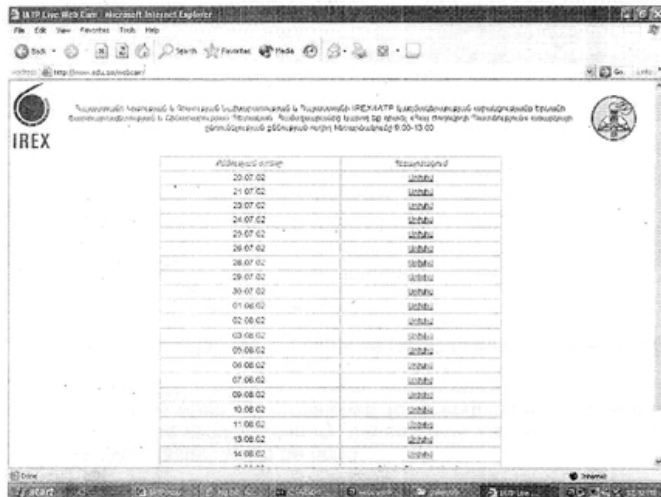


Ministry of Science and Education of Armenia in cooperation and support of IATP/IREX Armenia Online Internet Broadcasting from State Entry Exams in Yerevan State University of Architecture and Construction (20.07-15.08 2002).

Starting from July 20<sup>th</sup> - to August 15<sup>th</sup> in cooperation with the Ministry of Science and Education of Republic of Armenia and support of IATP/IREX Armenia, in Yerevan State University of Architecture and Construction an online Web Camera was set. The camera was broadcasting online the entire process of exams and virtually everyone who has an Internet access, from all over the world, could follow the exam process. Two web sites showing



the live online broadcast were announced to the public:

<http://www.iatp.am> (the official web site of IATP Armenia) and

<http://www.edu.am> (the official web site of the Ministry of Science and Education of Armenia).

In the above-mentioned web sites by clicking on Live Web Cam link users could view the live broadcast. The page includes links to Live Web Cam and Picture archives of the exams that have already been passed. In these online galleries users could see photos of what had happened during previous days.

**Broadcast Structure.** In Yerevan State University of Architecture and Construction (YSUAC) one of IATP Armenia's Sites is located. From YSUAC IATP Armenia was online broadcasting the State Entry Exams. The

University is connected (with a Radio/Wireless Modem) to the Educational Network of Ministry of Education and Science, which is supported by IATP Armenia. In the Examination Hall, two web cameras were set on a computer connected to the EDU.AM Network and were live broadcasting exam process.

Two Creative web cameras (later three) working from different locations, were giving possibility to have more detailed and full view of all Examination Hall. Computer operators from IATP Armenia were working there and periodically changing the locations of the web cameras in order to have better and full view of the Examination Hall.



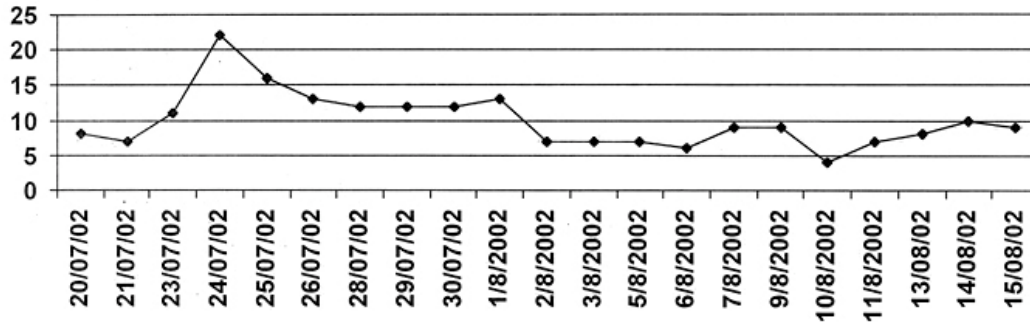
A Web Camera Server (WebCamXP v0.92) was started and broadcasting online all that was happening at that moment in the Hall. During the online live broadcast visitors could also view the pictures that had been taken from the beginning of the exam every 3-5 minutes. So those, who were connecting later, could see pictures of what had happened earlier that day. Now the online picture galleries contain more than 1200 photos.

There was also a possibility to follow and record, in log file, the number of IP addresses that were accessing the web site for viewing the live broadcast. This technology helped to see how many people were really interested in exams and where they were accessing. The log of the 21-day Exam period showed that the site was accessed from about 200 IP address from different regions of Armenia and abroad.

