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Computer Technology for the Benefit of the Rule of Law: Communication and Research

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Carl A. Yirka

Abstract

This Essay suggests a number of ways in which rule of law partners in the United States and abroad with modest technical background might more easily communicate, plan, coordinate, and research joint projects. Without the new computer technologies it would be very difficult to conduct rule of law projects between partners in the United States and Russia. Recent advances in technologies now make communication with colleagues across the world by computer easier than ever.

COMPUTER TECHNOLOGY FOR THE BENEFIT OF THE RULE OF LAW: COMMUNICATION AND RESEARCH

*Carl A. Yirka**

INTRODUCTION

Without the new computer technologies it would be very difficult to conduct rule of law projects¹ between partners in the United States and Russia. Travel to Russia, outside of Moscow or St. Petersburg, is still time consuming and complex. Even with good overseas airplane connections, getting from the United States to many outlying areas of Russia still requires the ubiquitous overnight train trip, and the journey takes the better part of two days.

Historically, imperfect international telephone connections to Russia have made telephone and telefax poor methods of communicating with Russian colleagues. Mail service in Russia was never expeditious and in recent times has further deteriorated. Delivery services such as Federal Express and DHL do exist in Russia, but they charge rates that prove to be prohibitive. Recent advances in technologies now make communication with colleagues across the world by computer easier than ever.

Many rule of law partnership projects will require research in U.S. and foreign law, both of which are greatly facilitated by the new computer technologies. In the era of solely book-based research, little primary literature was easily available to partners

* Associate Professor and Director of the Julien and Virginia Cornell Library, Vermont Law School, South Royalton, Vermont; Project Director, Vermont Law School-Petrozavodsk State University Law Faculty Partnership. Readers who would like an electronic version of this Essay, for ease of following the links, may request a copy from the author by e-mail: cyirka@vermontlaw.edu. Much of this Essay was written during a three-and-one-half month visit to Petrozavodsk, Karelia, Russia from February through May, 1999. My thanks to Justice John Dooley III and to Mark Oettinger, without whom, after a 25 year hiatus, I probably would not have taken a renewed interest in things Russian; to Vermont Law School Dean L. Kinvin Wroth, who graciously accommodated my presence in Petrozavodsk in Spring 1999; to Diane Frake, who served as Library Director in my absence; and finally to my wife, Micki Colbeck, who let me dream my dreams.

1. Rule of law projects are intended to assist countries that are attempting to develop a system in which law, rather than the will of individuals or a small group of people, forms the basis of human interaction, conduct, and business.

working on international projects. This Essay suggests a number of ways in which rule of law partners in the United States and abroad with modest technical background might more easily communicate, plan, coordinate, and research joint projects.

I. BACKGROUND OF VERMONT-KARELIA RULE OF LAW

A number of years ago, in an essay published in the *American Scholar*, Jeremy Bernstein wrote about one of the failures of U.S. scholarship. He opined that writers had developed the common practice of selecting two seemingly unrelated topics and comparing them, only to determine that they have nothing in common. It would not have been too many years ago that an essay purporting to discuss the interrelationship between modern computer and communication technologies and international rule of law projects would have been accused of the same deficiency. Only a few years ago, rule of law projects made far greater use of the technologies of the first half of the twentieth century than those of the second half. In 1992, when I first began to work on projects in this area, the most common form of communication between individuals in Vermont and their Russian partners was by fax and an occasional phone call.

My expertise in international rule of law is limited to projects with partners in the Republic of Karelia and to a number of programs in northwest Russia that have developed out of the relationship between Vermont and Karelia. Karelia is one of eighty-nine subjects of the Russian Federation.² Few Americans know much about Karelia; it is a republic within Russia, about the size of the state of Florida, with a population of 800,000. Its capital and largest city (with a population of about 300,000) is Petrozavodsk, located on the western edge of Lake Onega, the second largest lake in Europe. Karelia borders Finland to the west, the Murmansk Republic to the north, the Archangel Republic to the east, the Vologda Republic to the south-

2. Americans familiar solely with the neat breakdown of 50 relatively similar sized states within our own United States of America may find surprising the distribution of subjects into geographically large republics, oblasts, krais, autonomous areas, and even two cities. The 89 subjects of the Russian Federation include 21 Republics, 6 Krai, 49 Oblasts, 2 Federal cities (Moscow and Saint-Petersburg), 1 autonomous Oblast, and 10 autonomous Okrugs. See *Subjects of the Russian Federation* (visited Apr. 5, 1999) <<http://www.fccland.ru/maprus/subj-e.htm>> (on file with the *Fordham International Law Journal*) (listing subjects of Russian Federation).

east, and Leningrad Oblast and the city of St. Petersburg to the southwest. Historically, the border between Finland and Russia has fluctuated from east to west so that large parts of the present Karelian Republic were at one time part of Finland. Thus, Karelia has a mixed population of Russians, Finns, Karelians, and a small native population of Veps.

