Web-based Corporate Learning in Siberia: Reflections on an American Model

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ABSTRACT
Educational theorists have long associated distance education with self-study. In recent years, however, increasingly advanced technologies have made it possible to conduct distance education in ways that give primacy to other aspects of learning. Simonson et al. (1999) have developed the notion that these new approaches may have a particular relationship to US cultural and pedagogical traditions. They argue that new classroom emulation approaches are the result not only of advances in technology but also of American educators beginning to urge that we use technology to conduct distance education in ways that retain traditional aspects of American education. If classroom emulation programs are particularly reflective of the America, it becomes worthwhile to examine what directions others take when they develop distance learning programs. Toward that end, this paper examines Web-based distance education programs developed for corporate training in the Irkutsk Region of Siberia. Particular attention is given to ways in which culture and technology are shaping corporate training.

Keywords
Classroom emulation, Corporate training, Distance learning, Distance education, International corporate training, Russian corporate training, Web-based education, Web-based learning

Introduction
Educational theorists have long associated distance education with processes of self-study, stressing learner independence as opposed to learning through participation with classmates and teachers (Keegen, 1986; Moore, 1994). In recent years, however, increasingly advanced technologies have made it possible to conduct distance education in ways that give primacy to other aspects of learning. Simonson, Schlosser, and Hanson (1999) have developed the notion that these new forms of distance education may have a particularly American aspect. They argue that new classroom emulation approaches to distance education are the result not only of advances in technology but also of significant numbers of American educators beginning to urge that we use that technology to conduct distance education in ways that retain traditional aspects of American education.

Distance learning opportunities are expanding dramatically worldwide (Kaufman and Watkins, 2000), even though a digital divide continues to result in an uneven distribution of those opportunities globally as well as in the US (Gladieux & Swail, 1999). If classroom emulation programs are particularly American in their nature, it becomes worthwhile to examine what directions others take when they develop distance learning programs using increasingly advanced technologies. Toward that end, this paper considers technical and cultural factors affecting Web-based distance education programs developed for corporate training in the Irkutsk Oblast (Region) of Siberia.

Background
The City of Irkutsk is the seat of regional government and a long-established cultural and educational center for the Irkutsk Oblast. Many of the cities within the Irkutsk Oblast were developed under the former Soviet Union to fill specific roles in the national economy. For example, the City of Sayansk is home to Sayansk Chemprom, a company that manufactures PVC and PVC products such as pipe and linoleum while the City of Bratsk is home to a large hydroelectric plant as well as a wood products company that harvests and processes wood from the surrounding forests. Business people throughout the region are accustomed to travelling to the City of Irkutsk to make major purchases, to interact with government, and to conduct business. There are no major universities outside of the City of Irkutsk. Given this environment, Irkutsk State University (ISU) is well placed to provide training to corporate clients throughout the region through its Baikal Institute of Business and International Management (BIBIM).
Beginning In 1991, these client corporations provided core funding for a joint bachelor's degree program in Business conducted by BIBIM and University of Maryland University College (UMUC). In that program, students took their first two years of university from ISU in Russian and their final two years in English from UMUC faculty stationed in Irkutsk. The majority of graduates from this program are now employed locally by Russian businesses.

As the Web became available, BIBIM and UMUC began to look for ways to use it to conduct corporate training within the Oblast. Specifically, BIBIM hoped that the Web would allow geographically dispersed managers to participate in training courses together and would make it possible to incorporate the resources of the Web into corporate training.

**The problem**

In the mid-1990's a fundamental question concerned whether Web-delivered learning intended to serve multiple sites outside of the US should be based in the US or in the learners' countries. We found that corporate learning in Russia via the Web required at least three elements that discouraged the use of US-based systems: teaching must take place in the Russian language, connectivity between Russia and the US must be reliable, and the instruction must be culturally accessible to Russian learners. For Russia-based learning systems, problems included lack of technology that could be purchased and maintained in Russia as well as lack of experience with classroom emulation via the Web. Both US-based and Russia-based systems faced poor connectivity to corporate sites outside of major cities.

