion of online and blended learning, there is still much work to be done toward an actual comprehensive implementation plan of any scale.

An examination of the data showing the numbers of students taking courses online and the geographic areas in which they reside indicates that the major factor at this time is a socioeconomic one. At one end, there are those countries that do not permit the use of online classes for general education purposes, restricting the use of online education to students with special needs, students who are traveling, and students with other similar extenuating circumstances. In those countries where online education is accepted and indeed encouraged, access to this resource may not always meet the demands from the students. In some cases, it is left to the parents who can afford to purchase access to virtual education for online tutoring services, advanced courses, or other

[5] Watson, J., Murin, A., Vashaw, L., Gemin, B., and Rapp, C. (2010). *Keeping Pace with K-12 Online Learning: An Annual Review of Policy and Practice. Evergreen Education Group. Durango, Colorado.*

enrichment opportunities to provide those online classes and experiences for their children. In areas around the world where there is a willingness to provide online or blended learning opportunities, the lack of funds from either the national, federal, or local government has restricted the actual use of these technologies by students and teachers. This creates awareness for those in the educational community and those corporations supporting educators to be increasingly cognizant of finding cost-effective ways to expand opportunities for all students to access online and blended learning.

The area of instructor professional development and training for teaching online and blended learning is a global concern. While there is much focus on infrastructure, technology tools and resources, additional emphasis on practices to ensure that teachers are prepared to teach in this new environment would have merit. Though there are some countries with plans in place to identify teaching standards for online learning, there are no countries that have established or implemented a comprehensive or systemic "retraining" of the entire educational profession. In areas where localized instructional professional development has taken place, it has generally focused on training teachers and support staff on how to use particular tools or technologies which are vendor-specific, and not on the pedagogy necessary to deliver instruction in a new way. This will no doubt continue to be a challenge until there is a comprehensive legislative examination of the issue and allocation of the necessary funding to implement instructor professional development.

One pattern of strength in many responding countries was the recent creation of repositories for digital content, curriculum, assessment and resources. Additional strides to establish national standards for quality online courses and quality online teaching would be a possible next step. Standards may provide a more consistent experience, and may influence student achievement, retention and satisfaction in online courses.

When looking at the data provided in the surveys regarding the technology being used by students around the globe, it is important to note that the data was not reported by the students directly. The data clearly indicates the existence of the digital divide, which identifies those countries where students have little or no access to technology devices or the Internet outside of the school setting; however, there are some reports indicating the frustration of the digital native who has personal access to mobile smart technologies and who is ultimately more ready than the schools or educators to learn in an online or blended environment. It is this data that will drive the vision for the future of online and blended education. As in many other industries, the public demand for a product may actually serve as a catalyst for systemic change. If today's K-12 students begin to challenge the system as it exists, and demand more online classes and ease of access to online resources, they will prove to be an effectively disruptive force, creating a change from the inside at a rapid pace.

It is anticipated that the recent international surge in online and blended learning will continue to grow at an exponential rate. With its vision for K-12 online and blended learning, iNACOL has clearly established high-quality standards for course development, online teaching, and virtual school protocols, which can serve as a framework for those promoting the expansion of online educational opportunities. Indeed, the Digital Learning Now initiatives, which are driving statewide legislation across the United States, have been identifying these standards for high-quality online implementation. It is hoped that educators, legislators, policymakers, technology experts, corporations, and philanthropic organizations will utilize this report to review their own place in the world of online education and will focus their efforts on building and improving the quality of online and blended learning experiences for K-12 students around the world.

Country Profiles

AFRICA


TUNISIA
MOROCCO
ALGERIA
LIBYA
EGYPT
WESTERN SAHARA
MAURITANIA
MALI
NIGER
CHAD
SUDAN
ERITREA
SENEGAL
GAMBIA
BURKINA FASO
DJIBOUTI
GUINEA BISSAU
GUINEA
BENIN
NIGERIA
SIERRA LEONE
CÔTE D'IVOIRE
GHANA
ETHIOPIA
LIBERIA
CENTRAL AFRICAN REPUBLIC
TOGO
CAMEROON
SOMALIA
EQUATORIAL GUINEA
UGANDA
REP. OF THE CONGO
KENYA
SAO TOME AND PRINCIPE
GABON
DEMOCRATIC REPUBLIC OF THE CONGO
RWANDA
BURUNDI
TANZANIA
SEYCHELLES
MALAWI
ANGOLA
COMOROS
ZAMBIA
MOZAMBIQUE
MADAGASCAR
ZIMBABWE
NAMIBIA
BOTSWANA
SWAZILAND
LESOTHO
SOUTH AFRICA
Tristan Da Cunha (U.K.)
Gough Island (U.K.)

Botswana

Summary: Lack and cost of Internet access and technology are serious obstacles to developing online options for students, even at the universities.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are not available to students.
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	Urban students
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	There is no need for training since state schools do not have online learning options.
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	Teachers within schools
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online), high costs of online course development, lack of Internet access and technology for students, and lack of policy or policy barriers that limit access to online courses for students.
Who pays for online learning courses?	Students and parents; only available in the private sector.
Funding	
Funding Model	Calculated on the cost per student (food, transport, insurance, etc.)
Do private enterprises partner or participate in government-funded online learning programs?	Yes. They do not partner per se, but some do offer online learning options to students. Some are funded for the courses they take by the government.

What technologies are students using to access online and/or blended courses?	Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Insignificant
Summary	
There are very few Internet providers, prices are unaffordable, and desktop computers are considered a luxury item.	

Burkina Faso

Summary: Currently the infrastructure needed to support online learning for public schools does not exist.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	Our country has resisted the use of online learning in public education because of economic and political reasons. The economic reason is that our country is very poor and is unable to provide infrastructures (energy, computers, and Internet) for public schools and human resources (teachers are not trained in the use of the Internet). The political reason is that the government misconceives the Internet as an education tool and fears that people can use it to express their opposition to them.
Who pays for online learning courses?	N/A

Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary
The online learning programs are available in the private sector: 1. Ecole en Direct (EDE) provides courses of primary and secondary school curriculum and live teachers' assistance. The website is : http://www.ecolendirect.com/ or http://www.ecolendirect.com/predir.php 2. TIC-Edu Burkina provides resources for students and online teachers' assistance. They also provide tests online for students. The website is http://www.edu-burkina.org/ In order to promote online learning, decision makers have to adopt economic reforms that encourage investment in infrastructures (making energy available, access to computers and the Internet). Government can also encourage private initiatives in online education.

Egypt

Summary: Egypt provides online learning options to some students, typically those attending larger schools. The use of online learning options in Egypt are also available to students with special needs and to students who travel, as well as students taking college-level or advanced courses.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	Very few
Geographic location of students	Students attending large schools
Rational for the use of online learning	To provide more course options for students with special needs as well as for those students taking advanced or college-preparatory courses or college-level courses for college credit. Also to provide options for students who travel, such as athletes, actors, etc.
Teacher Training	
Are there special training requirements for teachers to teach online?	No

Who trains teachers in the use of online learning resources for students?	Current and new teachers are trained to teach online by regional centers.
Does the government have licensing requirements or require a special credential to teach online?	Yes
Online Content and Courses	
Who develops online content and courses?	Private companies and universities or institutions of higher education
Are there quality standards for online teaching and/or online courses?	Yes
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students, lack of funding for professional development and teacher training (results in shortages of qualified instructors trained to teach online), and high costs of online course development.
Who pays for online learning courses?	National government
Funding	
Funding Model	School's funding is based only on how long students are in a physical classroom setting.
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	Laptop and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
No other comments provided	

Mozambique

Summary: With only 1% of the Mozambican people having access to the Internet and only 12% having electricity coverage, online learning is scarce in the country. Additionally, the respondent explained that the local government officials do not know about the advantages of online education.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A

Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

The country has more than 50% illiteracy mostly representing rural areas. Every year, many children interrupt their education because there is no school near enough to provide the next degree. Each year, the Ministry of Education reports lack of funds for expanding education services to remote people. The country has great challenges, and online learning can leverage these problems. It would allow qualified teachers to reach students across the country. It would reduce costs in education for the families in remote areas in terms of transportation, accommodations, and other needs for their children. It would increase access to education for people in remote areas, reducing the illiteracy index. And it would encourage the country to use electricity generators that are powered by fuel, providing greater potential for access to the Internet.

Nigeria

Summary: The focus is to get students access to technology in any way possible to build their digital literacy.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
With increasing technological awareness, youths are being encouraged to visit Internet cafés, interact with their peers across social networking sites, and gain the exposure to technology advancement. This is dependent on government funding, which has been supported by private funds since January 2010. Also, with consistent policy reviews and performance analysis, there is hope for improvement in the e-learning experience in line with the UN-Millennium Development Goals objectives, part of which education is a core area.	

South Africa

Summary: Online learning at the public school level is very much in its infancy.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

Online learning at the public school level is very much in its infancy. The white paper on e-Education (2004) speaks to this possibility. Whilst the time span between 2004 and 2011 appears relatively big, the practicalities of synergizing the four key elements — i.e., curriculum, learners, teachers, and technology — is challenging given the vastness of the South African landscape and, the digital divide that exists. When viewed through a different lens, education is institutionalized as a face-to-face practice, and technology adoption is slow. Some of the reasons for this are the aging teacher population; the lack of advocacy and push for ICT to be integral in education; the skewed bias toward possessing new technology as an entity as opposed to gleaning its benefits for learning; and the different approaches to the management of ICT in schools. None of these are unique to South Africa, as many countries have walked this road during their inception years. However, a possible main reason could be the state and provincial education department's lack of capacity to operationalize the strategic objectives of the e-Education policy white paper.

A small selection of known providers of online courses/training are:

- Larah Skills (mainly management training)
- Palama (government department — training uses Moodle)
- e-Tutor (works with learners — math uses Moodle)
- SSIR — online Moodle school
- Stellenbosch University uses it with Telematics and in its courses
- Rhodes University and UKZN uses Moodle
- WCED uses Moodle for integrated ICT training (first ever government department in South Africa to do this)
- a range of private schools are using Moodle as an LMS (there is a possibility that they will be providing a blended face-to-face/online offering)

The possibility of online learning may not be as a major mode in school education. A blended face-to-face/online approach would be a responsible, safe, and practical option to e-learning. For e-learning to take root whatever the approach, there needs to be an identified need, and at this point, education does not appear to be asking the "appropriate" questions, i.e., what can technology offer for any of the identified needs in education. If the approach is from the need of learning, then the starting block would be to pedagogical aptness of the interaction among learners, teachers, and content (much like the aspects of "activity theory"), then technology could be matched to support or even enable this. The possibilities that e-learning has to offer can, from a management of education perspective, prove useful. Given the number of public holidays, the low number of effective schooling days in a year, the vastness of the curriculum, the disruptions to teaching and learning time due to strikes and learner absenteeism, e-learning has the potential to fill gaps that appear in the teaching and learning by support through digital means. Courses, repositories, communication, and collaboration could be enabled at a distance, and also in the absence of teachers. It can transcend time and space. There appears to be an exponential increase of technology in schools; access to digital resources via the Internet, OERs, and digital repositories are on the increase. However, there appears to be no coherent means to bring the key elements of e-learning together. At this point the Western Cape Education Department (WCED) plans and is currently in the process of deploying an e-learning platform. The platform consists of a CMS (Joomla) and an LMS (Moodle). The architecture is to have each educational district (7) maintain its own Moodle LMS for the district cluster of schools; each school to have a Moodle installation on its local server; and the head office to have a separate Moodle LMS. The districts are to be interconnected through a WAN. There will be relational connections between the head office LMS and the district LMSs. The LMS is to be used for e-administration (in this context by officials and teachers) for online meetings, discussions, sharing, etc. The LMS can be used for online conferences. There will be a repository of digital content in the form of learning objects and learning and teaching resources. Collaboration facilities, such as wiki functionalities, forums, chat rooms, etc., will be available for such activities as discussions, sharing, submitting, joint knowledge construction, etc. As noted above, the WCED has used the Moodle LMS for its blended face-to-face/online ICT integrated training in WebQuest and Intel Teach Essentials with great success. It has shown that this is cost effective and doable in the face of the naysayer to such an approach to training within a government department. The WCED plan is to extend on this, work on the development of digital content, and use the LMS to extend its reach to enable teaching and learning.

Sudan

Summary: Sudan is a country limited in its use of technological advantages, particularly computers. The population is computer illiterate, which contributes greatly to not using online learning in public education. Currently, online learning is starting at the post-secondary level.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

Open University, in Khartoum, working with the British Council is one of the private institutions that takes advantage of online learning programs in Sudan. <http://www.ous.edu.sd/en/>

Open University's approach to providing online learning opportunities in Sudan is one of the most promising attempts in Khartoum. Unfortunately, the Ministry of Higher Education has neglected to expand such programs into the public sector.