Ten years ago, Madeline Kunin, then Governor of Vermont, established a sister state relationship with the Karelian Republic. A variety of exchanges have taken place between Vermont and Karelia over the past decade, including exchanges of school children, teachers, and doctors. A Vermont-Karelia Sister State Committee, appointed by the Governor of Vermont and currently chaired by a Burlington attorney, Mark Oettinger, coordinates sister state activities. One of the more narrowly focused relationships developed in the area of law, and thus Vermont-Karelia Rule of Law grew. Since the early part of the 1990s, Vermont-Karelia Rule of Law has developed a scheme of having educational seminars twice a year in Petrozavodsk on topics selected by Karelian lawyers and members of the Union of Jurists of the Republic of Karelia. Lawyers from Vermont join Karelian lawyers and relevant Russian experts from Moscow in two-day conferences on topics such as land title registration and training for jury trials. Most of this work has been funded through grants from the United States Agency for International Development ("USAID"). In the past few years, with USAID funding, Vermont-Karelia Rule of Law has helped establish a number of other partnerships between the legal communities of Maryland and Leningrad Oblast, Maine and Archangel, Rochester and Novgorod, and New Hampshire and Vologda.

I was the first Vermont Law School faculty member to join Vermont-Karelia Rule of Law and through my participation interest grew on the part of other members. A number of other Vermont Law School faculty have visited Petrozavodsk, participated in conferences, and taught at the Petrozavodsk State University Law Faculty ("PSULF"). Prof. James May, Director of the South Royalton Legal Clinic, helped establish the first legal clinic in Russia at Petrozavodsk State University ("PSU or "University"), a concept that has found hospitable reception at a number of law faculties throughout Russia and the Newly Independent States. Prof. Steve Dycus lectured at PSULF for eight weeks in 1997. Profs. Oliver Goodenough, Linda Smiddy, and

Patrick Parenteau have taught at PSULF for shorter periods. In August 1998, Vermont Law School received a grant³ to fund partnership activities over a three-year period. The goal of this grant is to help the development of the comparative and environmental law curriculum, to provide further assistance for the legal clinic and the library, to provide administrative assistance, and to create distance education capabilities.

II. *COMPUTER COMMUNICATION AND THE RULE OF LAW*

A. *E-Mail*

One of my goals during my first visit to Russia in June 1993 was the modest attempt to set up dial-up e-mail access from the office of the Minister of Justice (or "Ministry") of the Republic of Karelia. Like many other first time visitors, I came to Russia with expectations that proved to be false. I expected that a 2400-baud modem would be easily purchased in Petrozavodsk. Modems, it turned out, were available in Petrozavodsk. A 2400-baud modem cost about US\$800, four or five times what they sold for in the United States at that time. We were able to obtain a modem from Moscow for perhaps half that price. Overnight delivery, I was told, would be arranged by taking the modem to the train station. One of the honest looking elderly ladies who serves tea on the overnight trains would be approached and asked whether she would be willing to put the package under her seat and deliver it to a person meeting the train in Petrozavodsk. I never discovered the cost of this method of delivery.

Like every high-level Russian administrator's office that I have seen since, the Minister of Justice's office was a long and thin rectangle. Walking in through a double door, one could see the Minister's desk at the far end of the room. On one side of the room, beneath the windows, was a long table that could seat perhaps twenty without congestion. The Minister's desk had a row of non-matching telephones on one side, and placed at a perpendicular angle to the desk was a small table where two visitors could sit and have access to table space for writing while talking to the Minister. Impressive as the room was in all these ways, planners had failed to anticipate the need for electrical

3. The grant is a United States Information Agency, Newly Independent States College and University Partnership Grant.

outlets. So far as I could discover, the room contained only a single wall outlet.