One approach to Web-based learning in Russia is to use US-based systems intended for the English language to deliver instruction in the Russian language. In one example, a US university has used this approach with learners at partner universities in Russia. Courses were taught in Russian by Russian faculty from those universities who were resident at the US university on faculty exchanges.

This approach has the advantages of drawing upon the IT resources of the US university and of allowing Russian and American faculty to work together to teach and develop new courses. Disadvantages include, first, limited opportunities for Russians to adapt courses and develop new ones, since both the underlying code and the administrative text will be in English. Second, it is difficult to transfer hosting to Russian sites, since US software is likely to be expensive to acquire and operate there. A third consideration with US-based systems concerns the quality of connectivity between Russia and the US. The US university in the above example overcame this by downloading content to a server in Russia. A fourth issue, which was not a problem in this example but has surfaced elsewhere, concerns on-site support for Web-based learning. In any location where technology resources expensive and in short supply, competing demands will necessarily make it difficult for learners to obtain easy access.

One approach to overcoming inadequate connectivity is to mix several delivery mechanisms. In a third example, a US university delivers instruction at a number of Russian sites using CD-ROMs coupled with e-mail and periodic instructor visits. This allows for a rich mix of instruction with the immediacy of e-mail contact with instructors and among students.

**Implementation of the project**

With support from the US Government, BIBIM and UMUC began to explore Web-based corporate training options in 1997. This led to the successful enrollment of one Russian manager in a US-based UMUC Web course in the spring of 1998. That summer, a Russian team visited UMUC for training in information technology, Web-based instructional delivery and support, and marketing. During the following academic year, the team provided technological and instructional support for Web delivery of several US-based UMUC management courses to thirty Russian managers and five ISU faculty members.

The team had initially planned to develop Russian-language corporate learning courses using UMUC’s learning software, hosted on UMUC servers in the US, Japan, or Germany. During the summer of 1998, the teams explored how such an approach might work, and prepared to begin implementation of this approach the following summer.
Unfortunately, economic conditions in Russia during that period did not allow BIBIM to proceed in this way. However, they were able to obtain learning software developed in Russia and to host that software on a server based in Irkutsk. Unspent grant funds allowed the project team along with additional Russian course development teams—composed of professionals in content, course design, and technical design—to undertake the development of 10 Russian-language training modules. In this phase, BIBIM exercised control over all aspects of course design and development.

Although the team had planned that learners would access the Web using computers at BIBIM, some early participants studied on home computers via public Internet Service Providers. By the second phase of the project, when the team was beginning to develop training modules in Russian, it was clear that BIBIM would be able to offer Web-based courses to corporations within the city.

However, the Web-based courses taught in the Russian language were intended to serve managers located throughout the Irkutsk Oblast. It soon became clear that constraints regarding bandwidths and Web accessibility outside the City of Irkutsk made it unreasonable to attempt to deliver sophisticated multimedia instruction throughout the Oblast totally via the Web. For that reason, the team developed each of the ten training courses in two forms: a form delivered via CD-ROM for immediate use in remote regions and a form delivered via the Web for immediate use in limited urban areas and for future use when accessibility and bandwidths would (predictably) improve. To assist in the development process, BIBIM brought several major Oblast corporations together as members of a Corporate University Consortium. The training directors of these companies helped to shape the creation and development of the ten Russian-language training courses. In addition, Consortium members pay fees to BIBIM for enrolling their employees in these courses.

Two indications of the rapid technological changes occurring in Russia became evident mid-year. First, more individuals gained access to Web-enabled computers in their homes or places of work and, second, the Web infrastructure improved within the Irkutsk Oblast. As these changes occurred, large Russian corporations in the Oblast began to express interest in Web-based delivery of BIBIM’s professional development courses that had, up to that time, been delivered on site or via CD-ROM.

BIBIM now offers these ten courses in conjunction with other courses in several multiple-course training formats.

Second university degree programs in management (2 years).