Unfortunately it was not possible to define how many actual users were taking part in this "virtual" exam process as far as from Internet Public Access Centers (such as Online Cafes and etc.) only one

connection (IP address) is being used, though up to 25-30 actual users could have been using the same Internet Connection.

*Statistic numbers of IP Addresses viewed online broadcast.*



Another advanced feature of this technology is the recording of movie files. The computer operators manually were recording short, .avi format movies, which were showing the process of exams. More than 135 movie files are being recorded.

Cameras could also capture single pictures/photos (.jpg format), which were different from photos in online gallery. Computer operators have taken these photos manually. More than 250 photos of this type have been taken.

Recording of movie files and captured photos will help to solve some misunderstandings and problems raised during the exam period.

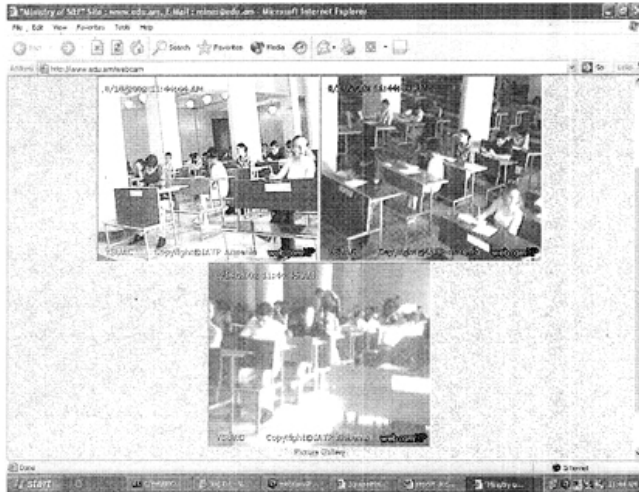


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**Responses IATP Armenia received from:**

**Ministry of Science and Education.** As was mentioned this project was held in cooperation with IREX/IATP Armenia and the Ministry of Science

and Education of Armenia. The greatest response was from the Minister of Science and Education of Armenia. Within exam period almost every other day Minister has visited the Examination Hall and attentively followed the exam process online and how the web cameras are working. It was mentioned that this is the first time in examination history that this type of experience is being practiced. Also positive response was received from other workers of Ministry. They all noticed that this project's reality and life worth.



**Mass Media.** Starting from the 1<sup>st</sup> day of exams Armenian Mass Media was viewing the examination process and the IATP Live Web Cam project was also in the center of their attention. Public and private TV agencies, Radio and newspapers were visiting the exams, and have been interviewed about IATP Live Web Cam project and about

how it all works. In new blocks of the following TV agencies IATP Live Web Cam project was mentioned and spoke about: "H1"-Public television of Armenia, "Armenia TV", "ShantTV", "Prometheus", "A1+" TV agencies, "Perekrestok" TV program of all independent TV agencies of Caucasus, Public Radio of Armenia, and in "Erkir", "Eter", "Aravot", "Novaya Vremya" newspapers.

Mass Media was very carefully following the Online Exam process and at the end marked it as a new step in Armenian Exam history and best way of making exams reachable and well described for the larger public audience. Some of the newspapers mentioned the high role of the New Technologies that are practiced by IATP Armenia and about their role in real life situations, though saying that it will be hard to break public mentality and change them into a Tech Age.



**Examination Committee Members:** Committee members showed a huge interest to this project. They all noticed that this would really help to solve lots of misunderstandings and violations that rise during the exams. Also saying that in this case everyone will be able to follow the exam, and a question of "What's going in there behind the closed doors?" won't be asked.

**Students/Parents/Public:** Students in the Examination Hall were the targeted people group that would give the response and approval for this "online exam" process. The Live Web Cam project showed that they do trust New Technologies more than the individuals. They don't really feel the cameras' presence and work on their tests more relaxed and "safe", knowing that Web Cam is following and recording everything.

**Statistics:** Picture archives on <http://www.edu.am/webcam> and <http://www.iatp.am/web-cam.htm> with about **1200** photos.

Photos taken manually: **250**

Movie files recorded: **136**

IP address that visited the site: **200**

This 21-day period showed that IATP Armenia achieved it's goal of making new and advanced technologies work and available to large public masses. So this was probably really unique and advanced experience that IATP Armenia has practiced, nothing even close to this ever has been in this Region and within the exam history.

*This project was realized in cooperation with Ministry of Science and Education and IATP/IREX Armenia support. Also great support and understanding was received from Yerevan State University of Architecture and Construction (YSUAC).*

**Babken Juharyan, Alexander Hakobyan**