I have the distinct vision in my mind of a handful of us standing in a circle in the office. I could speak only English and knew a little about setting up e-mail on a new computer. A computer specialist of the Ministry spoke only Russian, but understood the Russian telephone system. A third person present was Deputy Minister in charge of administration in that office. He knew Russian, of course, but nothing about computers or modems. A fourth, the computer expert from the local university, knew a great deal about computers, but had no English skills. Someone else in the room spoke English and Russian, but knew nothing about computers. Still others in the room had some other combination of skills.

Setting up e-mail consisted of communication in a manner most closely related to the children's game called telephone, in which one person communicates a complete sentence into the ear of the closest neighbor, who in turn passes the sentence on to the next, and so on until everyone has heard. The fun part of the children's game happens when the last person in the telephone chain repeats the sentence that has made the complete round to the first person. Whenever I have seen this game played, even by people acting in good faith, the final repeat of the communication has little in common with the first statement. Our communication on that day had about as much success as the children's game has.

E-mail service in the Minister's office was finally connected after I left Petrozavodsk. The passage of a half of a decade has seen much progress in the area of computer communication, though these days Russians might have a difficult time remembering it.⁴ Whereas six years ago it was rare to find a photocopy machine, much less a computer, in the average Russian office, these technologies are now quite common. Like other scarce items, office technology is treated quite delicately in Russia, unlike technology in the United States, where computers,

4. When the ruble dropped in August 1998 from six rubles to the U.S. dollar to the current mid-March 1999 rate of 23 rubles to the U.S. dollar, life in Russia changed dramatically. As one example, the cost of a modest computer in the United States may not have changed much since last August, say about US\$1000. In Russia, the same computer that sold for 6000 rubles last summer now would cost 23,000 rubles—all this while salaries have remained stagnant.

photocopiers, and other office equipment are seen as expendable. Since 1993, thanks to the work of the PSU computer center, e-mail became generally available both on campus and throughout Petrozavodsk and Karelia. The Regional Center for New Information Technologies at PSU is one of fourteen regional centers throughout Russia and serves a vast area of Northern Russia, including the Archangel, Murmansk, and Vologda regions and the Republics of Karelia and Komi.⁵ PSU is also the beneficiary of the Soros-funded Internet Centers where local citizens can access the Internet on computers for a fee of a few rubles per hour.⁶ The University provides dial up e-mail and Internet access at relatively modest costs. While other commercial providers, such as GlasNet, provide access throughout much of Russia, they contract at substantially higher rates.⁷ These rates, of course, are more than the monthly salary of many Russians. PSU rates are eight rubles per hour, with a discount for persons with an affiliation with the University.⁸ A technician from the University comes to your home to set up access—a service that Internet Service Providers in the United States would do well to emulate.

B. Listservs

Once e-mail access has been established between partners, it is a short step to the creation of an Internet discussion list, also called a listserv. The listserv is an e-mail method of sending the same message to a group of people who have signed up to receive these e-mails. In signing up for the list, list members show a common interest in one topic, and questions, comments, and discussions are intended to be limited to the topic of the list.

5. See *Regional Center of New Information Technologies* (visited Apr. 5, 1999) <http://petrsu.karelia.ru/psu/General/rcnit_e.html> (on file with the *Fordham International Law Journal*).

6. To access the Internet Center, see <<http://www.soros.karelia.ru/index.html>>.

7. GlasNet, <<http://www.GlasNet.ru>>, located in Moscow, provides dial-up Internet access from over 250 locations in Russia, which will be of particular interest to those who travel with a laptop within Russia. Rates for individuals signing up after September 1, 1998, are US\$30 for initial setup and a monthly fee of US\$14, which includes eight free hours of dial-in connection, one megabyte of disk space for mail storage on the GlasNet host, and two megabytes for a personal World Wide Web home page. For connection time above eight hours per month, rates vary depending upon the time of day, from no connection charge between 3:00 a.m. and 9:00 a.m. to US\$1.60 per hour between 6:00 p.m. and 3:00 a.m. Weekend rates are cheaper.

8. PSU rates of eight rubles per hour is about US\$.25 per hour at the exchange rate of mid-March 1999.

Information scientists have coined the term "the hidden college" to refer to the informal communication between peers, in order to distinguish it from published information transfer in books and journals. It is perhaps an obvious statement of life at the end of the twentieth century that much of the knowledge that we have comes from information discussion among colleagues. Academic institutions create such lists for organizations with which they are affiliated, often for a modest fee. Vermont-Karelia Rule of Law has established a listserv for its members with a local Vermont Internet service provider for US\$15 per month.