An eight-month training program in strategic management taught partly by BIBIM and partly by the participating corporations using in-house resources.

Short-term seminars that are customized for enterprises in management, economics, finance, human resource management, marketing, corporate management, restructuring, and other areas.

Executive Seminars for regional leaders. (These experiences for senior executives have had a direct effect on enrollments in other BIBIM training programs, as senior executives learn the value that training can bring and begin to provide opportunities for other members of their work forces.)

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Type of activity</th>
<th>Location</th>
<th>Total employees</th>
<th>Employees who have taken BIBIM courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irkutsk Energy Corp.</td>
<td>Power utility</td>
<td>Irkutsk Oblast (various locations)</td>
<td>10,000</td>
<td>189</td>
</tr>
<tr>
<td>Irkutsk Aircraft Corporation</td>
<td>aircraft construction</td>
<td>Irkutsk</td>
<td>10,000</td>
<td>121</td>
</tr>
<tr>
<td>Usoliekhimprom Corp.</td>
<td>Chemical manufacturing</td>
<td>Usolie-Sibirskoe</td>
<td>1,000</td>
<td>106</td>
</tr>
<tr>
<td>Ust-Ilimsk Timber Co.</td>
<td>Wood products</td>
<td>Ust-Ilimsk</td>
<td>13,000</td>
<td>99</td>
</tr>
<tr>
<td>Sayanskhimprom Corp.</td>
<td>Chemical manufacturing</td>
<td>Sayansk</td>
<td>1,500</td>
<td>73</td>
</tr>
<tr>
<td>Irkutskcabel Corp.</td>
<td>Manufacture electric cable</td>
<td>Shelekhov</td>
<td>1,000</td>
<td>31</td>
</tr>
<tr>
<td>East Siberian Railroad</td>
<td>Railroad</td>
<td>Irkutsk Oblast</td>
<td>10,000</td>
<td>28</td>
</tr>
</tbody>
</table>
**Table 1. Participation in BIBIM Distance Learning Courses by Consortium Members**

<table>
<thead>
<tr>
<th>Enterprise Name</th>
<th>Activity</th>
<th>Location</th>
<th>Enrollments</th>
<th>Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railway Corp.</td>
<td>(various locations)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baikal Pulp Mill Corp.</td>
<td>Cellulose manufacturing</td>
<td>Baikalsk</td>
<td>2,000</td>
<td>12</td>
</tr>
<tr>
<td>Belorechenskoe Joint-stock Co.</td>
<td>Poultry manufacturing</td>
<td>Belorechenskiy</td>
<td>1,000</td>
<td>4</td>
</tr>
<tr>
<td>Bratsk Timber Co.</td>
<td>Wood products</td>
<td>Bratsk</td>
<td>6,000</td>
<td>2</td>
</tr>
<tr>
<td>*Irkutsk Aluminum Plant</td>
<td></td>
<td>Irkutsk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Bratsk Aluminum Plant</td>
<td></td>
<td>Bratsk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Angarsk Oil Chemical Corp.</td>
<td></td>
<td>Angarsk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*These enterprises have expressed their intention to become members)

**Discussion**

1. The Russian team chose to incorporate marketing into course development. Marketing to corporations and government agencies has been, and continues to be, accomplished largely through the Corporate University Consortium augmented by one-on-one presentations to key decision-makers. A result of this integration of marketing into the course development process has been that BIBIM has succeeded in creating course offerings that fit the perceived needs of the Consortium members. This has resulted in an income stream sufficient to conduct and upgrade the courses. It also provides useful information about Russian corporate training preferences, since the client corporations, in large part, shaped the content and delivery of the courses.

2. Although distance learning is commonly seen as a way to overcome physical distances between teacher and student, approximately half of BIBIM’s adult Web and CD learners are based in the City of Irkutsk—people who could come to the university for face-to-face classes but prefer the Web and/or CD learning options. This mirrors a specific characteristic of the development of Web-based learning centers and, in fact, of e-business generally in the US—at first you draw clients away from your brick and mortar sites.

