

## **Specific features of development and use of innovation training programs in art and architecture at Open CourseWare.**

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The concepts from the UIA-UNESCO Charter for architectural education and the mission of Moscow Architecture Institute (MArKhI) have launched publications of the Open CourseWare in architecture. Development of social ties between architectural education and society targeted at improvement of specialists' training and spread of professional knowledge is aimed at involving the civil society representatives in making decisions about transformations of spatial environment. Spread of knowledge has various forms both conventional like organization of training projects shows, public lectures of professors, Welcome Days for school leavers, etc., and the novel ones that appeared thanks to computerization of education, e-learning, development of multimedia materials. [1, 2].

Development of new educational forms - the Open CourseWare (OCW) - was initiated by management of bodies that provide additional training for school leavers and are eager to familiarize as many talented teenagers as possible with requirements for examination papers, to attract them to become MArKhI students.

Traditionally training programs for university applicants have been very important. Over 100 years ago an examination in drawing [3] was first included in the list of entrance examinations of the architecture department of Moscow architecture school. In Russia of the turn of the 20th century with its 90% illiteracy a skill of drawing manifested artistic abilities and a relatively good education.

Cancellation of entrance examinations adopted in the 1920s was explained by a wish to make architectural education available for workers and peasants. Absence of knowledge or poor knowledge and cancellation of compulsory entrance examinations negatively affected further training because the training program had to be expanded to fill in the blanks in the education. A wish to keep utmost openness and accessibility of education resulted in development of new methods of professional architectural education successfully worked out by the teachers and the management of the world-famous VKhUTEMAS (The Russian state technical and art school)..

The method of a structural drawing resulted from a search for new "scientific methods in art training" and a solution of a problem of showing structures in a drawing. The methods are very specific and differ from a classical artistic drawing that is why all those who wish to enter MArKhI have to be specially trained. More variable possibilities for obtaining the required training increase chances to enter the school for all those who are eager to become architects.

MArKhI is a home of the Russian education and methods association (REMA) of architectural specialties. This is a basis of MArKhI special mission. REMA coordinates training programs of professional education standards, organizes tutorial workshops of university teachers, and examines materials dealing in appraisal and dissemination of new professional knowledge [4].

The OCW website appeared thanks to an architectural activity of different social groups that comprise the modern society, administration officers, public organizations, project customers, citizens, etc. Open education implies a possibility to find a common language and to adopt

collective solution, elimination of potential social conflicts that errors in public space transformation projects could cause by obtaining fundamentals of professional knowledge.

We studied experience of foreign universities and analyzed goals set by the organizations - OCW Consortium members [5] to evaluate expedience of establishing the OCW in architecture. Three groups of motives were determined in accordance to which Universities of different countries published their OCW joining the OCW Consortium.

Universities in the Young Democracy countries like, for example, the South African Institute for Distance Education, Korean University for Open Education and Open Education University of SAR, publish educational resources in Internet to develop democratic foundations of the state, building a just and democratic society in which conditions for the nation's self-education are created.

The countries that have vast territorial resources and are in need of mass demand of improving the education level of their citizens use the Internet communicative function to achieve and to disseminate knowledge with high speed among big number of the citizens on a big territory. OCW publications promote improvement of the country's economy in general and development of individual professional careers. Universities claiming leadership in national education unite in the State digital resource centers like African Virtual University, China Open Resources for Education (CORE), Indian Institute of Management [8,9,10] and publish OCW in national languages.

Universities in economically developed countries use OCW as a form of organizing a virtual professional socium that promotes development of interdisciplinary research of students, post graduates and scientists.

The three motives of publishing OCW in foreign universities are relevant for Russia and can be implemented with the support of Open Course Ware in architecture.

Establishment of Russian-language OCW in architecture was accompanied by a search for an economic mechanism that could render support and development. In our case investments necessary for publication of OCW cannot be received from private and state resources as is the usual practice for foreign universities. Publication of "secondary" use resources approved in BA and MA training was neither feasible because of the poor computerization of the mainstream architecture education. Primary digital resources in principal programs of BA and MA education in architecture and design do not exist because methods of Russian professional architecture education are based on personal intercommunication of teachers and students.

The poor computerization of Russian architectural education also results from low efficiency of investments required for the works and would not be justified due to a small number of specialists who work in architecture. (Table 1) [6].

*Table 1. Number of architects per 100 000 thousand citizens in different countries.*

Japan	Italy	Germany	France	United Kingdom	USA	Russia
230	145	132	118	52	40	4

In 2009 a possibility to establish Russian-language OCW in architecture appeared when Moscow government allocated a budget for development of professional education innovation programs. For OCW publication the priority guidelines that experts considered most vital and topical were determined. Also the structure of OCW publication was developed. .