ASIA AND THE MIDDLE EAST

China

Summary: China is increasingly using online learning tools to supplement traditional pedagogical methods. Since the first online school was created in 1996 (with the permission of the Ministry of Education), there are now more than 200 such schools with a total student enrollment of over 600,000. More than 120,000 online students live in Beijing alone, with one such school, the Beijing No. 4 Middle School, having more than 80,000 online students.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	The most recent estimate (from 2007) puts the total number of online students at 12.7 million out of a total of about 41.1 million K–12 students (roughly 26% of the total student body).
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rationale for the use of online learning	To provide more course options for rural students, to provide courses not available at students' assigned schools, for medically homebound students, for students with special needs, and for students to take advantage of college-preparatory courses.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Local schools, regional centers, and universities and colleges, and for-profit companies
Does the government have licensing requirements or require a special credential to teach online?	Yes
Online Content and Courses	
Who develops online content and courses?	Private companies, national government, local government, universities and institutions of higher education, and open education resources are available.
Are there quality standards for online teaching and/or online courses?	Yes for online teaching (see "Quality Standards in Online Distance Education" in International Journal of Continuing Education and Lifelong Learning Vol. 3 (1) 2010) No for online content and courses

What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students, lack of funding for professional development and teacher training (resulting in a shortage of qualified instructors trained to teach online), and lack of Internet access and technology for students.
Who pays for online learning courses?	National and local governments and students. In the beginning of the Chinese government's efforts to expand distance education (including online education), the primary costs were borne by the Central government. However, beginning in 2000, cost sharing occurred and more responsibility for online education was passed to provincial and local governments. The Central government still plays a large role in online education in rural areas. As incomes have risen, however, an increasing number of private households are paying for additional education resources, many of which are online (as many as 600,000 students attend fee-based online schools). Statistics show that educational costs make up the largest piece of household expenses in many poorer households.
Funding	
Funding Model	School funding at the local level in China's rural areas (which comprises the bulk of China's population) follows no strict formula. Most local governments pay for the teacher salaries, while operating costs are borne directly by the village inhabitants.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. There are several private companies that currently offer teaching materials and teacher training for online learning with the express permission of the Chinese Ministry of Education. The largest is China Education Resources, which provides a large-scale teacher training program, including the use of online tools.
What technologies are students using to access online and/or blended courses?	Mobile phones, laptops, and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Information about the growth of online K–12 education is spotty, and the most accurate data concerns online universities. One recent report, by companiesandmarkets.com, stated "the sector has reached its 'growth stage,' increasing in market scale by 20.7% between 2006 and 2007 (from RMB 14.5 billion to RMB 17.5 billion)."
Summary	
The Ministry of Education, in its 2000 "Guiding Opinions about Accelerating the Construction of Information Technology Course in Primary and Middle Schools," outlines its goal of connecting 90% of independently established primary and middle schools to the Internet within 10 years for the purpose of increasing the availability of online education. That being said, the main emphasis is on Web penetration and most of the government's time and investment is spent on connecting schools and individuals in rural areas.	

Gaza Strip/Palestine

Summary: The telecommunication and ICT infrastructure is not very developed to tolerate the capacity for huge numbers of users. One reason for the absence of online learning is the high cost of establishing such systems, especially in a country of conflict like Palestine where the priorities of international aid go to human needs like food and shelter. International aid in the last 10 years has targeted the immediate needs and suffering of the people and has neglected the need for developing the ICT infrastructure.

Online learning could be a promising system in Palestine in the coming years since there is no geographical continuity between the Gaza Strip and the West Bank (both are called Palestinian territories). Such a system could solve many problems of communication and could enable students from different governorates to utilize and communicate knowledge more effectively and efficiently. Equally important is the willingness of people to adopt new technological ideas, especially when most of the homes have at least one computer.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rational for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A

Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
No other comments provided	

Georgia

Summary: Georgia currently offers no options for online or blended learning for its students. Students can access international online learning programs.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	Online learning options are available to no students.
Availability of blended learning options to students	Blended learning options are available to no students.
Student Information	
How many students participate in online learning?	There is no local full-time online program; international online learning is the only available option. Some exam-only systems do exist in some schools.
Geographic location of students	Rural students
Rational for the use of online learning	Online learning provides additional benefits. In Georgia, there is no online study system; however, international online learning is available for all students. It can be used as additional benefit for Georgian students, also it is possible to have only international online courses.
Teacher Training	
Are there special training requirements for teachers to teach online?	In some universities, for example Tbilisi State University, "Illia University," there is a system of online examination. In 2006–2010 there were courses for the teachers for using this system. Now these courses have stopped, though experts say it will be renewed in 2011.
Who trains teachers in the use of online learning resources for students?	Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	Universities or institutions of higher education and open education resources are available.
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online). The main problem is that there is no practice of online education. In some universities, there are online examination programs to test the students. These programs are used for creating more trust between students and teachers. Also, there is no trust and demand by individuals to educate online, because there is less information about the system.
Who pays for online learning courses?	Students/parents
Funding	
Funding Model	No
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	Netbook and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	It is difficult to say what the growth of online learning is. Individuals use only an international online learning system. According to statistics, the number of students using an international online learning program is three times more than in the year 2000.
Summary	
There is a big demand for education in the country of Georgia; 80% of young people are applying to high schools that unfortunately do not have online learning options. In every region, there are state and private universities which give students the opportunity to study not far from their native land. Internet connection is not well developed in the province of Georgia; that is one of the reasons for less popularity of online learning.	

Indonesia

Summary: In Indonesia, there are three different kinds of programs available: the Open Education Resources, the WAN Kota (Wide Area Network in Cities), and the Open General High Schools/Senior Secondary Schools. Online learning options are available to some students, though there is no data available to indicate how many students learn using online methods.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning programs are available to some students.
Availability of blended learning options to students	Blended learning options area available to some students.
Student Information	
How many students participate in online learning?	There is no comprehensive data on the use of the Internet in Indonesian education available.
Geographic location of students	Suburban, urban, and students attending large schools
Rationale for the use of online learning	Online learning provides courses not available at students' assigned schools, and provides options for students to take advanced or college-preparatory courses and independent study at their own time and pace. Online learning provides easy access to library resources, computer and Internet literacy skills, and opportunities to engage in discussions with both educators and peers.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Local schools, regional centers, universities and colleges, and national centers
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	National and local government, teachers within schools, and open education resources are available.
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students, lack of funding for professional development, high costs of online course development, lack of Internet access and technology for students, low computer literacy among students, curriculum development, and corruption.

Who pays for online learning courses?	National and local government and students and parents
Funding	
Funding Model	No data related to the funding model is available.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. The Directorate General of Primary and Secondary Education has collaborated with the Indonesian Internet Providers Association.
What technologies are students using to access online and/or blended courses?	Netbooks, laptops, and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	There is no comprehensive data to report.
Summary	
No other comments provided	

Israel

Summary: Online learning is used as a supplement to face-to-face studies; students review materials online in order to better understand the content.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	Approximately 70% of students
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rationale for the use of online learning	Online learning provides support for the regular studies at the physical schools so students can read and review material to clarify points.
Teacher Training	
Are there special training requirements for teachers to teach online?	Yes
Who trains teachers in the use of online learning resources for students?	Ministry of Education Universities
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	Private companies Universities or institutions of higher education Teachers within schools
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Identifying the student is the main obstacle. One does not know who is in the course, or whether the exam-taker is the same person. Also, Israel is relatively small and crowded, and this reduces the need for distance learning. Online programs are supports for regular studies, or to have in times of emergency.
Who pays for online learning courses?	Local government
Funding	
Funding Model	The country calculates a school's funding based only on how long students are in a physical classroom setting, otherwise known as "seat-time."
Do private enterprises partner or participate in government-funded online learning programs?	Mostly, the government outsources website design to private companies.
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Very high
Summary	
The programs available include school websites, learning management systems (some developed in Israel and some Open Source like Moodle). Israel makes wide use of synchronized and non-synchronized educational systems based on Microsoft SharePoint and locally developed systems based on .net. Most areas of the country are served. Only a few places do not have online education.	

Malaysia

Summary: With a buy-in from the government, online learning in the K–12 sector might grow, first in the private venues and then maybe spread to the public schools.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.

Student Information	
How many students participate in online learning?	Not available
Geographic location of students	Rural and urban students
Rationale for the use of online learning	To provide more course options for rural students and as supplementary elements of courses in urban universities.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies Universities or institutions of higher education
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of Internet access and technology for students
Who pays for online learning courses?	Students/parents, as online courses predominantly feature in private universities, the majority of online courses exist for students (or parents) who pay for their own education.
Funding	
Funding Model	Any guidelines that do exist are ignored. The ethnic aspect and the politicization of the education system means that school funding is heavily dependent on political circumstances rather than specific criteria.
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Not available
Summary	
The respondent reports a lack of interest in online learning. Some universities partner with other universities using Skype. Attaining a buy-in from the government might be difficult, so the respondent suggested that the country start with private schools first and then work on the public. The respondent was mainly focusing on university progress.	

Philippines

Summary: There are challenges that are limiting the growth of K–12 online learning in the Philippines. Power and electricity rates are among the highest in Asia.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

There are challenges that are limiting the growth of K–12 online learning in the Philippines. According to the respondent, there is a lack of infrastructure. Power and electricity costs are among the highest in Asia, and a number of provinces, especially in the southern parts of the country, experience unstable power supply, with occasional power outages even for basic power needs like the usual household and office needs. Internet costs, although declining, are still high for the average poor households. Also, there is the usual governance problem: regular or endless corruption charges and suspicions in government education (and many other public services), from school constructions to hiring of teachers and upper-education bureaucracies. Many public school teachers are themselves illiterate in online learning, and some of those who have been teaching for 20 years or more may not have even touched a computer all their lives. The Department of Education (DepEd) has accredited international and national homeschool and distance learning programs from elementary to high school that provide Online Distance Learning (ODL). These are private institutions that utilize the Internet to provide individualized education. Among the private homeschools are Angelicum College, http://www.angelicum.edu.ph/root/home_study_program.html; Asia World Homeschool, Inc., http://www.awhsinc.com/home.php?cmd=resetall; Catholic Filipino Academy (CFA), http://catholicfilipinoacademy.com/; Colegio de San Juan de Letran, http://www.letran.edu/elementary/elem_homestudy.php; Homeschool of Asia Pacific (HAP), http://homeschoolofasiapacific.com/; School of Tomorrow Philippines (SOTP), http://www.sotphil.net/; and Victory Elijah School System (VESS), http://www.vessonlineschool.com/. Right now, online learning in public education is concentrated on the tertiary level, like the University of the Philippines Open University (UPOU, http://www.upou.edu.ph/). For public elementary and secondary education, even in the top schools like the Philippine Science High School (PSHS, http://www.pshs.edu.ph/) and other local governments' science high schools, or public schools by the most affluent cities in the country like Makati City, online learning is not being done. A student who is sick for many days is advised to stay home and rest, and submit whatever missing requirements and take make-up exams upon his/her return to school. There is the Philippines' "Education For All (EFA) 2015" program for public elementary and secondary education, which is allied with the Millennium Development Goals (MDGs), but the 54-page paper is also silent on online education.

Singapore

Summary: An enthusiastic supporter of online learning as a complement to classroom learning, Singapore concentrates on preparing students with life-skills that a student must cultivate to become successful in today's economy.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	Courses are not offered in a purely online format. Most classroom-based courses have online components. Almost all schools have computer labs, and most Singapore students use online resources such as search engines and Wikipedia extensively.
Geographic location of students	Urban students

Rationale for the use of online learning	Online learning is seen as a tool to complement classroom learning by getting students to explore online content and participate in online activities. This is the preferred education scenario in Singapore. Teachers use online tools to support classroom learning. Geography students may use Google Earth to help them visualize scenarios better. Students may use Google documents to collaborate on their homework.
Teacher Training	
Are there special training requirements for teachers to teach online?	Yes. These teachers may attend short courses on facilitating online sessions. Most schools have an IT department that runs these sessions, or they may attend specialized sessions run by the Ministry of Education or the National Institute of Education. These courses usually cover the use of technology (Learning Management Systems, Google Suites, Presentation tools, etc.), online facilitation strategies, and rubrics for grading online activities.
Who trains teachers in the use of online learning resources for students?	Local schools Universities and colleges Specialized courses and events run by the MOE and educators' interest groups
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies National government Universities or institutions of higher education Teachers within schools Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing) Students themselves are being encouraged to create content. This content may be in the form of online presentations, videos, and mobile apps.
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – No Standards for quality online courses – No There are no standards due to the variety of experiments and implementations. The schools and the individual teachers enjoy a good degree of independence when it comes to courseware development.

What are the primary obstacles to the growth of online learning in your country?	Singapore is probably one of the most enthusiastic supporters of online learning as a complement to classroom learning. Pure online learning is not a priority since the city is small and well connected. Moreover, the online activities are also seen as life-skills that a student must cultivate to become successful in today's economy.
Who pays for online learning courses?	National government Ministry of Education

Funding

Funding Model	No information is available on the exact breakdown of funding. There is a wide range of funding available to schools from basic funding for day-to-day operations to fund special programs that schools may engage in.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. Private enterprises participate as 1) infrastructure providers as vendors or partners and 2) training providers for the students and teachers.
What technologies are students using to access online and/or blended courses?	Smartphones iPads Tablet computers Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Data not available

Summary

There is ample official support and encouragement to embrace the use of Web resources in learning. Technologies and specifically online technologies are playing a key role in supplementing classrooms in Singapore. The following are some of the private sector e-learning vendors that provide online learning content and systems for the primary and secondary school students in Singapore:

- Ace Learning Systems (provided online supplementary materials for Math) http://www.ace-learning.org/
- EduPop (Math, science, and language online tutorials and question banks) http://www.edupop.com.sg/ III.
- AsknLearn (Learning management system and online content) http://www.asknlearn.com/

In Singapore, online learning forms an important component of education and is not seen in isolation. Singapore is a compact city state which is well connected, and the level of IT literacy is high. Most schools have computer labs and an increasing number of schools are engaging in a one-computer-to-one-student model. Blended learning approach is the preferred direction. Other trends that we see are:

1. Student-created content
2. Increase in collaborative tools - Google documents, online mind-mapping, etc.
3. Increased usage of OERs with students learning about online research skills
4. Cross-border online collaboration

The Ministry of Education directly and indirectly funds development of online courseware and content repositories.