Lists may be moderated, where one person serves to keep the discussion "on list." While the current news of the day, say presidential impeachment, may be on everyone's mind, unless the list is devoted to the topic of impeachment, it is likely that such comments would be considered "off list." Other lists are self-moderated where the members of the list are expected to be self-policing regarding "off list" discussion. Some lists require a particular status for membership. One list that I have signed up for, for example, deals only with topics of interest to law library directors, and only librarians who are law library directors will be accepted for membership.

Listservs have two e-mail addresses, each with a unique function. One address is for administrative matters such as signing up to become a member of the list, signing off, and receiving the lists in an abbreviated "digest" form. The other e-mail address is the discussion address for sending e-mail to all the members of the list.

When signing up for listservs, users should not set an automatic e-mail reply message, such as those that say they will return to the office after vacation on a specific date. These messages will be sent as a reply to the discussion address and will be received by all members of the list. The true crisis may arise when two members of the list are using such automatic reply messages, which simply spool continually back and forth, sending copies to the entire membership of the list. It is more appropriate to send a message to the administrative address of the list "signing off" until returning from an extended time away.

Another common embarrassment for people new to listservs is to send a reply to what they thought was a personal message from a colleague that instead turns out to be a message from the

list. It is not difficult to imagine the embarrassing possibilities this situation can cause.

Listservs have proven to be an excellent method of receiving current information. They have provided a democratic sharing of information between both novices and experts who share a common interest. As no list member is required to respond to questions raised, novice members of the listserv often "lurk," simply reading the e-mails and not taking part in discussion. After novices have developed a bit of expertise, they may choose to begin to take part in these e-mail discussions.

Many listservs maintain archives of all the past e-mails that have been posted to that address. Sometimes these archives are merely the e-mails in chronological order; at other archives one can search for key words that might have been used in mails to the listserv. E-mail archives are often located at the World Wide Web site of the creator of the listerv. List archives serve as excellent resources to track the history of the list and the variety of discussions that have taken place. Writers who raise issues that had been discussed previously on the list can be referred to the archives.

C. Internet Chat Programs

Some exchange of information is time sensitive. E-mail and listserv transfers may be quick from the sender's point of view, but when does the information receiver actually check her e-mail? The time difference between partners at distant sites (eight hours for Vermont partners located in Petrozavodsk, Karelia, Russia) presents further issues. E-mail transfers of information across continents may end up being, at best, once-a-day transfers. E-mail sent at the end of a business day in Petrozavodsk usually reaches Vermont quickly, the morning of the same day. But by the time information is collected and responses sent, they might arrive after business has ended in Russia. Russian partners may retrieve their e-mail in the morning of the following day and the process of response, analysis, and reply begins again. One method of overcoming these slow transfers of information is to do real-time Internet discussions using an Internet relay chat program. Partners in Vermont and Karelia have had substantial success using ICQ, or I Seek You, a program

that can be easily downloaded from the Internet.⁹ ICQ can be used by anyone with network access or dial-up access through an Internet service provider. The program is also available by purchasing the user's manual, in which case the program is provided on a CD-ROM.¹⁰ Once installed, ICQ opens a small window in the corner of the computer screen. When partners have registered with each other, they can tell at a glance when partners at both distant locations are online or offline. Partners can send e-mail through ICQ and can initiate chat. The chat function opens up two windows (or more, depending on how many are chatting) on the computer screen and allows one person to type in one of the windows while his or her partner types in the other. Partners can then chat in real-time and texts of the chat can be saved for further reference in the buffer file for printing later as minutes of the meeting.¹¹ Computer files can also be transferred using ICQ.

Our partnership uses this program on an almost daily basis to discuss issues that need conversation rather than mere e-mail notification. It is easy to imagine how planning the format of an upcoming conference or discussion of travel plans might benefit from quick back and forth discussion of a variety of alternatives. A chat can be particularly productive when e-mail sent in advance of the chat can serve as an agenda for such an Internet meeting.

D. Internet Telephone

One further step in this communication continuum is Internet telephone. While intercontinental telephone calls have become cheaper over the years, all but the most crucial exchanges of information might still prove too expensive for non-profit partnerships. Like Internet chat, Internet telephone presumes network access or dial-up access. Many such programs exist, but perhaps the most common is Microsoft NetMeeting.¹² With access to a sound card and a microphone, NetMeeting can

9. To download ICQ, see <<http://www.mirabilis.com>>.

10. ICQ USER'S GUIDE (1998).

11. ICQ, or I Seek You, is an internet chat program that has Cyrillic fonts that enable bilingual partners to chat simultaneously, with each partner typing in his or her own language—one partner typing in Russian while the other types in English.

