

Gateways to electronic Resources from Bonn (from Brest) to Wladiwostok. (Russian Approach)

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1. Introduction

I'm not sure that I'm in a position to cover all the continent from Bonn to Wladiwostok. It's better to present an information on gateways starting at the Western borders of Russia, namely from Brest to Wladiwostok.

The German approach was perfectly outlined by Dr. Friedrich Bode.

Not to look like occupant I should take into account the hyper sensitivity of the East European and Baltic countries to any Russian evaluations. My brief comments on the East European and Baltic countries efforts on information technology developments are as follows. There is normal Internet connectivity: with respect to some pretty conventional threshold value which corresponded to Internet connectivity provision to more than 10 % population (with respect to multiplication effect this level supposes involvement of some critical mass of population to become influential factor). I could mention here Estonia, Latvia, Poland, Hungary, Czech Republic, Slovenia. For instance Estonia could provide Internet access to 30% population and has developed «Tiger Leap» program to get Internet connection to all schools; Czech Republic provides access to more than 10 % population. There are some difficulties for

the Balkan states due to political and economical reasons. As for sciotech electronic resources the content unfortunately is poor : there are many tutorial and outdated materials. The data flow looks like one way traffic mainly, for provision Eastern users with Western information.

By the way almost the same goes for the Russian and CIS databases. Ms. Tanya Konn of Glasgow University wrote in December 1999 London Online 99 issue of «Information World Review» : «(East European) Internet is currently limited not by technology, but the primitive notions of information gathering, presentation and lack of retrieval sophistication».

One more problem for former Soviet Union countries sciotech electronic resources is a replacement of language for scientific discussions and publications : instead of commonly used Russian they now heavily rely upon national languages combined with English or Arabic. It goes without saying that bridging the language gap and accumulation of critical mass of national electronic resources will take time (5 - 12 years). Moreover there is a gap between two generations : the elder one do not speak English but occupy middle level and top managing positions; the younger one is English speaking but shall wait until the generation change.

2. Technical Aspects and User Service

2.1 Connectivity. Russia joined NSFNET in 1993. Estimated total capacity of Russian domestic East - West and North - South telecommunications varies from 10 to 100 Mbps; outward (westbound) telecommunication traffic is provided mainly via Finland at transmission capacity less than 100 Mbps by the end of 1999. There are hundreds of regional Internet providers, both public domain (free of charge connection) and corporate ones, for instance aha.ru, cityline.ru, demos.ru, online.ru, relcom.ru. Commercial provider connection fares are 30 - 50 USD monthly for personal use and 1200 - 1500 USD for a corporate user. Our library has been paying 200 USD per month for 2 Mbps fiber optic cable connection and we have also free of charge 128 kbps aerial channel. Total turnover of Internet providers in Russia is 150 mln dollars per year.

One should pay tribute to the outstanding role of the Soros Foundation (Open Society Institute, which sponsored connection of 32 Russian Universities and hundreds libraries to Internet); Russian non - governmental Foundation of Basic Research was very active as well.

Long distance lines operator is monopolist private company Rostelecom (Svyazinvest financial group); military industry originated Vympelcom has its own niche (satellite communications, cellular and mobiles). New participants in this market are Transtelecom (affiliated with railways) and Emficom (affiliated with Electric Power Supply Grids).

The leading foreign operator on Russian communication market is Global One Company (former Sprint). This is one of the world known company ISO 9001 quality standard certified, joint venture with Deutsche Telecom, which provides services from X.25, X.400 to TCP/IP and ATM, IP-telephony to 300 Russian cities spread over 11 hours time lag.

Very useful role plays German - Russian joint program of STN databases promotion to Russian regional STI centers (main participants are FIZ Karlsruhe, TIB/UB from the German side and ICSTI, Rosinform Resource from the Russian side).