Note: Most online programs in Singapore are technically blended. We have provided a background to this in the report; the questions are answered from this context. The MOE 's Baseline ICT standards provides a scaffold that schools use to plan and implement their IT infrastructure and training programs. Schools are designing their online and blended learning programs based on this master plan. The master plan has four stages that cover primary, secondary, and pre-university years. In each stage, the student explores the subjects via online tools. The aim is for the student to be competent in research, analysis, and publication of information using various media tools. http://www.moe.gov.sg/media/press/2008/08/moe-launches-third-masterplan.php

Thailand

Summary: When online education was initiated in Thailand, it was developed from the programs that were already broadcasted on television since most households in Thailand have access to television. The lack of access to the Internet in many areas in Thailand, especially in rural areas, is the main obstacle for online education. While the content and courses are now available, the Internet devices at schools still need to be expanded and developed.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	The exact number of students participating in online learning is not available. However, the estimated number of students age 6–19 using the Internet for study and knowledge is about 8,134,088 (source: The 2008 Information and Communications Technology Survey (Household), National Statistical Office, Ministry of Information and Communications Technology).
Geographic location of students	Rural students and those attending small schools
Rationale for the use of online learning	Provides courses not available at students' assigned schools (such as specialized courses, courses unavailable due to a teacher shortage, etc.) Provides options for students that must work to support their family Provides options for students who travel (such as athletes, actors, etc.) Provides options for students to take advanced or college-preparatory courses
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Local schools Universities and colleges (1) The TOT Public Information Center (2) The Embassy of the United States in Thailand
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	National government Universities or institutions of higher education Teachers within schools
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – No Standards for quality online courses – Yes For formal education, it has to comply with the primary education standard of the Ministry of Education.
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) High costs of online course development Lack of Internet access and technology for students
Who pays for online learning courses?	National government Students/parents Online learning is free of charge. It is one of the government policies aimed at improving the quality of education in Thailand. In some courses, for example professional training, students/parents may have to pay partial tuition, but for primary education it is always free of charge.
Funding	
Funding Model	The school's funding is calculated based on capital cost (such as building, facilities) and recurrent cost (such as personnel, materials, utility, and other resources). In the case that the school collected partial tuition from students, the total tuition fee would be deducted from the overall cost before calculating the funding that the school would receive.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. Most private companies involved in online learning programs are telecommunication companies, which assist the government in technical aspects, including development of the Internet network and devices. Also, some online learning programs are broadcasted on cable television, which is run by a private company.
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	The data is only available for the years 2005–2008. There is no significant change in the number of people using the Internet for study and knowledge during that period, which is around eight million people.

Summary

The relevant agencies in Thailand are now implementing the plan to equip the target schools with all necessary Internet devices.

(1) Distance Learning Television Station (DLTV): A learning program broadcasting live on television to the secondary schools nationwide or through a website (http://www.dlf.ac.th/) with free-of-charge Web-based information content. The program operates as a formal education in schools that do not have enough teachers in some particular subjects and also as an informal education to educate people with knowledge and skills to improve their quality of living.

(2) Distance Education Institute: A self-learning program where the content of the courses is provided online; for example, learning kit, supplementary documents, VCD, and through the Internet. The programs are divided into two categories: informal education, which is conducted in accordance with the syllabus provided by the Ministry of Education for primary education; and continuous education, which provides short courses on the skills and knowledge necessary for professions, a better quality of life, and developing societies.

Educational Development through E-Learning Plan (2009–2012):

- Phase I (2008): Mockup of interactive e-learning to find an appropriate approach for implementing the plan.
- Phase II (2009): The Ministry of Education transferred its budget to 3,964 target schools for procurement of necessary devices for e-learning. It also arranged the briefing on distance learning, which was chaired by the Minister of Education. The contents of e-learning for secondary education were developed in three subjects: science, mathematics, and English, for 540 periods/hour, were developed.
- Phase III (2010): The Ministry of Education transferred its budget to 5,100 target schools. The contents of the e-learning for secondary education were developed in three subjects: science, mathematics, and English, for 540 periods/hour.
- Phase IV (2011): The Ministry of Education transferred its budget to 10,000 target schools. The contents of the e-learning for elementary education were developed in three subjects: science, mathematics, and English, for 2,160 periods/hour.
- Phase V (2012): The Ministry of Education will transfer its budget to 10,000 target schools. The contents of e-learning for high school education were developed in three subjects: science, mathematics, and English, for 2,160 periods/hour.

Website: http://www.elearning.moe.go.th

Turkey

Summary: There is no apparent resistance to online learning for K–12 students. There needs to be a systematic and extensive implementation plan.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	There are 389,948 students in Open Primary School; 421,646 students in Open Secondary School; and 179,392 students in Open Vocational Technical Secondary School with a total of 990,986 students as of the 2009–2010 academic year. Although all materials are online, the exact number of students using the online resources is not available since they are open to anyone at anytime.
Geographic location of students	Urban students and those attending large schools
Rationale for the use of online learning	Provides credit recovery (for students that fail a course the first time and must take the course again) Provides options for students that must work to support their family Provides options for students to take college-level courses for college credit Provides options to earn vocational certificates
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Regional centers Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	Private companies National government Universities or institutions of higher education Teachers within schools Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – No Standards for quality online courses – Yes There are standards for online content. (No link available)
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) Lack of a long-term evaluation scheme for the projects Lack of teacher competence in using online environment Lack of quality pre-service and in-service trainings
Who pays for online learning courses?	National government
Funding	
Funding Model	The public primary and secondary schools are free of charge for all citizens. All investments are funded by the government.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. They they develop online documents and interactive systems and donate to schools. For using these systems, every student and teacher is given a unique password to use the e-content appropriate to their levels. For example, a third grade teacher is given a password to use the e-content developed for third graders and so are the students. Examples include Morpa Kampus (http://www.morpakampus.com), Okulistik (http://www.okulistik.com), Vitamin (http://www.ttnetvitamin.com.tr), and DigiProtein (http://www.digiprotein.com).
What technologies are students using to access online and/or blended courses?	Netbook computers Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	No answer

Summary

Some school administrators and teachers are regarded to be resistant to change in their traditional face-to-face approaches, but related initiatives can work.

Doga College: a private school (http://www.dogacollege.com/)

Fono: a distance learning institution for language learning (http://www.fono.com.tr/)

Turkish Education Association Schools: a non-governmental organization in the field of education (Information and Technology Unit of Ankara): http://www.tedankara.k12.tr/english2/index1.asp?ID=internet) Ugur dershaneleri: a private tutoring institution (http://www3.ugur.tv/tanitim)

Although Turkey has a remarkable history in distance education programs and institutions in the higher-education level, not much can be found for practices in the lower levels, including primary and secondary education. Hence, it can be asserted that the extensive previous experience of higher-education institutions with distance education via print and broadcasting technologies can allow a smooth transition to e-learning with the use of the Internet technologies. In the case of primary and secondary levels for which distance education is a concept with unknowns, e-learning can be regarded to be at its infancy. Research is needed for e-learning issues and practices for K–12 levels. The new project, FATiH, and the subprojects within this project have promises for online learning in primary and secondary schools. Yet, the future of the project remains unknown considering the existing conditions (e.g., inadequate competence level of teachers, inadequate regulations and legislations).

Open primary and secondary school programs are distance learning programs and offer e-learning facilities for their students. The aim of open primary schools is to offer distance learning opportunities to complete primary education for individuals who did not have the chance to complete their primary education. Open secondary schools aim to provide individuals who hold five-year primary education certificates but have not had the chance to continue in secondary education with opportunities to complete their eight-year primary education via advanced information and communications technologies. The basic technologies to be used in the program were identified as television and radio programs, print books, CDs, and e-learning facilities. The e-learning facilities are rapidly growing with internet-tv or online radio broadcasts that present instructional programs on courses. There are also free online content (i.e., e-books, online tests, etc.). The online environment for the blended courses in public schools are usually used as a support to face-to-face courses. Teachers mostly use the online environment during their class times and assign online tasks for students. The new FATiH project is large in scope and anticipates an extensive restructuring and construction for ICT and e-learning use. It is a three-year project that aims to integrate the ministry's current ICT integration efforts and establish new ones. In the first year, secondary schools will be integrated; in the second year, the primary school 6–8 levels; and in the last year, K–6 levels are to be included in the project. There are five major components of the project:

1. equipping schools with necessary infrastructure (i.e., hardware and software);
2. developing and managing e-content;
3. maintaining effective use of ICT in classes;
4. offering in-service training for teachers; and
5. maintaining a secure, viable, manageable, and measurable ICT integration process. The Ministry of Transport and Communications supports the project financially.

The website is in Turkish (http://fatihprojesi.meb.gov.tr/site/).

EBA is an extensive Web project for educational purposes within the framework of the FATiH project. It aims to systematically enhance and disseminate the ICT use in education via dynamic Web tools and emerging technologies and envisions covering a wide variety of resources. The main tools planned in this project include a viable search engine, electronic encyclopedia, e-courses, e-books, web-tv, web-radio, a sharing platform, educational news, and scientific and research projects, school informatics system, question & answer page, and a game platform. The authorities respect this project for enabling opportunities with an open, sharing, and flexible e-learning platform. The demo video is available at http://eba.meb.gov.tr/video/index.html (in Turkish).

Uzbekistan

Summary: National Education Network ZiyoNET has become an indispensable assistant for participants in the educational process. This information resource helps teachers prepare materials for classes, and students in their research. Experts note that these information sources significantly expand the outlook of participants of educational process, provide them with prompt and reliable information.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online options are available to some students.
Availability of blended learning options to students	No answer
Student Information	
How many students participate in online learning?	No answer
Geographic location of students	Urban students
Rationale for the use of online learning	Provides options for students to take advanced or college-preparatory courses Provides more course options for gifted students Provides options for students with special needs Provides more course options for rural students
Teacher Training	
Are there special training requirements for teachers to teach online?	No answer
Who trains teachers in the use of online learning resources for students?	Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No answer
Online Content and Courses	
Who develops online content and courses?	Universities or institutes of higher education
Are there quality standards for online teaching and/or online courses?	No answer
What are the primary obstacles to the growth of online learning in your country?	No answer
Who pays for online learning courses?	No answer
Funding	
Funding Model	No answer
Do private enterprises partner or participate in government-funded online learning programs?	No answer
What technologies are students using to access online and/or blended courses?	Desktop computers

What is the rate of growth for online learning in your country over the past 10 years?	No answer

Summary

In the first half of 2010, specialists promised to complete the connection of all the remaining schools, academic lyceums, and professional colleges to this global network. Teachers and students are not only end users of ZiyoNET but also active content writers. ZiyoNET portal provides the possibility of free creation of Internet sites and their placement on the network. Teachers create websites on their subjects that subsequently serve as additional sources of information for students. Moreover, the country established its first domestic educational portals, which have become irreplaceable assistants to pupils, students, and their teachers. One of those is the educational portal of the Ministry of Public Education, www.eduportal.uz, run by the Republican Center for Development of Multimedia Educational Programs. In particular, the educational environment of the portal is becoming a place on the Internet where everyone can find any material from the school curriculum. The portal also carries out projects that bring various innovations into schools. Among such projects is Electron Maktab, which is under beta-testing. It is used for easier communication between students, parents, teachers, and school administration. The student, for example, can find out the schedule of lessons, marks and homework, and parents can keep track of their child's performance. The main purpose of the portal is to distribute multimedia applications developed by the multimedia general-educational programs development and other organizations within the system of public education. The uniform informational education environment of the MOPE RUz should perform the following: supply training aids for pupils, including remote education; provide access to teaching materials to pupils; provide regulated access to informational resources; and integrate with corporative websites of other Ministries and departments.

EUROPE


Svalbard (NORWAY)
Jan Mayen (NORWAY)
ICELAND
Faroe Islands (DENMARK)
Rockall (U.K.)
SWEDEN
FINLAND
NORWAY
ESTONIA
LATVIA
LITHUANIA
RUSSIA
DENMARK
IRELAND
UNITED KINGDOM
NETHERLAND
GERMANY
POLAND
BELARUS
BELGIUM
LUXEMBOURG
CZECHOSLOVAKIA
SLOVAKIA
UKRAINE
MOLDOVA
FRANCE
SWITZERLAND
AUSTRIA
HUNGARY
SLOVENIA
CROATIA
ROMANIA
BOSNIA & HERZEGOVINA
SERBIA
SAN MARINO
ITALY
MONTE NEGRO
KOSOVO
BULGARIA
ANDORRA
Corsica (FRANCE)
MACEDONIA
VATICAN CITY
ALBANIA
PORTUGAL
Balearic Islands (SPAIN)
Sardinia (ITALY)
GREECE
SPAIN
Sicily (ITALY)
MALTA
Crete
CYPRUS
Madeira Islands (PORTUGAL)
Canary Islands (SPAIN)

Albania

Summary: The government financed a program called "Albania in the Age of the Internet" that provided Internet connection to all the primary and secondary schools in the country. The government has created a new ministry called the Ministry of Innovation and Technology to plan for technology needs.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	2% to 3%
Geographic location of students	Urban students, including students attending large schools
Rational for the use of online learning	To provide more course options for gifted students To provide options for students to take advanced or college-preparatory courses and to provide options for students to take college-level courses for college credit
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Universities and colleges.
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies, universities and institutions of higher education, and teachers within schools
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) and lack of Internet access and technology for students Lack of know-how is also a barrier
Who pays for online learning courses?	Students and parents
Funding	
Funding Model	Per pupil despite attendance

Do private enterprises partner or participate in government-funded online learning programs?	Yes. Mostly telecommunications businesses are very interested in financing wireless access to remote areas for a small fee
What technologies are students using to access online and/or blended courses?	Desktop and laptop computers
What is the rate of growth for online learning in your country over the past 10 years?	20%
Summary	
No other comments provided	

Belgium

Summary: Currently, online programs are used primarily for children with long-term or chronic illnesses that make daily participation in traditional school difficult.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	Very few students participate. Currently only students with chronic or long-term illnesses use the online program that is available.
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rationale for the use of online learning	To provide an option for students that are medically homebound or with special needs and for students with scheduling conflicts
Teacher Training	
Are there special training requirements for teachers to teach online?	There are no unique requirements for teaching online; however, some colleges offer an optional module on e-learning.
Who trains teachers in the use of online learning resources for students?	Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies, universities or institutions of higher education, and teachers within schools

Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) and high costs of online course development
Who pays for online learning courses?	National and local (state and territory) governments Foundations frequently support organizations that develop educational tools.
Funding	
Funding Model	School funding depends on student enrollment status on February 1 of each year.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. Most development comes from private companies that are hired by the government. They have the know-how that government lacks. Private companies maintain and run the systems.
What technologies are students using to access online and/or blended courses?	iPod, smartphone, laptop, mobile phone, and desktop computer
What is the rate of growth for online learning in your country over the past 10 years?	Growth potential is great because there is very little currently available. Potential lies in development of online courses, as well as in training teachers in implementation.
Summary	
There isn't a resistance to online learning; it just has not been thought about extensively.	