12. We have also experimented with varying success with VDO Phone, IRIS Phone, Internet Phone, Netspeak, WebPhone, and Net2Phone.

provide for instant transmission of information. NetMeeting contains its own chat program as well, which we have found quite useful. Internet traffic may be such that one side is able to transmit using Internet telephone at a quality comparable to telephone conversation, while transmissions in the other direction prove to be poor. The partner on the side with poor transmission may respond by chat rather than Internet telephone.

It is my experience that, beyond e-mail, many partners in rule of law projects have only limited knowledge of these technologies. People who do not use these technologies only begin to appreciate them once these technologies are available at their desk. Once partners have computer and Internet access at their office desks, the use of technologies increases and begins to make a difference in the manner in which rule of law projects can be run. It is only through the availability of these technologies at ones' fingertips that they begin to be used as everyday tools. An analogy to the use of the telephone may clarify this point. When the telephone was only available by traveling to the general store, it may have been used for special occasions, in matters of last resort, or life-and-death situations. Once the telephone became available for everyday use, it became a tool for productivity as well as for uses as mundane as asking one's spouse to bring home some milk, or announcing births and deaths. Partnerships work well only when partners can communicate easily and frequently.

III. *COMPUTER RESEARCH AND THE RULE OF LAW*

A second major use of computer technology is in the field of legal research. In the era before computerized databases and the Internet were available, hard copy resources were the mainstays of research. The task of researching the law of foreign countries often proved quite difficult. In addition, the text of foreign laws was not widely available in English translation. Many Americans working in this area had, and still have, insufficient language skills to do legal research in the foreign vernacular. Although small portions of foreign law were available in book form, book publishers rarely translated the full text of legal codes. Purchase of legal materials in the vernacular often proves expensive. All but the largest U.S. law libraries found the purchase of foreign legal materials to be prohibitively costly.

A typical research scenario for rule of law partnerships might entail the comparison of a U.S. statute and a Russian statute in a similar area of law. Research of this sort entails a number of steps that people might not be familiar with if their background is solely in U.S. law. To obtain the text of a Russian statute corresponding to a U.S. statute, some unique skills may be required. The language of the original text as well as the availability and quality of translation are important factors at this stage.

As a first step, it is necessary to obtain the text of the Russian statute. If the Russian partner has access to a Russian legal database, such as Kodeks,¹³ Garant,¹⁴ or Consultant,¹⁵ he or she can download the statute and send it to the U.S. partner as an e-mail attachment. Rambler, a Russian web site that tracks the popularity of Russian web sites in a variety of subjects, maintains a page with hyperlinks devoted to Russian legal web sites.¹⁶ Klever provides news about Russian legislation, in Russian.¹⁷

The attachments will have to be converted into Cyrillic text. A computer with access to Cyrillic fonts is necessary to convert the text. Computerized Russian language text is usually created as either Windows 1251 or KOI8 format, though occasionally texts are created in ISO 8895 format.

Cyrillic texts can be used on the computer for Cyrillic fonts in word processing as well as for reading Russian language web pages. In each of these cases, a variety of factors must be considered, including which type of computer,¹⁸ word processing program,¹⁹ and browser software²⁰ are being used. A complete exposition of these issues is beyond the scope of this Essay.²¹

13. To access Kodeks, see <<http://www.kodeks.net/rus.htm>>.

14. To access Garant, see <<http://www.garant.ru>>.

15. To access Consultant, see <<http://www.consultant.ru/mainmenu/mainmenu.htm>>.

16. To access Rambler, see <<http://counter.rambler.ru/top100/Law/index.shtml.ru>>.

17. To access Klever, see <<http://www.moscow.klever.net/labas/topnews.html>>.

18. Examples of computers include Windows, Apple Macintosh, and UNIX.

19. Examples of word processing programs are WordPerfect and Microsoft Word.

20. Examples of browser software include Netscape and Internet Explorer.

21. In brief, users of Windows 95 may or may not have the Cyrillic fonts already installed. To install the fonts in the U.S. edition of Windows, first go to "Control Panel," and then to "Add/Remove Programs." Next go to "Windows Setup," followed by "Multilanguage Support," and click "Details." Finally, select "Cyrillic Language Support" and click "OK" to complete the installation. See *Russify Everything* (visited Apr. 5,

Cyrillic fonts for word processing can be easily downloaded from the Internet. Gavin Helf has designed a number of fonts functional for office use, including Architect fonts, Bukinist fonts, Kurier fonts, ER Third Roman fonts, or Univers fonts.²² I have used Bukinist fonts and have been pleased with the way that they look on the page.