To conclude this chapter with a joke I would like to remind that on 16 December 1999 the Kurchatov Atomic Energy Institute launched helium filled balloon with 11 Mbps transmission capacity retranslator to provide Internet connection to 100 schools of North - Western districts of Moscow. The reason was that the Institute director Academician Evgueni Velikhov had been promoting his candidacy for the upcoming State Duma elections. After the

Election Day (19 December Mr. Velikhov has) the balloon was landed.

2.2 Internet Users. As for the number of Internet users there is uncertainty: estimations on the ground of weekly surveys of 5013 respondents in 220 cities revealed that there are 8.5 mln Internet and e-mail users (7.7 % of the Russia adult population (see monitoring.ru). Despite fairly scientific approach these data look like overestimation. More realistic evaluations are of 2.5 - 2.0 mln Russian Internet users.

Gallup Media 1997 poll : Russians have 3.2 mln. home PC and 1.7 mln. Russians use Internet at least once per month. Anyway the numerical difference is not important here because of exponential growth rate.

Out of estimated 2 mln Russian Internet users the majority is connected via office (not via home); for this category Internet users an average revenue is ca 800 roubles per capita monthly (53 DM per capita monthly) (*Electron commerce conference St. Petersburg, November 1999*).

I should also mention that Russia has no special library networks. There was the LIBNET established at 1997 which connected via public telephone lines 5 major libraries of Moscow and St. Petersburg; this network featured inadequacy and now was abandoned. One more curious fact is that domestic communication is negatively affected by different Russian language encoding charts (there are KOI-8R, Win 1251, ISO 8859, etc., up to 15 different encoding sets!). As an Internet user I have no problems with English texts, there are small corrections due to diacritic symbols in French and Deutsch, but over 30 % Russian texts need intricate decoding procedure i.e are hardly accessible.

2.3 Websites. The world wide web is getting bigger by at least three million pages a day and now lists more 1 600 000 sites. Runet (Russian language part of Internet which counts domain addresses su, ru, am, az, by, ge, kg, kz, md, ua plus any servers displaying any Russian text) now has more 10 000 Gbytes content, 14 mln URLs and more 60 000 sites.

To register new Russian web server with .ru domain and 1-2 Mbyte capacity home page you should request ripn.ru and pay 36 USD.

Volatility presents a problem, above mentioned citation of Tania Konn notes : «The flurry of growth in English language Internet web sites on Eastern Europe in the past year had a number of causes. Significant among these was the sudden explosion of sites reporting and interpreting the Russian

crisis, and the more deliberate increase in the number of sites devoted to enlargement of European Union. The fact that previously used sites have disappeared without trace or notice while others have re-fashioned themselves at different addresses, without a forwarding note, impairs information retrieval efficiency to a considerable degree. My impression is that this last year the increase in the pace of Internet growth has been associated with a parallel increase in site disappearances and unexpected re-appearances. The rush to set up the Internet sites is associated with casual, unprofessional approaches to information provision.» That is why I wish to give you some useful or widely used addresses (*URLs without repeated www domain prefix*).

3. Current Content and Navigation

3.1 Search Engines, Directories and Portals. To begin with let me recommend you the widely used and quite comprehensive Russian language search engines with automated updating of electronic resources :
 rambler.ru (*1st position of all visited Russian sites with ca 12 % visitors' rating*);
 yandex.ru (*holds 19th position with ca 1 % rating*)

Search and retrieval software of these engines take into account flexibility of Russian language : left end and right end truncation enables to find all possible variants with no respect to suffixes, prefixes and variable endings.

Amidst Russian language directories of electronic resources equipped with certain search abilities stars.ru is one of the first and most comprehensive directory with pretty developed structure. You could find documents or description of servers; there are also resource rating facility and resource roulette. One more directory au.ru (now it atrus.ru !) provides the answering complex questions and has automated translation facility via aport.ru search server.