Bulgaria

Summary: The current focus of policies is for in-class computer use and not computer use at a distance.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A

Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	The use of online learning in public education in Bulgaria is highly underdeveloped. There are some materials online (some public funding was involved), but it plays a role of something additional to the classical education (physical presence in a class room). See here: http://start.e-edu.bg/?sesskey=undefined and here: http://www1.znam.bg/zmonres/edu/. There are policies that aim to improve technologies in schools, such as buying computers and some programs for teachers (computers skills, etc.). Still, the idea for now is to use computers in class and not from distance. The main reason for resistance is that the idea is relatively new for Bulgaria — the programs are new and not tested in practice, the teachers are not ready, and most of the students are also not entirely ready for this kind of education. The system is conservative and slowly changing — the focus is on long delayed changes (reforms) at a more general level (organization, general funding, etc.).
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
There were some pilot projects of online learning, but the effect was not significant and the focus is on other issues. At present, it seems that the use of technology will first advance inside the schools — the physical presence will be still needed. Using computers in class is the most promising at the moment. Some form of online learning may develop in the next 4–5 years.	

Czech Republic

Summary: Public schools, both primary and secondary, can use blended learning programs; however, face-to-face education dominates. If a teacher instructs students online, it is only his or her own personal decision and a matter of agreement with the school headmaster. There is not a unified concept being provided by the Ministry of Education, Youth and Sports.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes, primarily blended learning programs
Availability of online programs to students	Online learning options are available, however, rarely used. Data is not collected on online-only programs; therefore, it is not possible to determine if there are any programs that do not have a face-to-face component.
Availability of blended learning options to students	Blended learning options are available to some students. Decisions to provide blended learning opportunities are left to teachers and headmasters.
Student Information	
How many students participate in online learning?	No data is available, although approximately 1/3 of schools use online schoolbooks and according to the Czech Statistical Office, 78.3% of teachers use the Internet during class (2006).
Geographic location of students	N/A
Rationale for the use of online learning	To provide more course options for medically homebound students and for students with special needs.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Local schools, universities, and colleges. The Research Institute of Education in Prague and private enterprises offer training, especially those that sell online schoolbooks, interactive whiteboards, etc.
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies, universities or institutions of higher education, teachers within schools, and The Research Institute of Education in Prague develops some learning materials and provides space where teachers can share materials they develop.
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses

Who pays for online learning courses?	Local governments, students, and parents. Schools decide if they want to invest in information technology and online learning methods and materials. They can apply for financial aid from the EU. In some cases, there is a possibility of co-financing (school, parents, sponsors).
Funding	
Funding Model	Funding is calculated per student not seat-time.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. There are private options used by public schools (http://www.vzdelani21.cz). Public schools apply for the program or order it and pay for it with their own resources (schools are funded from local government) and usually find some co-funding source. The national government or the Ministry of Education, Youth and Sports do not influence the content of learning materials.
What technologies are students using to access online and/or blended courses?	Netbook, laptop, desktop computer, and interactive whiteboard
What is the rate of growth for online learning in your country over the past 10 years?	No data available
Summary	
The state provides some loose framework and support for online learning and some educational resources, but no unified system exists.	

Denmark

Summary: Online options are available to students; however, how much time is spent in online courses is regulated and limited.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes. The Ministry of Education has approved that a maximum of 25% of the education in "gymnasiums" (education of three years between elementary/high school and university) is online. It is not possible to go through a whole "gymnasium-education" only with online learning. But blended learning is a big part of the education.
Availability of online programs to students	Online learning options are available to all students.
Availability of blended learning options to students	Blended learning options are available to all students.
Student Information	
How many students participate in online learning?	The exact number is not known; however, most schools do not use the opportunity. Physical presence is preferred.
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools

Rationale for the use of online learning	To provide courses not available at students' assigned schools and for students who travel. Also, when students are taking part of their education in another country, it is often being combined with online learning in non-substitutable courses such as in Danish.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Colleges and additional training is decided by the school leader
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies, teachers within schools, and private publishing companies that supply the schools with teaching materials
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	The demand for online learning is very small; the social part of education is being prioritized.
Who pays for online learning courses?	National government. Whether the school chooses online, blended, or physical learning does not change their economic situation.
Funding	
Funding Model	School receive economic resources per student; the type of education does not play a role.
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	iPad, tablet computer, laptop, mobile phone, smartphone, netbook computer, desktop computer. Everything is an option; it depends on the resources of the school and student. Laptops are used most.
What is the rate of growth for online learning in your country over the past 10 years?	Not known
Summary	
No other comments provided	

Finland

Summary: Online learning is available at the secondary level (16–18 years of age). Younger students can use online learning methods, but there should always be an adult with the student in any student groups. In Finland, the schools and municipalities are creating their own local curricula, based on the core curriculum. Teachers are free to choose their own teaching methods, based on their local curriculum. Online learning is mostly used in cooperation with some small general, upper-secondary-level schools, but there are some other special groups that are using online learning. Online learning is included in the National Plan to develop ICT in education.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to all students.
Availability of blended learning options to students	Blended learning options are available to all students.
Student Information	
How many students participate in online learning?	There are currently no statistics available.
Geographic location of students	Rural students
Rational for the use of online learning	Online learning provides more course options for students, including those in rural areas, those with special needs, and those who are medically homebound.
Teacher Training	
Are there special training requirements for teachers to teach online?	Yes. Teachers have the possibility to have in-service training for many topics, including online learning. These courses are often free for teachers, funded by the government.
Who trains teachers in the use of online learning resources for students?	Teachers are trained by regional centers, universities and colleges, and private companies.
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	It is necessary for the content to follow the curriculum, but the methods used can be decided at the schools.
Are there quality standards for online teaching and/or online courses?	Yes. There are quality standards for all basic education; online education is included, but it has no special role.
What are the primary obstacles to the growth of online learning in your country?	High costs of online course development and the lack of Internet access and technology for students
Who pays for online learning courses?	Local government or the school organizer if the school is private

Funding	
Funding Model	Funding is based on the curriculum.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. Private enterprises might cooperate but not by providing funding typically.
What technologies are students using to access online and/or blended courses?	Mobile phones, laptops, desktop computers, and the use of tablets is growing rapidly.
What is the rate of growth for online learning in your country over the past 10 years?	There are currently no statistics available.
Summary	
More information can be found at http://www.oph.fi/english/publications/2009/national_core_curricula_for_basic_education, which will be updated in the future to cover more e-learning issues. In Finland, teachers are free to choose their methods of teaching, as long as they follow the core curriculum; e-learning is included in this freedom and hence not considered in a special role.	

France

Summary: Online learning is available in rare cases only. It is an option for athletes, executive education, or very motivated students looking for complementary degrees but not as a rural or popular educational option.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes, but it is available in rare cases only.
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to no students.
Student Information	
How many students participate in online learning?	Approximately 6,000 students. They are all attending a French university but not all of them are French or based in France.
Geographic location of students	Urban students
Rational for the use of online learning	Online learning provides students with options when they have scheduling conflicts, those who must work to support their family, and those who travel (such as athletes or actors, etc.) In France, it is now better to have two masters or a specialized master to find a job. Online learning is a way to complete two majors at the same time.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Universities and colleges train teachers.

Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	National government and universities or institutions of higher education
Are there quality standards for online teaching and/or online courses?	Yes. Standards can be found at: http://www.chaned.fr http://www.education.gouv.fr/cid2/presentation-et-missions-de-l'inspection-generale-de-l-education-nationale.htl http://www.aeres-evaluation.fr/
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) and high costs of online course development
Who pays for online learning courses?	National and local government, students, and parents, as well as other companies
Funding	
Funding Model	Schools are funded because of the number of public servants (teachers and other personnel) working in them. The social aid given to some students by redistribution is also a funding element.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. Every year companies are paying a tax for education, which can be given to the state or directly to pay some employee formation (distance or part-time executive education).
What technologies are students using to access online and/or blended courses?	Laptops and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Information is not available, but some articles are saying it is a growing trend.
Summary	
In France, university by classical learning is less expensive than distance learning, and living in a city allows students many social aids. As a result, France has many people attending university only to benefit from public aid, which is not available for distance learning options. The only online learning program provided in the private sector is some specialized courses but not a state-recognized degree.	

Federal Republic of Germany

Summary: Universities provide a much broader scale of online learning opportunities in comparison to primary and secondary schools. There are publicly funded blended learning programs. The Virtual School is an association, which is publicly funded and provides learning materials to students of carnies and children with long-term diseases.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes

Availability of online programs to students	Online programs are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	Urban students
Rationale for the use of online learning	Online learning provides courses for medically homebound students, students who travel, and gifted students.
Teacher Training	
Are there special training requirements for teachers to teach online?	There are no requirements. There are voluntary Web-based programs like Teachers Online (http://www.lehrer-online.de/) that are dedicated to improve teachers' qualification to use online-based learning concepts (mostly e-learning or blended learning). There is limited training for teachers to improve their new media skills, which partially also includes online teaching. The state Ministries of Education or local initiatives provide these trainings.
Who trains teachers in the use of online learning resources for students?	Initiatives that are usually set up by students of communication or IT companies
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies, local government, teachers within schools, and open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing).
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students and a lack of funding for professional development and teachers training (resulting in shortages of qualified instructors trained to teach online). Another obstacle is the general skeptical environment in Germany regarding education that does not happen in a classroom of a public school. Germany has one of the most rigid laws regarding school attendance/compulsory education and does not allow most variations from classical education in a classroom by teachers, who are in most cases civil servants.
Who pays for online learning courses?	National and local government

Funding	
Funding Model	Most of the German states do not allow independent school budgets. Some states allow small budgets that can be freely used by the schools. Those budgets are calculated by the number of teachers that teach at the specific school. The labor costs are usually beard by the state education ministries (approximately 80% of the total school costs). The material costs are usually paid by the municipal governments (20%).
Do private enterprises partner or participate in government-funded online learning programs?	Yes. The Telekom subsidiary t-systems partners with the state government of North Rhine-Westphalia in the project e-FIT, which is dedicated to supporting students with a migration background to get additional online assistance in learning German, math, and English. The publishing houses Cornelsen and Klett (which focus on educational resources) partner with the state government of North Rhine-Westphalia in the project SELGO (which stands for "more self-responsible learning and preparation for the final high school exams").
What technologies are students using to access online and/or blended courses?	Netbook, laptop, and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

The total share of private expenditures on primary and secondary education in Germany is around 1.5%; private initiative as a driving modernizer in the school system can't play a big role, taking these numbers into account. The teachers are not provided with sufficient training in online teaching; the general provision of seminars and training for teachers was cut in most of the states due to austerity measures. There is no visible political will to digitalize the classrooms; this can be caused by the fact that German education policy tries to keep private education and alternative learning concepts as small as possible. According to the PISA-survey, Germany had the lowest number of regular computer integration/usage in school lessons within all OECD countries in the year 2007.

The Web-Individualschule (individual Web-school) is specialized for German students who live abroad, have medical problems, or already work; 97 students have graduated from this school. The students are provided with learning materials via Web-based software. Students get feedback and help from their teachers via chat and voice-clients. They only have to go to one of the partner schools for final exams once a year. The monthly tuition fees range between 500 and 1500 Euros (www.web-individualschule.de). The publishing house Cornelsen runs www.lo-net2.de, which offers teachers online resources and the infrastructure for Web-based learning. Teachers Online (www.lehrer-online.de) is an additional private provider of online learning resources. The publishing house Klett offers e-learning platforms based on the schoolbooks they publish. Teachers can invite their students to Web-based tests and assess their strengths and weaknesses.

Universities provide a much broader scale of online learning opportunities in comparison to primary and secondary schools. Almost every university provides at least e-learning tools for the faculty and the students. Furthermore, a lot of lectures are filmed and either live screened or can be watched afterwards. The distance university (FernUni) in Hagen has provided students who already work or people interested in lifelong learning with a flexible learning concept for more than 30 years; 73,000 Germans are currently enrolled in this public university. The distance university Hagen uses a lot many electronic distance learning concepts for the distribution of their course materials. For further information about the German school system, see http://www.socsci.uci.edu/~rdalton/germany/ch5/education.jpg.

Greece

Summary: Online learning options are available to some students in Greece. Few students participate, however, as it is based on existing modules taught and does not offer new knowledge opportunities.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes, e-books (school taught courses) and exercises (based on taught courses)
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to no students.
Student Information	
How many students participate in online learning?	Few. Online learning is based on existing modules taught in schools (it does not offer new knowledge).
Geographic location of students	Urban students and student attending large centers
Rationale for the use of online learning	Online learning provides additional benefits, including better learning in existing modules and communication with other schools (within the same country and abroad).
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Regional centres and universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	National government, universities or institutions of higher education, and special institutions belonging to the central government
Are there quality standards for online teaching and/or online courses?	Yes. http://www.pi-schools.gr/lessons/hellenic/
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students, lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online), lack of Internet access and technology for students, the frequent lack of modern technology infrastructure, and the lack of incentives for teachers
Who pays for online learning courses?	National government

Funding	
Funding Model	School funding is based on how long students are in a physical classroom setting, otherwise known as "seat-time."
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	Laptop and desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	5% (lack of funding, etc.)
Summary	
The lack of funding and effective government policies are the main reasons for the resistance of online learning in Greece. There exists a lack of incentives for teachers and students. Online learning programs are available in some private schools. Where this field is concerned, better government funding and more effective policies are required.	

Hungary

Summary: Many people, especially in the rural areas, have no Internet access. Unfortunately, not many teachers are e-literate. Very little online material is found in Hungarian and the material that might be available is mainly private, so public education does not support it. Public education in Hungary is not very flexible. Even if there were online resources, officially, it would be difficult to get it accepted into the curriculum.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A

What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
There are some opportunities for online learning in the private sector, especially for language learners. Many teachers use online resources to teach online. For language teachers, Skype has proved to be a good tool to teach online.	