Once a Cyrillic file is received as an e-mail attachment, the document should be saved and then retrieved using a word processor. The default font will likely not be a Cyrillic font, so simply select all of the text and change the font to Cyrillic font. The user will not usually know whether the file was created in Windows 1251 Cyrillic or KOI8. The easiest approach is merely to try one font, such as Bukinist 1251. If the text still looks like gibberish, try Bukinist KOI8.

Finding an English language version of a Russian statute takes some effort. With the development of computerized databases in the 1970s, the two major U.S. online legal databases, Lexis and WESTLAW, changed the field of legal research. In order to capture the market, they train generation after generation of U.S. law students because skilled online researchers are likely to use online research rather than book research. Both of these databases provide access to law students and faculty at rates substantially below the market. These databases also provide the law school community with a variety of materials that were simply not available in their home libraries, including an array of foreign law documents.

Traditionally, Lexis has published more English and foreign language legal documents than WESTLAW has. Lexis has also published more documents in the vernacular. Within the last couple of years both of these databases have been purchased by international publishing conglomerates based outside the United States, and it would prove surprising if they did not begin

1999) <<http://www.siber.com/sib/russify/>> (on file with the *Fordham International Law Journal*) (containing detailed instructions to make software work with Cyrillic characters).

22. An excellent discussion of the subject appears on the SovInformBureau web site. See *Russify MS Windows: Fonts* (visited Apr. 5, 1999) <<http://www.siber.com/sib/russify/ms-windows/fonts/>> (on file with the *Fordham International Law Journal*). Once downloaded, unzip the fonts and save them to a folder. The default folder for zipped files may be "c:\unzipped." To install the fonts in Windows 95, open the Fonts folder in the control panel. Under "File" pull down "Menu," click "Install Fonts," and click on the drive and folder that contains the desired fonts.

to publish more legal materials from around the world in the future.

Lexis publishes a number of files directly related to issues of Russian law, including Russian Legal Texts,²³ Economic Laws of the Russian Federation,²⁴ and Economic Laws of the Russian Federation—Archive.²⁵ Searches for Russian statutes can be narrowly written if the number of the statute and the date that it became a law is known. News files often provide specific information about statutes and codes.

Lexis contains files of the following newspapers relating specifically to Russia: *The Moscow Times*,²⁶ *Moscow News*,²⁷ *RusData*

23. Russian Legal Texts is a Lexis file containing English translations of Russian laws affecting foreign economic activity in Russia. Available on Lexis since August 1986, it includes laws on currency regulations, licensing and patents, copyright and trademarks, real estate, joint ventures, foreign businesses, and commercial transactions.

24. Economic Laws of the Russian Federation is prepared by Garant-Service of Moscow, Russia, and begins coverage in 1990. It contains "fulltext current laws, decrees, resolutions, instructions and regulations on economic activity in the Russian Federation in English." *Lexis Source Locator, Economic Laws of the Russian Federation* (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lnc/scripts/info.pl?149693>> (on file with the *Fordham International Law Journal*). Documents published in this file are from the Supreme Soviet, President, Government, Central Bank, Ministry of Finance, State Anti-Monopoly Committee, State Customs Committee, State Tax Service, State Property Management Committee, Ministry of Foreign Economic Relations, State Arbitration, Ministry of Economics, and 86 other State Institutions.

25. Also covering the period since 1990, Economic Laws of the Russian Federation—Archive is an archive for invalid or obsolete documents from the Economic Laws of the Russian Federation database.

26. Lexis explains that *The Moscow Times* is

Russia's first and leading English language daily newspaper and has become the primary source of news to the growing number of foreign businessmen, diplomats and journalists living and working in Moscow and St. Petersburg. The newspaper, which has appeared five days per week since October 1992, covers political, business and cultural news from within the former Soviet Union.