Portal with information on Russian education institutions and relevant resources, reference books, guides, - informika.ru, referats.ru, escc.ru

3.2 Official websites, politics, mass media, culture and education.

Internet presents «The latest methods of keeping mass of information under control» says Alan Copps, The Times, *alan.copps@the-times.co.uk*

Russian web sites have played an important role in political disputes in the run up to the parliamentary elections last December. Right-wing policy makers looked better equipped and they succeeded. Unfortunately so called «Black PR» technology was widely used on the Internet with

intense dissemination of intricate gossips, fraud accusations, false flag web sites and other tricks; Mr. Gleb Pavlovski, head of the «Efficient Policy Foundation» get the leading role in this specific business. The reason of the malfunction is that the Russian Internet is not yet liable to Mass Media Law and publication of false information is not prosecuted.

Quite featuring is that Prime Minister and Acting President Mr. Putin has published his Program of Economic development first via Internet on Presidential Administration server gov.ru. You could follow legislation process at Russian Parliament servers : State Duma server duma.ru for the House of Representatives and parliament.ru for the Senate (Federal Congress). There are a lot of servers of parties and policymakers like nemtsov.ru kirineko.ru, kprf.ru, etc.

Fast growing industrial sector presents digital mass media : newspapers, news agencies, digital TV and cinema like rian.ru, osp.ru, ntv.ru, tv6.ru, kp.ru, mn.ru, km.ru and daily news aggregation services since 1999 like gazeta.ru by Anton Nosik, lenta.ru vesti.ru; review of publishing houses presents souzpechat.ru

3.3 Libraries and Information Centers, Scitech Resources.

To pay tribute to the British Council as a coorganizer of this conference I remind you that visiting the library is the fifth most popular pastime in the UK (35 % of population has home PC). The first four are : visiting a pub (1), eating in a restaurant (2), driving for pleasure (3), eating in a fast-food restaurant (4). That was why Dr. Brian Lang, The British Library CEO has said at Online'99 conference opening: «technology and culture are out of step and we shall overcome people's reluctance to read documents on screen». Russian culture is not suffering this way because of technological shortcomings. Classic portal for fine arts is museum.ru ; besides you could search at hermitage.ru ; tretyakov.ru

A fairly good starting point with links to thousands of Russian domestic and foreign library servers, electronic newspapers and magazines is our library gpntb.ru Other major library sites : nlr.ru for National Library of Russia, St. Petersburg, rsl.ru for Russian State Library, Moscow.

Since December 1998 Research Electronic library at library.intra.ru has provided access to 350 full text Elsevier and to 439 Springer magazines. This library has 1500 registered users and features 20000 hits daily.

Our Library provides access to 780 full text electronic journals (compared to 1200 domestic and 2000 foreign printed magazines). I wish to say some words about the optimizing user services. Future libraries will be hybrid ones as soon as pure electronic or pure printed

library could be kept only for some special reasons. We hope that hybridization will involve both the CD-ROM and on line applications. Basic reference information and FAQ should be at reference librarian's hand permanently on CD and for complex or rare questions Internet searches will fit better. Creation of optimal linkage is a very interesting, responsible and brain taking part of electronic documents processing which could provide efficient and time saving usage of given material. Will it be done in library or outside ? That is the question.

The majority of Russian Scitech resources are produced by large institutions, members of State STI system like VINITI viniti.msk.su, academic producer of abstracts of periodicals, VNTICenter (vntic.ru) which holds R & D registration cards and formal final reports, ICSTI (icsti.su) and VIMI which have been collecting technological data, our library holds a grey literature database. A comprehensive study of the East European and Russian Electronic databases was made in 1996 as a joint project of GMD (Dr. M.A. Courage) and ICSTI (Dr. A. Butrimenko); since then no new survey has been available.

State registration of electronic resources was mandated to InformRegister. The latest steps of the Government to coordinate the digitization projects are made in the framework of the Russian Electronic Library National Program.

There is no large commercial company which generates scitech information databases. There is no domestic demand for STI because there is no competitiveness on the Russian market yet and total allocations to science diminished by 10-15 times during the past decade. The salary of researcher in Moscow is 40 % less than average one; in the depressed regions the education level of the unemployed is higher than of the employed. Less than 8 % of graduates could find job within their education specialty.