Italy

Summary: Whiteboards are used in classrooms via programs such as LIM and Classi 2.0 (Classroom 2.0). These tools are used to enrich materials and to connect the students to each other and to the teacher.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to no students.
Student Information	
How many students participate in online learning?	The ministry estimates that 850,000 students will be participating in online or blended learning by the end of 2012. (Total student population is about seven million.) However, this is mainly due to the LIM program. Classi 2.0, Aurora, and HSH@Network totaled less than 10,000 students involved in 2010 (2500, 200, and 7000 respectively). The respondent was not aware of any statistics on individual school initiatives.
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rationale for the use of online learning	To provide courses for medically homebound students, students with special needs, students who travel (such as athletes, actors, etc.), and students who are rehabilitating from incarceration

Teacher Training	
Are there special training requirements for teachers to teach online?	Yes
Who trains teachers in the use of online learning resources for students?	There are no actual requirements, but a significant fraction of the teaching body is undergoing special training offered primarily by the National Agency for the Development of School Autonomy (ASNAS; http://www.agenziascuola.it/), as well as by the ministry and individual schools. Local schools train teachers as well.
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	National government Local government Teachers within schools Open education resources that are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) Lack of Internet access and technology for students
Who pays for online learning courses?	National government Local (state and territory) government Local schools bear the costs of their own programs, when they're not part of national or local initiatives.

Funding	
Funding Model	The country calculates a school's funding based only on how long students are in a physical classroom setting, otherwise known as "seat-time." School funding is a very controversial topic in Italy, and the relevant rules have changed several times due to budget constraints in the last few years. The number of students and the type of school remain major factors. However, online learning is funded separately under the above-mentioned programs through public contests. Those schools that develop their own programs must rely on their own resources.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. The government is trying to get private entities to partner with it with regard to the provision of technology and know-how.
What technologies are students using to access online and/or blended courses?	Tablet computers Netbook computers Laptops
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

Italy is doing relatively well, regarding blended learning, but not as well in 100% online learning. This is partly due to political choices. The respondent notes a society-wide lack of computer literacy and tendency to not understand the efficiency gains brought about by the Internet. There is limited embrace of innovation, and there are issues with financing. Within the ministry, there are both very innovative and very conservative civil servants. The effort of the former may be jeopardized by the latter. In the respondent's research, a coordination problem was found among the government and individual schools. The respondent feels that local programs currently play a much bigger role than national ones and ought to be better measured and more fully integrated.

There are some programs and initiatives that were noted. Nuove Scuole ("New schools") address almost exclusively the needs of working adult drop-outs. There is also the "Digital School Plan," which is still pretty new; there is plenty of room for further development, hopefully with some help from the private sector.

Programs like LIM and Classi 2.0 (Classroom 2.0) aim to equip classrooms with multimedia-interactive whiteboards and individual devices, respectively, that enrich materials, connect the students to each other and to the teacher, and enable them to be an active part of the class and to review its content at home. Strictly online learning programs are available for hospitalized students (Hospital-School-Home Network) or students held in detention at juvenile centers (Aurora, "Dawn"). However, these programs are still at an introductory stage, and a major role in promoting online or blended learning is currently played by local schools, which enjoy a significant degree of autonomy in that regard.

Kosovo

Summary: There are e-learning programs at the university level; however, a few exist in the K–12 private sector. Beyond the private sector, online learning is virtually nonexistent, and change will happen slowly.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A

Student information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

According to officials in the Ministry of Education, Science and Technology, the main reason there is no use of online learning in public education is the lack of financial capabilities to fund the infrastructure, which would make online learning possible. Kosovo is the poorest country in Europe with an unemployment rate of 47% and a very small budget for education. The government is focusing on the quantity of education opportunities and not putting as much emphasis on the professional development to make e-learning quality. It would require significant effort to enhance the infrastructure of the schools. The respondent emphasized that the best way to approach online learning would be through programs in the private sector that are accessible to students who are tired of old-fashioned teaching methodologies and insufficient technological resources available in the public sector.

Poland

Summary: The legal framework of education for primary and secondary schools does not allow delivery of education through online courses.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

There is no policy regarding online education that is prepared or discussed at the Ministry of Education. Even private schools are not allowed by law to deliver online education. In Poland, there are not many private schools, but even the small number of them cannot provide online education. Some of them use e-learning platforms for content delivery so that students can upload content for specific courses through the Internet. Online education (blended learning) is provided at the level of higher education. The legal framework for higher education is open for online learning, but it cannot be 100% virtual. Most of the time, only 60% of education can be online. All tests and exams are taken in person. At the same time, there are many more private players on the market of higher education, and most private universities deliver some online programs.

Republic of Macedonia

Summary: Online learning is not offered on a large scale; instead, there are individual efforts made by schools, professors, or groups of students.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	There is no official information about the number of students. The online learning system is still not officially recognized In Macedonia and is in the process of development. It is not provided by many schools, and where it is offered, it is only done so via initiatives by the school, professor, or group of students. Thus, only a small percentage of learning is done online in Macedonia.
Geographic location of students	Students attending small schools
Rationale for the use of online learning	Provide courses not available at students' assigned schools (such as specialized courses, courses unavailable due to a teacher shortage, etc.) Provide students with options when they have scheduling conflicts
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Regional centers Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	National government Universities or institutions of higher education Teachers within schools Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – No Standards for quality online courses – No

What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) High costs of online course development
Who pays for online learning courses?	No answer
Funding	
Funding Model	The funding is mainly calculated on a different basis, but the most important one is the capacity of the school. There are different standards for allocation of the budget among which type of school, infrastructure, employees' structure, number of students, etc. With the decentralization process made in Macedonia, the secondary schools went under this treatment, which means that the local government is responsible and authorized for the infrastructure, including the capacity, noncurricula matters and issues, whereas the Ministry of Education is authorized for the curricula and the overall educational system.
Do private enterprises partner or participate in government-funded online learning programs?	Yes. There are private companies engaged and participating. These companies are engaged by the schools themselves and are obliged to develop the software for the online learning course, to maintain and in some cases to provide training for the teachers on how to use it. The schools in Macedonia do not necessarily have their own IT staff to maintain software, so this is a more practical temporary solution, since decisions are made on an individual basis by the schools, professors, etc.
What technologies are students using to access online and/or blended courses?	Netbook computers Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	E-learning or online learning is still in the experimental phase. In the past 10 years, there was no kind of e-learning. The Republic of Macedonia has not set standards for online studies yet.

Summary

The government of the Republic of Macedonia recently started to develop the e-education system, starting with the supply of computers for the schools and the development of an E-gradebook. The E-gradebook is developed for better communication between the professors and the parents. In the program of the government, there is a foreseen e-learning system being slowly developed. Nevertheless, the process is demanding, and there are only a few steps made so far, starting from "Computer for every desk," computer training for the teachers, and the E-gradebook. All other e-learning courses, which are functioning in a few schools, are implemented individually by the school itself, without any interference of the national authorities.

The private universities and a few private secondary schools have online learning systems for those students who are not able to attend classes for different reasons. It is also used for blended class programs, as well as additional training courses for the subjects. The private educational institutions in Macedonia create their own curricula and standards, usually following the European example and striving for more advanced methodology and systems. The national and local authorities in Macedonia have still not adopted any standards for implementation of the e-learning program, and this program is rarely found in the state educational programs and schools. See the following for more information: http://www.e-uciliste.com/ http://www.edline.net/pages/Nova_International_Schools http://fon.edu.mk/content.aspx?cid=105&ln=en http://www.eurm.edu.mk/moodle/login/index.php http://learning.fon.edu.mk/5/.

The Republic of Macedonia has realized the importance of education, and it has been trying to make improvements in the system and to implement new segments, which will bring the education closer to the new era of technology, quality, and prosperity. One of the focus points is the e-learning system. The first step to be undertaken by the national authorities was the implementation of the project "Computer for every desk" as was mentioned above. With this project the government provided the schools in Macedonia with computers and Internet, which are supposed to ease the learning process, to provide the students with the technology, and to improve the process of lecturing and the overall curricula. Furthermore, the government and the Ministry of Education in Macedonia developed and incorporated the E- gradebook, an instrument that will improve the teacher-parent communication, enable fast and simpler insight of information by the professors, and enable centralized and fast statistical analysis made by the ministry. The E-gradebook is also implemented as an easier way to keep track of the classes, students' presence, their grades and a better information tool for the parents regarding their children's progress in the school. These changes in the education system were made in the past two to three years so it is relatively new for the Macedonian students and professors. On the other hand, the online system is a little more developed in higher education, where much of the administrative work (like grading, applying exams, and student's files) is done online, and some of the universities have applied some of the learning software, such as: Moodle, Angel, and Dokeo, and some of the courses can be taken online. The private education entities are slowly developing e-learning, and some of them already practice online learning and blended programs for the students. Some of the materials for the students can be found in open source software, where they share the materials, so they can establish cooperation and make learning easier, more interesting, and more interactive. These students are from the Internet generation, so schools must make new strategies to interest students in the curriculum and the classes, and find better ways to provide them with pools of information from the global network, all necessities for proper education, and additional training with all conditions. The online learning system is the future of the educational system worldwide, and Macedonia is not an exception. Implementing this type of learning is a top priority and that is why a lot of studies are conducted to see whether the conditions are sustainable and whether the children are ready for this type of learning. Another point where the technological innovation in the educational system is taken very seriously is in the training that has been given to the teachers about online learning, online grading, and materials sharing online, as well as the English and Informatics courses that were free of charge; their main goal is to teach and train the teachers so they can be more flexible and open to the new improvements that will be introduced in the near future. Of course, there must be a period of adaptation to the new methods of learning in order for the whole process to be implemented successfully. The biggest threats to the implementation of this project are the teachers, especially the elder ones, because they are resistant to the new technological changes in education, and they have little or no trust in new technologies and computers. The Republic of Macedonia has been working very hard for improvement of education; it is focused on basic issues, including the improvement in technology and of the curricula. It has incorporated different standards concerning evaluation of the quality, the teachers, etc. Furthermore, the Ministry of Education has translated books from prominent international experts, which were not available for the Macedonian students until now. Online learning standards must be part of the new education era, and this is one of the programs foreseen by the national authorities in Macedonia.

Romania

Summary: Online learning is used to help students see experiments that they would not be able to see otherwise.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	E-learning software is now available in most of Romania, but the impact evaluation methodologies of the educational authority are very weak and do not provide us with sufficient information about the number of students who actually use them.
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rationale for the use of online learning	Romanian students use blended learning to become more aware of ICT (information and communications technology). The multimedia content helps students visualize some experiments (for example in physics or chemistry). Some teachers use e-learning software for student evaluation.
Teacher Training	
Are there special training requirements for teachers to teach online?	No answer
Who trains teachers in the use of online learning resources for students?	Regional centers Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No answer
Online Content and Courses	
Who develops online content and courses?	Private companies National government Teachers in schools Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)

Are there quality standards for online teaching and/or online courses?	Yes. Most private companies that develop online content have their courses approved by the Ministry of Education. By doing so, they show that their courses follow the notions covered by the official curriculum set by the ministry. As the curriculum changes almost every year, a set set of quality standards could not be found.
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online)
Who pays for online learning courses?	National government Students/parents The European Union has allocated funds for schools to invest in computers and e-learning software.
Funding	
Funding Model	The country calculates a school's funding based only on how long students are in a physical classroom setting, otherwise known as "seat-time."
Do private enterprises partner or participate in government-funded online learning programs?	Yes. The e-learning software used by public schools in Romania is developed by private companies. Moreover, SIVECO, one of the major players in the e-learning industry, has been training teachers and assisting schools with implementing blended education. Also, through the Advance Learning project (www.advancelearning.ro), SIVECO builds software that allows teachers to create their own online courses and evaluation methods. In addition, the company created www.portal.edu.ro, which is the platform for the Digitalized Educational System program initiated by the Ministry of Education.
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	Although it is clear that Romania is increasingly using blended education in public schools, there are no official numbers to account for the growth rate.

Summary

There are a few main reasons that inhibit the spread of online education in Romania.

- The educational system is very centralized. Homeschooling, distance learning, and Internet courses are not recognized by the educational bodies.
- As far as blended education is concerned, the regular use of e-learning software does not allow teachers to attain the learning objectives, partially due to the limited time and the overloaded compulsory curriculum, and partially due to the uncertainty of teachers in using such new tools, conducting such time-consuming, computer-assisted teaching activities.
- The rapid changes of compulsory curriculum for some disciplines maintain a distance between the learning objectives and the content of educational software provided.

For more information about the programs, see:

Siveco: www.siveco.ro, www.advancedlearning.ro, and www.educreativ.ro

Softwin: www.intuitext.ro

Nowadays, most of the Romanian efforts in the area of e-learning are directed toward the educational use of information and communications technology (ICT). A coherent strategic document dealing specifically with technology-enhanced education is under development, and its policy recommendations could represent the accent needed for a responsible usage of computers and Internet for education purposes on a large scale. In addition, the Ministry of Education has taken some steps toward incentivizing teachers to use blended education. For example, one hour of teaching that includes computer-assisted learning counts as 1.25 hours of pay. Good progress has also been made in training teachers to use computers and e-learning software. Many of these measures are a result of the EU efforts to increase the use of ICT in the education system. But EU pressure is not enough as it uses soft regulation in order to achieve its objectives. The respondent believes that Romania needs to change its highly centralized system if a shift toward online learning is to be made. In order to provide more course options and alternatives for medically homebound students or working students, the Romanian educational authorities need to adopt a more flexible approach. It has to support empowerment of individualized instruction, the stimulation of creative potential and cognitive skills for future knowledge-builders, and paralleling of online learning methodologies used by colleges and universities to primary and secondary education as well. Unfortunately, the Romanian educational system is rather unstable as the evaluation methods and the year structure are changing with each new Minister of Education appointment. Therefore, it is hard to predict the future policies, and there is a need for stability combined with an openness to new technologies and innovation.