Lexis Source Locator, The Moscow Times (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lnc/scripts/info.pl?145252>> (on file with the *Fordham International Law Journal*).

27. Lexis explains that

Moscow News, one of Russia's leading reformist weekly newspaper[s], was launched in 1930. Its influence and broad readership across the country and abroad are due to the fact that it was the country's first paper to exploit glasnost to the hilt, raising the hottest issues in the early day of perestroika, when other periodicals were just testing the waters. Today, it is published in Russian and English in total print of approximately 300,000 copies. The paper is independent of government or party structure. Its founders are prominent politicians, public figures, scientists and writers.

DiaLine—BizEkon News,²⁸ *Russica—Russian Press Digest*,²⁹ *TASS*,³⁰ and *What the Papers Say*.³¹ Sophisticated researchers can make use of the information discovered in news files to create a better search within the legislative files. A search for articles discussing land registration, for example, may provide the statutory citation for legislation and the date that the statute became law. This information can be used to create a more specific search within the files of statutory sources.

Researchers without access to Lexis can do similar research on the Internet using any of the common search engines, such as Hotbot,³² AltaVista,³³ or Google,³⁴ to discover articles in the

Lexis Source Locator, Moscow News (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lncs/scripts/info.pl?10966>> (on file with the *Fordham International Law Journal*).

28. *BizEkon News*, published by Russica Information, Incorporated, was formerly named *SovData DiaLine*. Lexis describes *BizEkon News* as providing "up-to-date economic news from over 150 Russian periodicals—daily, weekly and monthly newspapers and magazines. Articles of interest to Western professionals are selected and translated by Russia's finest English-speaking economic journalists." *Lexis Source Locator, RusData DiaLine—BizEkon News* (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lncs/scripts/info.pl?10914>> (on file with the *Fordham International Law Journal*). The file is updated within 24 hours of publication of the underlying journal text and covers the period from January 1990 to the present.

29. Covering the period since February 1990, the *Russian Press Digest*, formerly *Soviet Press Digest*, provides daily "English translations of the most interesting news and feature articles in the major Moscow daily, weekly and monthly newspapers as well as the principal provincial press, covering over 100 periodicals." *Lexis Source Locator, Russian Press Digest* (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lncs/scripts/info.pl?8298>> (on file with the *Fordham International Law Journal*).

30. *TASS*, or *The Telegraph Agency of the Soviet Union*, is the official Soviet news agency. The English language wire service provides "more than 100 stories each day covering official statements, domestic happenings, political and economic news, international events, and comments on world affairs in general." *Lexis Source Locator, TASS* (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lncs/scripts/info.pl?8063>> (on file with the *Fordham International Law Journal*). Lexis coverage begins with January 1, 1987.

31. Lexis describes *What the Papers Say* as "a daily international service geared to the needs of journalists, researchers, diplomats and businessmen—all who have a general interest in the political situation in Russia and the CIS (Commonwealth of Independent States)." *Lexis Source Locator, What the Papers Say* (visited Apr. 14, 1999) <<http://www.lexis-nexis.com/lncs/scripts/info.pl?172571>> (on file with the *Fordham International Law Journal*). Each issue includes: Today's Newspapers—the most important features from this morning's newspapers; TV and Radio Highlights—coverage of the previous night's news and public affairs broadcasts; Press Extracts—a selection of the best articles from over 60 national dailies and weeklies of the previous day; and Shorts—a collection of interesting facts and figures scattered about the pages of Russian newspapers.

32. To access Hotbot, see <<http://www.hotbot.com>>.

33. To access AltaVista, see <<http://www.altavista.com>>.

34. To access Google, see <<http://www.google.com>>.

press or academic journals. Once again, a search of cites that contain specific Russian legal sources will help narrow the search for secondary literature that describes a particular statute.

Listservs and their archives can also be a great help in finding statutes. A number of lists exist that focus on issues related to Russian law. Lyonette Louis-Jacques maintains a web site of listservs that deal with law.³⁵ A searchable index for the file is available.³⁶ Foreign and International Law Librarians ("Int-Law") maintain a list as well.³⁷ Archives are also available for the Int-Law list.³⁸

I have had success putting all these resources to use in finding Russian law. A few years ago I searched for the Russian Civil Code, Part 2, which had not as yet been translated into English. By using search engines to search the web, I found that a professor at American University had served as a consultant on issues dealing with the Civil Code. I was able to find his e-mail address on the web and send a request to him. I received the text by Federal Express within two days.