4. Impact of Internet on Social and Economic Problems

4.1 E-commerce presents a big opportunity for the year 2000. At multibillion sales level and sky rocketing growth rate (Intel President Craig Barret predicts 1 trln dollars world e-market by 2002 year at 4 mln servers and ca 1 bln usres) this is global shop or at least global booking point and a very prestigious business. I remind also

the nomination «Man of the Year» award to amazon.com CEO having 13 mln transactions in 4 years.

Unfortunately Russia now is far behind the developed countries with respect to e-commerce developments, infrastructure and Internet (holds 56th - 59th position according to the Davos economic conference evaluations). There are 388 e-shops in Russia and CIS now according to magazin.ru navigator; annual average turnover of each shop is pretty low, ca 30 000 dollars. That is why 1999 turnover of Russian Internet e-commerce did not exceed 10 - 12 mln dollars.

More 5000 Runet sites deal with business information; for instance, «Rosbusiness consulting» rbc.ru which publishes business and political news, main stock exchange and financial parameters, etc. Financial information is also available at finmarket.ru or prime-tass.ru

Large polithematic portal (something like cnn.com) with political, financial, business information, weather, etc. - infoart.ru. Pretty popular for recruitment and job searches in Moscow server is pointjob.ru.

Advertising business shall be mentioned first of all; it penetrates all facets of the Internet and banners are flashing at every home page. One more virtual activity with 15 mln dollars turnover is reselling of web sites.

Banking, securities trade, electronic payments make a considerable part of Russian e-commerce. Having invested millions of dollars the Menatep - St. Petersburg Bank makes 90 % of payments via Internet; there are only 200 office operators instead of 500 - 700. Since 1997 the Guta Bank operates «Remote Trader» and «Telebank» systems; there are 4 000 clients yet at potential market of 300 000 - 400 000 clients.

I should mention computer related businesses like «Computer Depo», computer sales to corporate clients (PC sales in Russia are 1.0 - 1.5 mln yearly); Anatoly Karachinski, IBS company president says : «for the time being with approximately 1 mln. Russian Internet users we are only developing e-commerce technology, back offices operation and supply technique»; besides, high quality communication infrastructure, payment systems and public trust are the problems to be solved. There will be no considerable revenue until 5 - 6 mln. Internet users connected.

One more example gives «1C» software company engaged into computer technical support; they answer 6000 Internet questions monthly (compared with 4000 monthly answers via public telephone).

Wholesale food and other commodities e-commerce : planning only. It s like air transportation : you should have not only high quality planes and pilots but provide the earth surface services; good carriers should be supplemented with good logistics.

One more Internet business is IP-telephony. There are now over 100 providers of this fast growing service (eg Moscow - USA call costs 0.95 USD per minute for traditional telephony and 0.25 USD per minute for IP-telephony).

«Control Risks», a London based consultancy (www.org.com) assesses businesses in Russia range from powerful criminal gangs in Moscow and St. Petersburg to corrupt and inefficient bureaucrats. «There are excellent business opportunities however for companies which know how to set up their operations properly» says Alison Crosland of «Control Risks».

Here is Tania Konn again : «A good year ? yes. Certainly dynamic, with dramatic political and economic changes having influential consequences for all sectors of the business information sector».

4.2 Social Impact of Internet. A majority of above mentioned popular sites (rambler, aport, atrus, mail, yandex, etc.) were sold to American companies this year. The reason for these purchases is not immediate profit but access to certain community of Runet users, establishment of social influence portals.