As the European Union pushes toward the creation of a knowledge economy, Romania has been receiving funds in order to digitalize learning. It has invested in computers for all schools and the creation of e-learning software. This software is now available in most schools and is used by teachers in the classroom as a way to enhance the learning experience with multimedia courses. For example, a chemistry teacher might choose to use an e-learning software in order to help her students visualize an experiment that she cannot perform due to lack of necessary substances. The e-learning courses are not online and can only be used by students in the classroom with the supervision of the teacher. The Internet currently plays a rather insignificant role in public education in Romania. The educational authorities in Romania do not implement other types of online learning. For example, disabled or sick students cannot take online courses in order to make up for lost classes. One has to bear in mind that even homeschooling is illegal in Romania. Therefore, it seems that it will be a long time before the benefits of online learning will be available to students in this country. There is currently no strategic plan or report. However, one expert who works to promote e-learning in Romania says that it is possible that the Ministry of Education will publish one next year. This is partly due to the pressure coming from the European Union.

Russian Federation

Summary: Online learning is mainly concentrated on students who are unable to physically attend school, namely medically homebound and those with special needs.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	Children with special needs using online learning account for approximataly 0.1% of all student population (15,000). There are no precise estimates of the percentage of children using the Internet as an approved instrument in their school learning, although it could be said that the number of students in the only acknowledged online school is about 11,000 a year.
Geographic location of students	Urban students, including students attending large schools
Rationale for the use of online learning	Provide courses not available at students' assigned schools (such as specialized courses, courses unavailable due to a teacher shortage, etc.) Provide courses for medically homebound students Provide students with options when they have scheduling conflicts Provide options for students with special needs Provide options for students who travel (such as athletes, actors, etc.)
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	There are no special courses in online learning for Russian teachers.
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	Private companies Universities or institutions of higher education Teachers within schools Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students
Who pays for online learning courses?	Local government Students/parents Local government is responsible for access to the Internet for all schools, so it pays for additional e-learning indirectly, as well as for distance learning of children with disabilities. But the substantial part of expenses is for parents to pay if they want their children to learn more via online courses.
Funding	
Funding Model	Public funding is calculated based on the number of students. There are benchmarks of money to be spent for each student. Although the amounts vary depending on region and whether it deals with rural or urban students, but generally money follows the student..
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	Netbook computers Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	No available data

Summary

The main reason for the shortage of online learning in Russia is because the high level of regulation of learning does not allow any alternative to grow. The only way to get recognized secondary education is to go to a licensed school with prescribed standards of content, procedures, and techniques. But there is no officially acknowledged program for online learning. This is why it is seen as an additional tool for the normal learning process (even in private schools, which must also follow rules imposed by the state).

There are plenty of resources that provide services of online learning (courses on video, tests, exercises and the like). The noteworthy ones among them are the following:

http://www.internet-school.ru/ which is the only organization allowed to provide approved services in secondary education online.

http://www.interneturok.ru/ which is a free resource of lectures on video and other materials for online learning, funded by charity.

http://ballov.net/ which is a system of taking grades and connecting teachers, pupils, and parents, run by a for-profit organization.

http://www1.ege.edu.ru/demovers which is a page with demo-versions of final state examination for all of the science courses.

http://window.edu.ru/ which is the largest library of schoolbooks, vocabularies and other text materials needed for learning.

Government-funded programs of online learning are rather marginal. There are certainly no mainstream ones, and the regular process of learning in a state-run school assumes that a pupil should be face-to-face with a teacher, especially connected with testing results of learning. E-learning is often used as an additional tool within the framework of the normal educational process, but never as its form. For instance, a teacher may check and grade exercises of students by his or her own initiative. There is a special site (http://ballov.net/) for taking grades and keeping in touch with students and their parents but it is not recommended by any authority (it is privately owned and for-profit), not funded by the state, and only used voluntarily. Overall online learning in Russian primary and secondary schools is not forbidden; it is neither provided nor supported as one of the opportunities of education in public school. The only exception is for students with disabilities and those who are in emergency situations. They can learn via the Internet upon general condition. There is the Prior National Project (PNP) "Education" that contains the direction of advancing Internet in educational system. The project is related to widening investments to infrastructure (to leading universities, country schools, and so on), and the stimulation of creative teachers and youth. As for Internet technologies, government has provided computers and Internet access for all public schools in Russia by 2010, as well as for kindergartens and correctional schools. It is said that the main objective of this directive was to open access to modern information and educational resources for students and teachers throughout Russia and to provide equal learning opportunities for all students. Another important issue for PNP to deal with was to improve the computer skills of school teachers. The total funds spent for development of Internet technologies was about RUR three billion. See PNP "Education" for more information: http://mon.gov.ru/pro/pnpo/int/

Serbia

Summary: Online learning is aimed at those students who need supplemental and advanced learning opportunities but are usually the efforts of individual teachers rather than whole institutions.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	There is no research that can provide valid numbers regarding the number of students participating in online learning. The Statistical Office of the Republic of Serbia did research on the usage of ICT in Serbia. In 2010, 22.8% of the population used the Internet for learning. See the following link for more information: http://webrzs.stat.gov.rs/axd/en/dokumenti/ict/2010/ICT2010e.pdf
Geographic location of students	Urban students
Rationale for the use of online learning	Online learning provides options for students to take college-level courses for college credit. Online learning is mostly pursued by persons who are well educated and who represent the urban faculty population.
Teacher Training	
Are there special training requirements for teachers to teach online?	No. It is more or less the individual efforts of teachers. The project Creative School is financed and implemented by Microsoft Serbia and the Institute for Advancement of Education. Its aim is to support teachers that are using e-learning in their schools. More information can be found at the following link: http://www.kreativnaskola.rs/ In 2010, Technical Faculty in Čačak developed MA program in e-learning. MA program is supported and financed through Master Studies Development Program that is implemented by WUS Austria and financed by Austrian Development Cooperation (ADC). See the following link for more information: http://www.wus-austria.org/project/0/23.html
Who trains teachers in the use of online learning resources for students?	Universities and colleges Microsoft Serbia through its program Creative School together with the Institute for Advancement in Education
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	Teachers within schools
Are there quality standards for online teaching and/or online courses?	Standards for quality courses – No Standards for quality teaching – Yes, at the university level There are quality standards for online (distance learning) teaching at the university level, but not for elementary and high school levels. http://www.kapk.org/index.php?option=com_content&task=view&id=16&Itemid=28&lang=en Standard number 12 applies to DSL; however, in year 2007, the first remarks and recommendations on changing that standard were sent to Accreditation and Quality Assurance agency of the Republic of Serbia. Those recommendations were not accepted. Recommendations in Serbian: http://www.eucenje.rs/admin/images/up/b/4/9/c1_upload22_eLearning%20preporuke%20-%20eLTF%20Srbija.pdf
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of Internet access and technology for students
Who pays for online learning courses?	Online learning courses, as already mentioned, are individual efforts of some teachers and schools (elementary and high schools). As for the universities, WUS Austria (World University Service) had e-learning program for universities and faculties in Serbia and Montenegro. More about the program can be found at the following link: http://www.wus-austria.org/project/0/47.html
Funding	
Funding Model	The country calculates a school's funding based only on how long students are in a physical classroom setting, otherwise known as "seat-time."
Do private enterprises partner or participate in government-funded online learning programs?	No. There are no government-funded online learning programs.
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	It only started developing in the past 7–8 years.

Summary

Overall, there is a lack of interest, knowledge, and technology in the country.

Link group has online learning in different fields (ICT, education, foreign languages); they have developed Link Distance Learning System. More about Link group: http://www.link-elearning.com/linkdl/elearning/

Some private universities also have distance learning programs: education

Megatrend University: http://www.megatrend-edu.net/o_univerzitetu.php?un=mtvu

Singidunum University: http://www.dls.singidunum.ac.rs/

Also large international companies like Microsoft, CISCO, and Coca - Cola in Serbia have online courses for their employees.

Serbia still does not have the infrastructure for development of online learning. Most efforts for developing online learning are still providing basic infrastructure and basic knowledge on the use of ICT in education. The situation is a bit better in the field of higher education than in elementary and high schools. All universities in Serbia formed eL centers in the frame of the e-learning Task Force project that was financed by the Austrian Development Agency and implemented by WUS Austria in 2004. http://www.wus-austria.org/project/0/47.html

Some elementary and high schools in Serbia that have online courses:

http://www.eduns.net

http://www.koncar.edu.rs/

http://www.ekosmile.edu.rs/

http://tehnickaso.edu.rs/

http://www.skola.vigimnazija.edu.rs/

http://etsmp.moodlehub.com/

http://metpb.moodlehub.com/

Education authorities do not have a strategic plan or report of progress in online learning in Serbia. However, the Ministry of Telecommunications and Information Society made a development strategy of Information Society of Republic of Serbia until 2020. In that strategy, there is a part that deals with e-learning. It is more or less only based on providing IT infrastructure for elementary and high schools in Serbia.

http://www.mtid.gov.rs/wp-content/uploads/Dokumenti/Strategije_akcioni_planovi/Strategija_razvoja_elektronskih_komunikacija_2010-2020.pdf

Programs of Ministry of Telecommunications and Information Society are called AMRES (Akademska Mreza Republike Srbije - Academic Network of Republic of Serbia) http://www.amres.ac.rs/index.php?lang=en and - Digital School - http://digitalnaskola.rs/ Serbia also signed eSEE Agenda + (Electronic South East Europe Agenda), a document that deals with the development of an information society from 2007 to 2012 together with other SEE countries. In March 2009, Belgrade Open School (www.bos.rs) organized a meeting in the frame of their project "Towards knowledge society" with support from the Fund for Open Society. The aim of the meeting was to present real situations on e-learning in Serbia with perspective of priorities defined in the eSEE Agenda +, and on the development of e-learning in Serbia.

Slovak Republic

Summary: Private rather than public schools have a growth in K–12 online learning. Current legislation in the Slovak Republic requires an attendance form, so full-on online learning is not built into policy.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A

Summary

Current legislation in the Slovak Republic requires an attendance form. Online learning has not been reflected in legislation yet. Technical equipment in Slovak schools for online learning is not sufficient. It is necessary to have broadband Internet connection for such learning. Despite the fact that all 3,300 schools are connected to the Internet, only a total of 300 schools have broadband connections. Blended learning is being used in improving qualifications of the teachers themselves, not in the education of students. Altogether, the setting of Slovak educational system has not lead to online learning yet.

Our random survey showed that the situation in private elementary and high schools is better in terms of the introduction of online learning and blended learning than in public schools. However, in many private schools, this type of education has just started to develop and in many of them, it is in the process of introduction. Some bilingual schools do not prefer online learning because of the focus on language teaching and therefore they prefer an attendance form while using blended learning in the education. As far as providing study materials over the Internet is concerned, it is dependent on an individual teacher to a significant extent. In other words, in many schools, there is no unified approach for providing students with study materials through the Internet. In schools with a specific focus of education, e.g., sport high schools, online learning is used more frequently due to the individual curriculum of the students. As for broadband Internet connection, the ratio of schools equipped with this type of connection is higher in private schools. In this term, they are exposed to lower barriers. Some private schools run one-on-one computing, where every student uses his/her computer and Internet during classes. A survey conducted within the country found no learning done using online video lectures. As explained by school representatives, it is partly because of the risk of piracy and further spreading of such materials outside the schools. The other reason is that high-quality hardware is required for such learning, and schools do not have it yet. In conclusion, private schools do not refuse online learning per se, they just do not consider it as the only proper form of education due to the lack of personal face-to-face approach and also due to the threat of specific goals not being accomplished. PROVIDERS OF E-LEARNING PROJECTS IN SLOVAKIA: Microsoft Slovakia (http://www.microsoft.com/slovakia/education/Produkty/default.mspx) Future school project (https://ep.edu.sk/default.aspx) Moodle (http://www.moodle.sk/) The planet of knowledge (http://lms.planetavedomosti.sk/ctrl.php/login/login) EXAMPLES OF SCHOOLS THAT PROVIDE SOME FORM OF E-LEARNING: - 1st Private Grammar School (https://ep.edu.sk/0003/default.aspx) - Private sport grammar school in the city of Trencianske Teplice (http://ssg.edupage.org/elearning/?)

Slovenia

Summary: E-learning at primary and secondary schools is in a domain of teachers and their motives to offer the content online using Moodle and Yoomla platforms. Online learning is typically for students who are disabled, athletes, and injured (hospitalized for a longer period).

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	Just below the EU average
Geographic location of students	Suburban and urban students in large schools
Rationale for the use of online learning	Provides courses for medically homebound students Provides students with options when they have scheduling conflicts Provides options for students with special needs Provides options for students who travel (such as athletes, actors, etc.)

Teacher Training	
Are there special training requirements for teachers to teach online?	Yes. They attend seminars and conferences where they are given information about the use of Information and Communications Technologies (ICT). They have a catalogue with educational initiatives for the use of ICT and a list of seminars to choose from. And schools usually have an ICT expert employed.
Who trains teachers in the use of online learning resources for students?	Local schools Regional centers Universities and colleges Outsourced private companies People from the National Education Institute of the Republic of Slovenia
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies National government Local government Universities or institutions of higher education Teachers within schools
Are there quality standards for online teaching and/or online courses?	Standards for quality online courses – Yes; usually ICT technological standards are followed Standards for quality teaching – Not available in a comprehensive mode
What are the primary obstacles to the growth of online learning in your country?	Too low a self-initiative of teachers and too complex a system of bureaucratic steps that are needed to launch an e-learning initiative at schools
Who pays for online learning courses?	National government Local government European Social Fund Local authorities co-finance only primary schools (~25%) with their equipment, the rest is provided by the national government (~25%) and the ESS (~50%). * Municipalities are official founders of public primary schools. E-learning courses for secondary schools are financed by the government and ESS (about 50:50) only. *The Ministry for Education and Sport is a founder of secondary schools.

