HCI and Usability in Russia

Ivan Burmistrov
Department of Psychology
Moscow State University
8-5 Mokhovaya Ul.
Moscow 103009 Russia
ivan@psychology.ru

Alexey Kopylov, Platon Dneprovsky
UIDesign Group
19B-195 Muranovskaya Ul.
Moscow 127349 Russia
{copylove, platon}@uidesign.ru

Yaroslav Perevalov
RTS Stock Exchange
38-1 Dolgorukovskaya Ul.
Moscow 127006 Russia
yaroslav@rts.ru

Abstract
This paper presents the "bird's-eye-view" of the development and growth of HCI and usability within academia and industry in Russia. The paper also highlights the challenges facing Russian HCI and usability community.

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HISTORY
Having a long history and deep roots in both academy and industry of the Soviet era, the Russian HCI and usability movement became internationally visible only in 1991 with the "iron curtain" fall and the First International Workshop on Human-Computer Interaction held in Moscow. Following the success of this workshop, a series of annual East-West Conferences on Human-Computer Interaction (EWHCI) took place in Moscow and St.-Petersburg in 1992-96. Russia and other former Soviet Union countries represented the "east", while North America, Western Europe, Japan, Australia and New Zealand represented the "west". EWHCI conferences were attended by many brilliant researchers from the "west", and the overall quality of presentations was very high. Selected papers from EWHCI '93, '94 and '95 were published by Springer-Verlag in their *Lecture Notes in Computer Science* series. Very positive conference reports for EWHCI '92, '93 and '94 were published in *SIGCHI Bulletin*. No doubt, in 1992-95, EWHCI was a world-level forum in the HCI field.

However, by the mid-90s, the situation's got worse. Forced by destructive "economical reforms", drastic reduction of manufacturing industries, large-scale deindustrialization, and the grave crisis in higher education and science many Russian researches and practitioners gave up their HCI-related careers for new sales- and business-related jobs that offered higher salaries. The "brain drain" among the Russian HCI community was considerable too.

As a result, Eastern attendance and quality of presentations at the EWHCI were down from year to year, the conference transforming into "a meeting for Westerners, but on the Russian territory". 1996 became the last year of EWHCI.

This is not the end of the story, however. Current situation with HCI and usability in Russia is very positive, and EWHCI era played its important role in forming this situation. Today, the veterans of the movement and young enthusiastic newcomers work successfully in the field and the progress is evident.

THE CURRENT SITUATION
Improvement of the economic situation in Russia has served as the principal cause of this progress in the HCI and usability area. GDP growth in Russia was 7.2% for the first six months of 2003. Among all Central and Eastern Europe countries, Russia has the highest spending on information technology today. It offers a large market with a population of nearly 150 million, and the seventh fastest growing consumer market in the world. The number of engineers in Russia (55 per 10,000 people) puts the country behind Israel, the US and Japan only. Statistics put the number of programmers in the country at 1.3 million. According to the World Bank, Russia has one million specialists who are capable of quickly joining its IT sector. The annual growth rate of software products on the Russian market is 15-20%.

In the following sections, we will give several examples of the development and growth of HCI and usability activities within academia and industry in Russia.

Academia
The Laboratory of Work Psychology (LWP) at the Moscow State University pioneered HCI research in Russia since late-80s. The activities of the LWP cover a broad range of HCI topics. The focus of the work is research into and development of software systems with a long-term aim of producing commercially exploitable systems. An important feature of LWP is the close relationship that exists between research and software industry. Many LWP staff members have industrial assignments in addition to the research tasks within the university.

Examples of LWP's industry-oriented work include the organization of the usability department at the RTS Stock Exchange; the prototyping of on-line decision support and error prevention system for operators of process industries; UI design consultancy work for a clearing company; and the development of user interface recommendations for fre-

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quently interrupted mental work. Educational activities of LWP include supervision of MSc and PhD students whose theses are concerned with different topics in the HCI and usability field (there were five such students in 2003).

Another example of academic work in HCI is the Moscow Institute of Radioengineering, Electronics and Automation, which offers several courses related to HCI and usability, in particular, "Software Ergonomics". However, there is still no university in Russia offering BSc or MSc degrees in HCI. At the same time, it is recognized that to meet the needs of the IT industry, it is necessary to develop an advanced HCI curriculum in Russian higher education system.

Usability in Software Industry

In Russian IT sector, technological concerns to IT systems development still predominate. Russian high-tech products have traits of that well-known "misanthropic look" typical for many Russian (or Soviet) products and services. Enthusiasm for technology for technology's sake too often obscures the fact that many IT products and services on offer simply ignore the actual needs and interests of real users in real markets.

The situation is changing, however. Sometimes the West exerts pressure on Russian manufactures. When a Russian developer starts outsourcing for Western market, the customer may ask for more usability. On the other hand, there is a number of Russian hi-tech managers who have heard about the word "usability" and are inclined to hire usability specialists simply because "it is very fashionable in the West". The problem is that usually they have wrong expectations and do not know how to involve usability activities in conventional software development cycle.

Nevertheless, there are examples of successful usability work in software industry. For instance, the RTS Stock Exchange, the Russian oldest fully electronic system for trade in securities, created their usability department as early as in 1997. The usability group's main goal is to conduct usability engineering and user interface design for the software development departments of the RTS Stock Exchange. The group's most prominent work is the development of the user interface for the stock trader workstation, *RTS Plaza*, the system used not only in Russia but also by stock traders in Bulgaria, Armenia and Georgia.

There are successfully functioning usability departments in other software companies, e. g. in telecommunication and web development firms. However, the most widespread variant of usability specialists' participation in software development is contract work and consultancy.

Usability Engineering and Consultancy Companies

At the moment, there are only two companies in the Russian market that fully specialize in usability engineering and consultancy: Usethics and UIDesign Group. Established in 2001, Usethics became the first Russian usability and user interface design company. At that time, there were doubts about the possibility of selling "pure" usability services in the Russian market. But three years of the company's successful work proved that it is not only possible but also profitable. Another company, UIDesign Group has entered the rapidly growing IT market in 2003. The successful projects accomplished by these companies include online banking, e-commerce, electric power trading, document workflow, ERP, billing, education, multimedia and entertainment, insurance, hotel business, and web-site usability.

Russian Usability Community

It is hard to believe, but Russian usability community has been formed around a web site, www.usability.ru. The site was launched by a group of enthusiasts in 1999, and its Usability Forum (a specialist discussion group) turned out to be a very popular and much demanded resource. After a period of virtual communication, the First Russian Workshop on Usability was organized in February, 2001. It became a regular event, and now the community is preparing to organize the 11th meeting in this series. Usually about 25 to 40 people from the European Russia participate in workshops. There is an idea to transform meetings into a conference form, which would allow involving participants from Urals, Siberia and Far East.

PROSPECTS

The Russian usability community faces different obstacles on its way to successful industry development: a small number of trained professionals, the absence of professional standards, the lack of understanding of role and positions of usability specialists in software development lifecycle, etc.

The probable solution to these problems lays in organizing a full-service National Usability Center providing comprehensive product-oriented market research and usability engineering to the high-tech industries such as software development, financial organizations, process industries, transportation, and medicine. This center must be affiliated with one of the largest universities in order to attract students and involve them in practical work as early as possible. Also this Center will certificate specialists according to certain standards. Integration with the world usability community will be one of the main goals of its activity.

We definitely need a jump into the usability era; otherwise Russia would completely fail in the industrial competition with developed countries.