Priority publications included innovation programs of post-graduate professional education and training programs for school leavers – pre-university education. Majority of programs were already used in the training process in primary and secondary education at MArKhI but did not have digital environment. In this regard the first stage of establishing MArKhI OCW included digitizing methodical materials, their preparation for publication in OCW in accordance with OCW Consortium requirements. In total 10 courses of pre-university education and six courses of post-graduate education were published; and though the efficiency of OCW had not been proved by the time a decision was taken to continue publications.

Another stage in developing the OCW in architecture included market studies (2010). Studies of socio-economic forecasts from city target-oriented programs of Moscow government helped to identify promising aspects of architecture. Implementation of the programs in the near 5-7 years will demand more architects with innovation professional skills in the highlighted aspects. Those aspects became the basis for innovation programs that were later published on the internet site of the OCW. Further plans envisage organization of full-time training using the developed programs via the qualifications upgrade system of MArKhI.<sup>1</sup>

The process of establishing the OCW in architecture promoted a search of innovative directions of the additional architectural education. New communicative opportunities of the internet and OCW helped to find new target groups of people potentially interested in getting architectural education.

One of the groups features secondary school teachers. Before interaction between secondary schools and higher educational institutions was supported by the government and used to be a prerequisite of existence of the continuous dedication system. Recently due to introduction of the Uniform state exam the connections were lost and the interaction got weaker supported only by individual initiatives between school teachers and university teachers. A study of tasks set for secondary school teachers today and the principles of assignment approach in education provided development of programs of school teachers professional skills upgrade in architecture. Thus a new feature appeared on the OCW site – “For the teachers”. The training programs of the feature contain primary resources.

To the educational designers' regret a study of internet statistics and accesses from “feedback” revealed that innovation materials in the OCW programs in spite of their good quality and novelty did not interest teachers. The situation changed in 2011 when it became possible to organize full-time training of teachers of a program from “Art of structures”. When methodical materials from the OCW started to be used in the program of full-tome education as a methods fund providing preparation for lectures the traffic rate on MArKhI OCW during the teachers' training period increased threefold. At that both compulsory and supplementary programs were popular.

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<sup>1</sup> По ряду причин эти планы не были реализованы.

Teachers preferred to use specially selected OCW methodical materials and not spend time on looking for necessary information in libraries.

The same idea of using methodical materials published on OCW in architecture for full-time education of teachers proved feasible in full-time training of school-leavers. The OCW methods fund promoted a cost reduction of school leavers training by putting down paper materials printout.

The internet statistics of the MArKhI OCW site demonstrates a growth of visitors' number on OCW used in full-time training of teachers and school leavers: time and number of visited pages grow. This testifies to an increasing interest in different materials placed on the OCW site beside the available methods resources.

In 2011 the site structure in the "Other" feature initially designated as a reserve for publication of innovative programs of additional architectural education, was added with programs that were not targeted at specific social groups. Art and culture components of the professional education content became a prerequisite of publishing programs in this feature. Currently their potential is not fully used. Humanistic traditions of Russian education and art patronage [7,8] testify to a big potential for development of additional architectural education in art and culture and its use in solving important social tasks. In the artistic life of modern Russia we see examples of coexistence of non-formal associations of artists, architects who work together with the urban and rural population creating new spatial artistic works [9].

Signs of contemporary life feature organization of street art performances, festivals that bring together artists and local citizens and are supported by sponsors and mass media. Thus the society expresses its readiness both to accept results of work by specialists in artistic transformation of space (architectural environment design) and also to be co-creators.

Artistic means were used at launching work on innovation aspects while developing art-therapeutic programs known as "Art-therapy". Applying different programs of architectural education the authors of new programs used components with a positive emotional background. The scientific-methodical research results were used as a basis for programs "A gifted child" and "Creative life" that were developed and published on OCW. Just like the previously published innovation programs they did not have counterparts in other forms of education and were published as primary digital resources.

By publishing innovation programs on MArKhI OCW site their authors aimed at promoting their innovation works, preparing them for introduction into the system of additional and extra-mural education and getting professional and social evaluation.

Ideas of the OCW education and development of OCW in architecture shall be developed with regard to the following factors:

- OCW programs and ideas are innovative; their social importance demand propagation and promotion both among educational professional institutions and other social groups;
- Economic basis of OCW in architecture existence asks for further specification and estimation; digital educational content and cooperation between OCW and traditional education shall be legally protected;
- It is necessary to develop an HR potential of architecture schools, skills to work with information environment and use it for teaching students and other social groups.

Though quite young the OCW in architecture already demonstrates a positive effect that is explained by a principally new approach to education. An open exchange of knowledge, communication between different social groups within an open content stimulates searches of new directions in the work of teachers and scientists in architecture higher educational institutions.

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