Funding	
Funding Model	Funding is mixed: program-based and per student (per-head).
Do private enterprises partner or participate in government-funded online learning programs?	Yes, at setting infrastructure. Curricula is developed by the staff at the National Education Institute of the Republic of Slovenia. Tenders for setting up some pieces of infrastructure are basically organized by the ministry and at the EU level. A large part of the infrastructure is through the public and run by national operator ARNES.
What technologies are students using to access online and/or blended courses?	Mobile phones Laptops Desktop computers A project for mobile tech is underway by LTFE (eMAPPS.com). * Availability depends on Internet connectivity; servers Servers with e-learning material run in Moodle and Yoomla open-source environment.
What is the rate of growth for online learning in your country over the past 10 years?	N/A (figures have been increasing lately)

Summary
There has been no resistance noticed publicly. MIRK: http://www.mirk.si/english/mirk-e.html B2: http://www.b2.eu//en/home.aspx Nevron: offers Auralog's online language courses DOBA: one of a couple private high schools in the country – offers online courses on Moodle environment: http://moodle.doba.si/ Basically, e-learning at Slovenian primary and secondary schools is in a domain of teachers and their motives to offer the content online by identifying and applying to various projects and initiatives that are run by the ministry staff or at the EU level via the so-called e-tweening system. Programs are specific and heterogeneous, ranging from various fields, and is essentially bureaucratic. The link to students and their needs is weak, and the whole issue of e-learning has become a rather expensive political caprice, rather than a truly efficient tool serving the needs of students in the best way. Initiatives and education has been organized by the Ministry for Education and Sport. Complete e-material for certain subjects has been available centrally to all teachers, while the availability of so-called e-classrooms and e-blackboards depends on the technical equipment schools have at their disposal and on whether the school participates in e-learning initiatives in the first place. Students may in principle participate from home (if their school joined e-learning initiatives), or could be linked to the school from hospital in Ljubljana, if so demanded by their parents. There are certain classrooms in the country that are linked with the equipment for audio-video signal transfer. In general, primary and secondary schools are well equipped with computers and Internet connections.

Spain

Summary: Current online programs only provide generic access to the Internet and are oriented to self-study. Typically, online education is only at the post-graduate level. Since many private schools are implementing online programs, regional governments are studying how to do the same, but still there are no significant public programs related to online primary and secondary education.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	Less than 10% in public education (primary and secondary education)
Geographic location of students	Urban students and those attending small schools
Rationale for the use of online learning	Provides courses not available at students' assigned schools (such as specialized courses, courses unavailable due to a teacher shortage, etc.) Provides more course options for gifted students

Teacher Training	
Are there special training requirements for teachers to teach online?	Yes http://formacionprofesorado.educacion.es/ http://www.ite.educacion.es/
Who trains teachers in the use of online learning resources for students?	Regional centers
Does the government have licensing requirements or require a special credential to teach online?	Yes
Online Content and Courses	
Who develops online content and courses?	Private companies National governments Local governments Universities or institutions of higher education
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – No Standards for quality online courses – No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students High costs of online course development
Who pays for online learning courses?	National and local governments Students/parents National and local pay for the public online education, but parents make the biggest effort when they choose a private school with better online education options.
Funding	
Funding Model	The country calculates a school's funding based only on how long students are in a physical classroom setting, otherwise known as "seat-time."
Do private enterprises partner or participate in government-funded online learning programs?	Yes Microsoft has recently signed an agreement with the Spanish government in order to provide a laptop and educational software to every student: http://www.educaciononline.com/espanol/content/en-espa%C3%B1-microsoft-firma-alianza-con-el-gobierno-para-la-escuela-20
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	No answer

Summary
There is a lack of funds for new equipment. Most of the private business schools (IESE, ESADE, IE...) are based in the Web, and have world-known online programs: www.iese.edu www.ie.edu The "Programa Escuela 2.0," started in 2009 funded by the national government (100M € / 2010; 100M €/2011), has provided a laptop to 400,000 students and 20,000 teachers. http://www.educacion.gob.es/horizontales/prensa/notas/2009/09/escuela2p0.html The program only provides generic access to Internet and is oriented to self-study. Online education is only usual at the post-graduate level; 30% of the post-graduated programs are online, but more than half of them are carried out by private universities and are privately funded. At the primary and secondary levels, education in Spain is a responsibility of the regional governments. So, there is a very big difference between different regions. Since many private schools are implementing online programs, regional governments are studying how to do the same, but still there are no significant public programs related to online primary and secondary education. Both the national and regional governments have expressed their intentions to advance to a blended model, but the discussion is still at a germinal level. The Action Plan for Education 2010–2020 only says a few general intentions about online education. http://www.educacion.gob.es/horizontales/iniciativas/plan2010-2011.html There are a few interesting websites about the topic: http://www.guiaderecursos.com/webseducativas.php#distancia http://www.educaciononline.com http://www.todoeducacion.es/ Spanish Ministry of Education website is at http://www.educacion.gob.es/portada.html

Ukraine

Summary: There are a few challenges limiting the growth of K–12 online learning, including an outdated system with a lack of targeted efficiency, corruption and insufficient funding, and the lack of legislation to support the changes to the system. This is apparent even in private schools.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A

Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
Some schools have started to adopt Internet technology in their learning processes. For example, some schools place the tasks and homework for students online. Additionally, online learning necessitates a step toward "customer of educational services." In Ukraine there are currently new requirements for teachers who give certification (certifying proficiency level). This means they have to prepare all materials for lessons in electronic format (PowerPoint – presentation, hand-outs, homework tasks). The aim of this approach is still unknown, but likely these resources will be classified as educational materials, and this is a step toward online learning. There are also some changes to the legislative documents. These changes will make it possible to try this type of learning in private schools. An exception exists for individual learning. For this type of learning, there needs to be a medical certificate that argue the impossibility of studying in the usual format. After reviewing the medical certificate, teachers must go to the home of the students for individual study. There is also distance learning, but it is impossible to get basic primary or secondary public education this way.	

United Kingdom

Summary: Online learning has not been resisted in the United Kingdom. The main problem seems to be the lack of awareness about online learning. Funding is a major issue as far as ICT is concerned. However, the government has made sure that a majority of primary and secondary schools have access to computers and the Internet.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to some students.

Student information	
How many students participate in online learning?	Over 99% of schools have broadband Internet access. However, this may not mean they are using it for online learning. The majority of schools (over 80% of secondary schools) have access to learning platforms.
Geographic location of students	Rural, suburban, and urban students, as well as students attending small and large schools
Rationale for the use of online learning	Provides courses for medically homebound students Provides more course options for gifted students Provides options for students to take advanced of college-preparatory courses Provides options for students to take college-level courses for college credit
Teacher Training	
Are there special training requirements for teachers to teach online?	No. There are no special requirements for teachers to teach online. They must be qualified teachers, and depending on the schools they teach at, may or may not have received ICT CPD training. Please refer to the Teacher Professional Development part of the Case Study for a discussion on the subject.
Who trains teachers in the use of online learning resources for students?	Local schools Private providers train teachers in the use of online learning resources. Local authorities are constrained in the availability of funds to use for teacher training. An additional barrier to teacher training is the lack of knowledge about the advantages of online learning for students.
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies Teachers within schools Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – No Standards for quality online learning – No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online)

Who pays for online learning courses?	National and local government Students/parents The UK government provides general funding to local authorities (local councils) who decide how much to spend on online learning or other technological upgrades. However, there are privately provided online learning websites available that are either free of cost or require students to pay for courses themselves. There are several websites that follow the national curriculum and provide online resources for students at the primary and the secondary levels. Moodle (www.schoolanywhere.co.uk/moodle.co.uk) is a website that provides an online learning platform to schools for creating lessons and homework in an online environment.
Funding	
Funding Model	Funding is not calculated based on "seat-time." A lump sum of money is given to schools. They can then create their own budgets and spend the money according to their needs.
Do private enterprises partner or participate in government-funded online learning programs?	No. There is very little evidence of private-public partnerships in providing online learning platforms or programs at present. However, work is being done to create such programs. The people involved in online learning at the DfE are meeting with online virtual academies to create such programs. There are examples of collaborations between the government and private organizations in creating educational resources for students. Grid Club and Its Scotland (http://itsscotland.co.uk) are online websites that were initiated by the government and developed by private organizations to deliver online learning resources for students.
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers Digital whiteboards are widely used in schools across the UK to access online/blended courses in addition to the options selected.
What is the rate of growth for online learning in your country over the past 10 years?	It has not been possible to ascertain the rate of growth of online learning in the UK over the past 10 years.

Summary

There are several online learning programs, online learning platform providers, and online teacher training consultancies available. The general picture that can be drawn from various studies conducted by the Department of Education and other educational organizations is that the current atmosphere of ICT CPD in the country is fragmented and decentralized. The lack of standardization in providers and their CPD courses and products makes it extremely difficult to evaluate the impact of existing programs. There is a definite emphasis on programmes about skills and curriculum application but not about its application to teaching. This mismatch of demand and supply seems to have been caused by the lack of availability and funding of high-level providers and a lack of understanding at the management level about the advantages and the correct use of CPD programs. As several ICT practitioners do not have the support their school needs, they have become more self-reliant, developing their skills through their own initiatives. Other practitioners have complained that the current programs do not meet their needs. As school management and teachers have become more autonomous, schools have started developing their own ICT CPD budgets and plans. Another study on ICT CPD published in 2007 found that only a third of the respondents questioned had post-graduate degrees with ICT components, a third had undertaken no ICT training in the last three years, and approximately 10% had never received any ICT training of any sort. A majority of teachers claimed that their preferred way of ICT CPD learning was autonomous and self-directed. The study also found the uptake of ICT CPD programs very poor among teachers. It can therefore be concluded that not having a national-level policy will not only give schools more freedom to make their own choices but also help them to engage in informal learning through networking sites and conferences.

OCEANIA


Ashmore and Cartier Islands (AUSTRALIA)
Coral Sea Islands (AUSTRALIA)
AUSTRALIA
Norfolk Island (AUSTRALIA)
Lord Howe Island (AUSTRALIA)
NEW ZEALAND
Tasmania
Snares Islands (N.Z.)
Auckland Islands (N.Z.)
Campbell Island (N.Z.)
Macquarie Island (AUSTRALIA)

Australia

Summary: State and federal education departments make a range of Information and Communications Technologies (ICT) and online programs and resources available to teachers and students.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to most students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	All primary and secondary students make use of ICT, including online learning. The duration and regularity depends on how individual schools structure their ICT programs and resources.
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rationale for the use of online learning	To provide more course options for rural students, to provide courses not available at students' assigned schools, for medically homebound students, for students with special needs, for students who travel, and for gifted students
Teacher Training	
Are there special training requirements for teachers to teach online?	To teach in a school, all teachers must have completed an approved and registered teacher education course, normally at a university. Such courses will include ICT-related units that have to be completed, but there are no special training requirements that teachers must have completed in order to teach online. Neither current nor new teachers are trained in online teaching for students. There is no government licensing requirement or special credential to teach online.
Who trains teachers in the use of online learning resources for students?	Local schools, regional centers, and universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	Private companies, national government, local government, and open education resources are available
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) and high costs of online course development
Who pays for online learning courses?	National and local (state and territory) governments, via education departments and curriculum authorities, have the main responsibility for funding online courses. There are also courses funded by private and philanthropic groups, as well as subject associates.
Funding	
Funding Model	Australia's school funding system is so complex and lacking in transparency that is it currently under review. The situation is complicated by the fact that some 32% of students attend non-governmental schools where funding is shared between parents and state and national governments. Government schools are mainly funded by state governments, and the expectation is that they are free. A description of Australia's school funding system can be found at http://research.acer.edu.ac/policy_analysis_misc/1/
Do private enterprises partner or participate in government-funded online learning programs?	Yes. While not very common, there are examples where government and private companies work together. One example is the program funded and supported by Microsoft, see http://www.microsoft.com/australia/education/schools/partners-in-learning/innovative-schools.aspx. There are strict ethical and other guidelines covering private sector involvement in education.
What technologies are students using to access online and/or blended courses?	iPad, tablet computer, laptop
What is the rate of growth for online learning in your country over the past 10 years?	Not known
Summary	
ICT and online learning is a key government and education department priority. The dominant teaching paradigm in Australia is described as 21st Century Learning, with a heavy ICT focus, and all teachers and students are expected to make use of the new and evolving technologies.	

New Zealand

Summary: New Zealand is really at the emergent stage in terms of online learning—there is a strongly developed history in terms of traditional distance (correspondence) education, but the online aspect has been slow to emerge—largely due to the nature of its decentralized school governance approach.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online programs are available to some students. New Zealand Online and blended programs are available through the Virtual Learning Network (http://www.vln.school.nz). This is a grass-roots operation, initiated and sustained by the participating schools themselves, but funded by the government by virtue of the fact that these schools are all funded to educate the students face-to-face, and so retain that funding for "hosting" the students who access their learning from outside the school. The only real examples of government-funded online or blended programs outside of this are the Correspondence School (http://www.tekura.school.nz) and the Regional Health Schools, which cater to students who are in hospitals or convalescing at home.
Availability of blended learning options to students	Blended learning options are available to some students. There are 20,000 students enrolled with Te Kura but only a small group of these are fully online. The VLN students number less than 1,000 across all the schools involved, but these are fully online. The total number of students in New Zealand schools is 750,000.
Student Information	
How many students participate in online learning?	No answer
Geographic location of students	Rural and students attending small schools

Rational for the use of online learning	Online learning provides more options for rural students, provides courses not available at students' assigned schools (such as specialized courses, courses unavailable due to a teacher shortage, etc.), provides courses for medically homebound students, provides students with options when they have scheduling conflicts, provides options for students who travel (such as athletes, actors, etc.), and provides more course options for gifted students and those taking advanced or college-preparatory courses.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Local schools, regional centers, universities, and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Teachers within schools, universities, or institutions of higher education Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	Most of the providers of online courses would claim a level of quality control, but there are no national quality standards that guide this.
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students, lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online), high costs of online course development, and lack of Internet access and technology for students
Who pays for online learning courses?	National government, students/parents National government pays for courses through their funding for schools and their direct funding of Te Kura and the regional health schools.