IV. *THE FUTURE OF COMPUTER TECHNOLOGY AND THE RULE OF LAW*

The future of computing technology as it applies to rule of law projects is difficult to predict with accuracy. Computing power continues to grow at an exponential rate. Bandwidth problems, the bottlenecks that cause slow transmission of data over the Internet, continue to exist. Attempts to create a different level of Internet for special users may be of help to some university-based rule of law partners. It is clear that the desire

35. See *Law Lists Info* (visited Apr. 5, 1999) <<http://www-user.lib.uchicago.edu/~llou/lawlists/info.html>> (on file with the *Fordham International Law Journal*).

36. To access the searchable index, see <<http://www.lib.uchicago.edu/cgi-bin/law-lists>>.

37. Int-Law, or Foreign and International Law Librarians, is described as including a "discussion of foreign, comparative, & international legal print, electronic, & 'people' resources, including for Europe, Latin America, Africa, and Asia; exchange of international legal documentation/information; advanced table of contents posted for International Legal Materials & the American Journal of International Law." Lyonette Louis-Jacques, *Law Lists* (last modified Feb. 1, 1999) <<http://www.lib.uchicago.edu/~llou/lawlists/lawlists.2-99.html>> (on file with the *Fordham International Law Journal*).

38. For archives of the Int-Law list, see <<http://listhost.ciesin.org/lists/public/int-law/>> and <<http://www.ljx.com/public/maillinglists/intlaw-l/index.html>>.

for more access to the Internet by people around the world will continue.

In the interim, there are a couple of trends and changes that may be worth watching. One trend is the continued adoption of Internet telephone programs. It is unclear whether a standard program will develop that can successfully provide access for partners in rule of law programs. The existence of a standard program will depend on both software and network capability. Nonetheless, it is one sphere worth keeping an eye on.

The second trend is the use of machine translation. Many people may have seen the capability of Babelfish, the automatic translation program attached to the AltaVista search engine.³⁹ Babelfish is named after the small fish in the Douglas Adams science fiction classic, *Hitchhiker's Guide to the Galaxy*,⁴⁰ which could automatically provide direct interpretation when placed next to an ear. Babelfish can translate a short text or a web page from English to Italian, French, German, Spanish, or Portuguese.

There is no doubt that machine-based translation from English to Russian and back is a greater challenge, if for no other reason than because of the shift from Latin to Cyrillic alphabets. I have not had much experience with these programs, nor do I know of any American who regularly uses one of them. It is common, however, to find these programs available on Russian colleagues' computer desktops.⁴¹ The reason for minimal U.S. use may be that much machine translation is imperfect. The translation programs can easily be tested by translating a few paragraphs of English text into another language, perhaps Russian, and then taking the results and retranslating them into English.⁴² The results may at best prove to be poor translations,

39. To access Babelfish, see <<http://babelfish.altavista.digital.com/cgi-bin/translate?>>.

40. DOUGLAS ADAMS, *HITCHHIKER'S GUIDE TO THE GALAXY* (1995).

41. Socrate, <<http://www.socrate.ru>>, seems the most common of these, but many more exist. One dealer of machine translation software, <<http://digitallanguage.com/trans.htm#socper>>, lists a half dozen different programs on its web page, with assorted specialized dictionaries.

42. Socrate has a demonstration version of the translation software limited to 100 words of text available on the Internet. See *Translation Software* (visited Apr. 5, 1999) <<http://www.socrate.ru/online/online.asp>> (on file with the *Fordham International Law Journal*). The following sentence has been translated from English into Russian and back into English using the demonstration version of Socrate:

and at worst, comical. As a law school professor once told me in a discussion about a section of the Internal Revenue Code, "If you already know what it says, then you will understand it when reading it; if you don't know what it means, then no amount of reading the text will make it clear." While Americans as a general rule still suffer too often from a lack of knowledge of the partner's language, many more Russians know English sufficiently well that a poor translation of text from English to Russian may be good enough to make the English understood.

If you already know what it says, then you will understand it when reading it; if you don't know what it means, then no amount of reading the text will make it clear.

Если Вы уже знаете что
сказано, тогда Вы
поймете ему при чтение
это; если Вы не делаете
знать что, он означает,
тогда никакая сумма
чтение текста не даст
понять.

If you already know that is said, then you will understand him when reading this; if you non do to know that, it means, then no amount a reading a text will non hint.