As an example of this, UMUC is a large US cyber university, with approximately 60,000 Web enrollments during the 2000-01 academic year. The largest number of these were within the State of Maryland, by learners who could have driven to the university and taken face-to-face classes. This is common, and mirrors the general retail sales universe in which, for example, The Gap opens a store on the Web and immediately draws customers away from its physical stores. Common wisdom is that you have to allow this to happen because if you do not, someone else—Old Navy—will open a Web store and draw your customers away from your physical stores anyway. It is worth noting, and has not, to my knowledge been cited elsewhere, that this same phenomenon appears to occur in the Russian environment.

3. This suggests that a general principle underlying Web adoption appears to apply in both countries—as people become comfortable with the Web, they will use it. In both Russia and the U.S., comfort with the Web depends upon access. In both countries, quality of access varies from place to place. For example, when the ten courses were completed, connectivity in Sayansk was very good while in Ulan Ude, it was apparently nonexistent; in Bratsk it varied greatly depending upon location within the City. Connectivity in Irkutsk was comparatively good, but variable. In preference to dial-up modems, it was increasingly common to find businesses and universities with their own lines directly to their providers. BIBIM, for example, had its own server and a fiberoptic line to its provider. Sayansk had recently installed a line and new hardware and software that gave potentially full business Web contact within the City. A second element affecting access, common to both countries, is a digital divide related to social and economic factors. In the context of corporate training, this digital divide benefits large, profitable companies at the expense of smaller companies and those with fewer resources. It also benefits more affluent individuals seeking professional development opportunities at the expense of their less fortunate counterparts.

4. These Russian companies have internal training units that are conceptually similar to, and operate in much the same way as, their US counterparts. In both cases, these units use training to increase profitability through a combination of internally produced training and training purchased from outside vendors including universities. In discussions with heads of corporate training departments, identification of areas of training and ways in which that training is to take place mirror closely discussions that occur in an American context. For example, interest
of the Russian companies in multiple-course packaging reflects UMUC’s experiences with corporate preferences in other countries.

5. Fundamental to BIBIM’s approach is the notion that content, once put into digital form, can be exploited in a variety of ways, including ways that may not yet be apparent. An example is the initial placement of content into a combined CD ROM and Web format that is now being followed by integration of these two components as band widths improve.

6. BIBIM has included a variety of instructional elements, including significant dialogue among students and between students and instructors. Adult learners in the program have indicated that their preference for Web-based instruction is, in significant part, based upon the ability of the Web to provide for this dialogue as opposed to strict self-study.

Conclusion

In this project, the Russian team was able to shape instructional development and delivery with the primary goal of producing distance education courses of value to their targeted Russian learners and to the heads of participating corporate training departments. Many similarities with US experience were apparent. In both cases, usefulness, timeliness, and instructional quality were of prime concern.

In considering similarities, it is useful to ask whether the nature of large competitive enterprises is such that large Russian companies increasingly operate on the basis of an international standard that American companies necessarily share. If so, similarities between Russian and American companies may tend to result in similar Web-based delivery choices.

In the early 1990's, I conducted seminars for Russian managers in which I showed a film called "Beyond the Factory Walls" (Lawrence & Vlachoutsicos, 1990), which contains scenes that illustrate Soviet factory management and labor relations. Following the film, I would ask participants whether they found the portrayal to be a valid one. A consistent reply was that, "It used to be that way but it isn't that way any more." The sense was of an openness to future change that seems reflected in BIBIM's approach of putting training content into digital form as a way of allowing it to be used no matter what new possibilities for training may arise in future. That sense of preparing for a changing future seems to contrast with US approaches, and may be the key element that seems to emerge from the experiences of this initiative.

This experience has been of value in a number of ways. Not only in the US and Russia, but throughout the world, culture and changing technology are shaping corporate training in environments that are in many ways unique. Comparison of the approaches that emerge offers a rich opportunity to learn more about how all of us approach issues related to learning and work.

References