Funding	
Funding Model	No answer
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	iPad, tablet computer, netbook computer, laptop, desktop computer New Zealand students will use whatever device is available to them to access the online learning environments (LMSs). The technologies listed above are simply the endpoint connection devices. In New Zealand the emphasis is more on the mix of synchronous and asynchronous technologies, with a big use being made of both desktop and bureau-style video conferencing technologies, plus an increasing use of Web-conferencing tools.
What is the rate of growth for online learning in your country over the past 10 years?	No actual data is available, but growth has been increasing slowly. New Zealand is beginning the roll-out of fiber networks, with more and more urban schools becoming involved.

Summary

At a political level, there has been a lack of vision and leadership.

A small number of private providers have programs available (http://www.learnz.org.nz), but they are relatively small in the scale of things.

NORTH AMERICA

Canada (British Columbia)

Summary: Education is controlled at the provincial/territorial level in Canada. As such, each of the thirteen provinces and territories have different types of regulation and different levels of activity when it comes to K-12 online learning. Descriptions of each of these provincial and territorial regimes can be found in the annual *State of the Nation: K-12 Online Learning in Canada* report that has been published by iNACOL each year since 2008. In this volume, we focus the Canadian information on the province of British Columbia as the province that contains both the most specific regulations for and the highest levels of participation in K-12 online learning.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online schools can deliver complete programs to students not attending other schools, or individual courses to students attending secondary schools. Online learning options are available to all students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	In British Columbia, in 2010–2011, about 71,000 individual students; about 12% of the student population
Geographic location of students	Rural, suburban, and urban students, including students attending small and large schools
Rational for the use of online learning	To provide more course options for rural students, to provide courses not available at students' assigned schools, for medically homebound students, for credit recovery, for students with scheduling conflicts, for students who work to support their families, for students with special needs, for students who travel, for gifted students, and students working toward college-preparatory credits
Teacher Training	
Are there special training requirements for teachers to teach online?	No answer
Who trains teachers in the use of online learning resources for students?	Local schools, universities, and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Local government and teachers within schools
Are there quality standards for online teaching and/or online courses?	No. There are standards for program delivery and for content: http://www.bced.gov.bc.ca/dist_learning/docs/dl_standards.pdf; http://www.bced.gov.bc.ca/dist_learning/docs/digital_learning_standards.pdf; and quality standards for online courses: http://www.bced.gov.bc.ca/dist_learning/docs/digital_learning_standards.pdf.

What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students, lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online), high costs of online course development
Who pays for online learning courses?	The question is unclear; however, if you mean purchasing/licensing/developing, the schools that deliver online courses pay for licenses to access courses or pay teachers to create courses. Students/parents are not allowed to pay for part of a free K–12 education program. If you mean program operating costs, the Ministry of Education provides public funding to public distributed learning schools to deliver courses. Independent/private distributed learning schools receive a proportion of public funding, depending on the school category.
Funding	
Funding Model	In British Columbia, it is generally assumed that K–9 public school students are in full programs, and schools are funded at one FTE/student, regardless of how the course is delivered. Students are counted at snapshots (three per year). For grades 10–12, funding is calculated based on the number of credits/courses taken. Eight full courses is considered one FTE, but students may be funded at less or more than one FTE based on course count. Students may be in classrooms, learning centers, or at home.
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	iPad, tablet computer, netbook computer, laptop, desktop computer
What is the rate of growth for online learning in your country over the past 10 years?	In British Columbia, we count from 2005, when the initial statistics became available. The growth of 3% of the population to 12% in that time equals 400%.
Summary	
Online learning is known locally as "distributed learning" and included in Ministry of Education Service Plan: http://www.bcbudget.gov.bc.ca/2011/sp/pdf/ministry/educ.pdf; there isn't a separately reported document for online learning. For a school district to operate a distributed learning school, it must have an agreement with the Ministry of Education. The agreement requires: In delivering all or part of an educational program by means of Distributed Learning, the Board will (a) employ only Educators who have prior experience or training in teaching using Distributed Learning methods; and (b) provide ongoing Distributed Learning-related training and professional development for Educators referred to in paragraph (a). Link to Agreement: http://www.bced.gov.bc.ca/dist_learning/docs/dist_learn_agmt.pdf	

El Salvador

Summary: There are currently no online or blended learning programs available in El Salvador. Money and an untrained teachers' union are stated as reasons for the resistance to online learning in public education.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rational for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	N/A
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
No other comments provided	

Mexico

Summary: Online learning in Mexico is growing rather rapidly due to the need for access to a quality education. In Mexico, there is a higher demand of those who want to enter high schools and colleges than there are spaces available. Online education is seen as a solution to giving access to a quality education to all Mexicans.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes. There are programs primarily for secondary schools (middle and high school).
Availability of online programs to students	Online learning options are available to all students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	It is estimated that over 200,000 students participate in online learning, which is about 10% of the student population in the country.
Geographic location of students	Rural, suburban, urban, and students attending small and large schools
Rationale for the use of online learning	Online learning provides more course options for rural students, courses not available to students, courses for medically homebound students, credit recovery options, and options for students with special needs, who support their families, who travel, who are gifted, who take advanced or college-preparatory courses, and who take college-level courses for credit.
Teacher Training	
Are there special training requirements for teachers to teach online?	There are no special training requirements.
Who trains teachers in the use of online learning resources for students?	Universities and colleges
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Universities or institutions of higher education and teachers within the schools
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	The lack of policy or policy barriers that limit access to online courses for students and the lack of funding for professional development and teacher training
Who pays for online learning courses?	National government

Funding	
Funding Model	No answer
Do private enterprises partner or participate in government-funded online learning programs?	Yes
What technologies are students using to access online and/or blended courses?	Mobile phone, smartphone, iPad, tablet computer, netbook computer, laptop, and desktop computer
What is the rate of growth for online learning in your country over the past 10 years?	Approximated at 15% per year
Summary	
No other comments provided	

SOUTH AMERICA

Argentina

Summary: A new program is placing three million netbooks in schools throughout the country by 2012.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	Since this type of blended learning plan is delivered by both national and local authorities, enrollments are still undefined. This is a brand new policy; however, almost 3.5 million primary students will be able to enjoy learning with netbooks in 2011–2012.
Geographic location of students	Suburban and urban students
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Regional centers
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	Private companies and local government
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students and lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online)
Who pays for online learning courses?	National and local governments; the programs are promoted by only governmental authorities.
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	No

What technologies are students using to access online and/or blended courses?	Netbooks
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
Public education authorities in Argentina not only have a master strategic plan for online learning, but also a netbook program that will provide three million netbooks to students across the country. See http://www.conectarigualdad.gob.ar/sobre-el-programa/evaluacion-y-seguimiento/http://www.chicos.edu.ar/ChicosEnRedasp/paginas/Pagina.asp?PaginaCRId=6	

Brazil

Summary: There is federal law prohibiting online learning at the primary and secondary levels; it states that teaching must be face-to-face. In addition, labor states that online learning is bound to dehumanize the process of learning and is likely to create antisocial and overindividualistic students who lack the social skills necessary to live harmoniously in society.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	Online learning options are not available to most students.
Availability of blended learning options to students	Blended learning options are not available to most students.
Student Information	
How many students participate in online learning?	None at the primary and secondary levels.
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	N/A
What are the primary obstacles to the growth of online learning in your country?	Federal laws prohibiting it at the primary and secondary levels
Who pays for online learning courses?	N/A

Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	It is not growing at the primary and secondary levels.
Summary	
Online learning initiatives on complementary, as well as in the post-graduate realm, are rapidly gaining ground. However, for undergraduates, the federal regulations are the same as for primary and secondary students.	

Bolivia

Summary: Scarce resources have prohibited public funding of online learning program development at the primary and secondary levels. At the university level, legislation is needed to permit diplomas to be given to students that complete courses online. Currently that does not exist.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	No
Availability of online programs to students	N/A
Availability of blended learning options to students	N/A
Student Information	
How many students participate in online learning?	N/A
Geographic location of students	N/A
Rationale for the use of online learning	N/A
Teacher Training	
Are there special training requirements for teachers to teach online?	N/A
Who trains teachers in the use of online learning resources for students?	N/A
Does the government have licensing requirements or require a special credential to teach online?	N/A
Online Content and Courses	
Who develops online content and courses?	N/A
Are there quality standards for online teaching and/or online courses?	No

What are the primary obstacles to the growth of online learning in your country?	Although in the last five years the Bolivia's treasury has incremented its budget, the public funds used in education mainly end up in the current spending, such as wages and salaries to teachers. Little is left to equip classrooms and/or develop online learning programs. In addition, according to the Global Competitiveness Report 2010–2011, Bolivia ranks 121 out of 139 countries in having Internet access in schools. It is most likely that the few schools that do have Internet access are private.
Who pays for online learning courses?	N/A
Funding	
Funding Model	N/A
Do private enterprises partner or participate in government-funded online learning programs?	N/A
What technologies are students using to access online and/or blended courses?	N/A
What is the rate of growth for online learning in your country over the past 10 years?	N/A
Summary	
Due to absenteeism during the AH1N1 influenza outbreak, certain private schools such as Colegio Marista (http://www.colmarista-scz.org), Colegio Aleman (http://www.colegioaleman-santacruz.edu.bo) , Colegio Franco Boliviano (http://www.icefranco.net) and others developed their own websites—"virtual classrooms" where teachers uploaded their classwork and assignments, and students at home downloaded them and then sent in their work to teachers. However, this did not happen in public schools.	

Peru

Summary: Online learning is only currently available at 1.4% of all public schools.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to some students.
Student Information	
How many students participate in online learning?	The government provides online learning to 1.4% of all public schools. The number increases if online learning provided by parents and private individuals is considered.
Geographic location of students	Urban students, including students attending large schools and those who have scheduling conflicts
Rationale for the use of online learning	To provide supplemental lessons and homework

Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Some private companies are awarded the opportunity by auction to train teachers. The respondent explains that companies are elected with no transparency, so sometimes the training is not as effective.
Does the government have licensing requirements or require a special credential to teach online?	No
Online Content and Courses	
Who develops online content and courses?	National government Local government
Are there quality standards for online teaching and/or online courses?	No
What are the primary obstacles to the growth of online learning in your country?	Lack of policy or policy barriers that limit access to online courses for students Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) High costs of online course development Lack of Internet access and technology for students
Who pays for online learning courses?	National government Students Parents
Funding	
Funding Model	Funding is calculated by the number of students registered and the number of teachers and teaching material that are needed prior to the start of the school year.
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	Laptops Desktop computers
What is the rate of growth for online learning in your country over the past 10 years?	60%. This is mainly because the Internet is not available in all areas.

Summary

There is no real concern for the opportunity and resources that online learning provides. There is no knowledge about its importance or benefits. The government is concentrated on education in general except for recent reforms; however, these reforms are not enough yet and do not include online learning. There are some small programs available in some private schools in Lima, but these programs are few. There is a trend to increase online learning in Peru, which is mainly moved by the private sector, parents, and students themselves. There are many Internet cabins in streets where urban students are able to have access to the Internet, which they do not have at their schools. The government has tried to proceed with an education reform; however, very few have been forced to implement online learning, especially in rural areas where it is nonexistent. There is a program called Huascaran Plan, which is devoted to integrating information and communications technologies (ICT) into the Peruvian educational system, in order to improve the quality of education, expand coverage, and reach more people. There is another program called ESCALE, which uses online information for teachers and officers to obtain statistics about education in Peru. Recently, a program was created called One Laptop Per Child, which is devoted to improving public primary education. This included manuals for teachers and the possibility for online learning where there is a wireless connection. For more information: see

Huascaran Plan: http://www.minedu.gob.pe/huascaran/ ESCALE: http://escale.minedu.gob.pe/inicio

One Laptop Per Child: http://www.perueduca.edu.pe/olpc/OLPC_Home.html

Uruguay

Summary: One Laptop Per Child, or OLPC, has been applied to primary school students since 2007. While a very good initiative, it stays rather isolated from other policy decisions. Distribution of laptops to secondary school students has been initiated this year.

Program Background	
Are government-funded online or blended learning programs available for any primary and secondary education students?	Yes
Availability of online programs to students	Online learning options are available to some students.
Availability of blended learning options to students	Blended learning options are available to most students.
Student Information	
How many students participate in online learning?	Very few students are participating in "pure" online learning. But up to 80% of primary school pupils and up to 20% of secondary school pupils are participating in blended learning.
Geographic location of students	Rural, suburban, and urban students, as well as students in small and large schools
Rationale for the use of online learning	OLPC is not providing alternative courses but pedagogical resources and new ways of work that are complementary to traditional options.
Teacher Training	
Are there special training requirements for teachers to teach online?	No
Who trains teachers in the use of online learning resources for students?	Regional centers
Does the government have licensing requirements or require a special credential to teach online?	No

Online Content and Courses	
Who develops online content and courses?	National government Open education resources are available (content and learning materials funded by non-governmental organizations or foundations and provided for sharing and reusing)
Are there quality standards for online teaching and/or online courses?	Standards for quality online teaching – Yes Standards for quality online courses – No
What are the primary obstacles to the growth of online learning in your country?	Lack of funding for professional development and teacher training (resulting in shortages of qualified instructors trained to teach online) The main obstacle is lack of interest and ideological barriers in a significant proportion of teachers.
Who pays for online learning courses?	National government Students/parents Private education students must pay for their laptops. Public education students receive laptops for free.
Funding	
Funding Model	The country calculates a school's funding based only on how long students are in a physical classroom setting, otherwise known as "seat-time."
Do private enterprises partner or participate in government-funded online learning programs?	No
What technologies are students using to access online and/or blended courses?	Laptops
What is the rate of growth for online learning in your country over the past 10 years?	In primary schools, 0 to up to 80%. In secondary schools, 0 to up to 20%.

Summary

The program One Laptop Per Child, or OLPC, has been applied to primary school students since 2007. The OLPC program is a very good initiative, but it stays rather isolated from other policy decisions. Distribution of laptops to secondary school students has been initiated this year. More than 350,000 laptops are today in the hands of students and their teachers. Software is also produced for educational purposes. The OLPC program is constantly evaluated. Reports are available to the public (see http://www.ceibal.org.uy/). Laptops are used to evaluate learning in math and languages, but But links between the OLPC program and other actions of the political authorities are rather thin.

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