Generally it has been noted that PC expansion and Internet development have triggered growing danger of creating new communities of haves and have nots. Special programs on smoothing the so called digital gap are developed by US government (*NTIA Third Report on Digital Gap, ntia.doc.gov*). Russia is going its way and social impact of Internet is undoubtedly positive. The largest part of Internet users is students (20 %); average age is 31 years and half of Internet users are under 30. Regions are fairly active on the Internet. Regional part of Runet (88 %) exceeds considerably the Moscow and St. Petersburg part (12 %)

Now 11 % of Runet users (it is 670 000) are living in rural areas; last May there were only 470 000 or 7 %. One should mention quite remarkable part of Siberia and Far Eastern regions (27 % of Runet total audience); each third family in Nadym has home PC.

From this point of view Russian Internet facilitates social equalizing, makes more homogeneous social environment and diminishes the gap between the poor and the rich. (A.G. Vaganov, *NG-Nauka N 11, December 15 1999*).

5. Legal Issues

Though Internet related Russian Legislation lists over 50 Federal Laws, Russian hackers and credit card thieves consider the net as a wild West. Igor Ovcharov, - head of Department of High End Technology Crimes of State Police says: 90 % of crimes (infringement of Copyright, intellectual property rights and illegal access to closed information systems) could not be prosecuted because of shortcomings of legislation (*2th International conference on Russian E-commerce As a Way to Global Open Market, Moscow, 9-10 December 1999*).

Russian Foundation for Legislation Reforms has established server rflr.ru with data on private companies, research institutions, judicial publishing houses and governmental departments (Ministry of Justice, Federal Agency of Governmental Communications).

Moscow State University has established garant.ru site with news, Russian Legislation database, Custom legislation, Bank legislation, Criminal and Administrative laws, Real Estate and Land usage, Mineral Resources, Environment Protection, Dwelling, Accounting, Moscow Regional legislation, Civil Court and Arbitrary Court practice. Free of charge search is available by description, titles, text, as well as by situation with arbitrary formulated problem and full text document delivery is charged. One more judicial content site is kodeks.ru.

Draft of the Federal Program of Russian E-commerce to be developed by the Ministry of Trade by 1st quarter of year 2000. Problems identified by «Ernst and Young» company Russian office are as follows : authenticity, electronic signature, communication and logistics, high resolution (high cost) large user monitors.

Last December the Russian Society on Multimedia and Networks was established and popular show star Mr. Stas Namin was elected President. The goal is to strengthen author rights and related rights for Internet works (alongside with Russian Author Society and

Russian Society on Affiliated Rights). Typical infringements are musical inserts for web sites, «Moshkov Library», Internet radio broadcasting. (*«Commersant» newspaper of 8 December*)

Non cultural heritage of the former SU is security mania : 50 - 60 % of inorganic chemistry research results are classified (*I.Melikhov, Yu. Tret yakov, NG N4, p.3 April 1999*). There are visible efforts of governmental departments to monitor the Runet content and to register new sites by the Federal Ministry of Mass Media.

Expert group was established by the State Duma Committee on Information Policy and Communication to discuss «The Internet Law»; they estimate to get ca 500 00 comments. Foreign specialists are kindly invited to participate at algo.ru/docs/199912/01.asp

6. Resume

I conclude with several very personal statements :

1. Is there a unite and continuous Russian information space? Yes, there is. Internet is recognized by political authorities and by businessmen as an important factor of power.
2. Connectivity to Internet in Russia is growing exponentially and now is close to critical point of 10 % population which provides considerable role of information transfer in social and economic life.
3. Cultural space is global, especially for language independent arts. Mass media and advertising businesses go its own way; there is no formal globalisation because of national and linguistic barriers.
4. Financial market is ready to be a part of Information Society, it is ready to join the world market. Other businesses and e-commerce as a whole are waiting for major changes in logistics and legislation.
5. Legal issues are put progressively under public control and this is good news.

To promote Russian Culture integration into new environment and expand Internet activity over vast rural areas the Russian Internet Academy has been established recently with Intel company sponsoring several Oscar-like prizes to Russian language web sites (the best appreciated site in music or in science or in education, health, literature, entertainment and so on). I hope that after this speech you would participate in Russian web sites evaluations and awards nomination by voting at (nagrada.ru).