

Integrated Web Platform for Cultural Heritage Presentation Exemplified by the Musical Art in Moldova

Alexandru Colesnicov
Ludmila Malahov

Valentina Demidova
Mircea Petic

Abstract

Integrated Web platform for cultural heritage presentation is exemplified by the musical art in Moldova. The platform is an instrumental program system for creation and renewal of Internet sites by musicians themselves without special assistance. It is a toolkit that allows users to concentrate on their main problems: presentation of musical content. The proposed toolkit provides comfortable and fast site creation and renewal, and does not require special knowledge. Drupal was selected as the base Content Management System (CMS). The resulting site is of professional quality, including complex preprogrammed components. However this orientation does not restrict the area of possible applications; the system can be used as a general-purpose content management tool.

Keywords: information technologies, content management system, Drupal, cultural heritage presentation.

The problem of access to adequate information in the domain of culture and arts is dictated by necessities of both art fans and the specialists. Starting from the hope of European future for the Republic of Moldova, it was found necessary to propagate information on different aspects of cultural activities using the modern information technologies.

The modern technologies propose the corresponding solutions to achieve these goals but its using of non-infromaticians remains difficult.

We elaborated an information system [1] supporting artists, fans, state functioners, researchers, and all persons interested in the history, personalities, groups, institutions in arts, and the corresponding schools.

We needed a simple, clear, and multifunctional toolkit that permits creation and support of a Web portal dedicated to the musical art in Moldova. It should be based on open source and contain an intuitively clear interface for the portal administration permitting to the specialists in the musical art a set of operations over the portal contents: addition, modification, deleting, etc. All operations should manipulate with multimedia information: text, pictures, sound, video, notes. We selected Drupal [2] as the base CMS.

The interface was projected based on the following principles:

System state visibility. The system should permanently inform its user on events into it.

Correspondence between the system and the real world. The system should speak in user's language, by words, phrases, and concepts familiar to the user and not the system itself.

Possibility of control and user's freedom. Sometimes user can erroneously select some function. An "alarm exit" should be available and clearly marked.

Aesthetic and minimalist design. Dialogs should not contain irrelevant or rarely used information.

Assistance to the user in error identification, diagnostics and correction. Error messages should be in the usual language and explain the exact cause of problem.

Not only the CMS but the used multimedia processing tools should have the friendly interface for authors of the portal content and its administrators. This consideration was taken into account at the elaboration of the **toolkit structure**.

Editors processing text, graphics, audio, video, and notes were taken from the Open Source gamma. This does not imply additional

costs for the software, and its use does not suppose special knowledge.

Audio files should be concatenated, cleaned, partially erased, and kept in a free format. The performed tests permitted us to select Audacity as the audio editor for our toolkit.

Operations over the **video files** are the same as for audio files. After the testing we selected Avidemux.

A special wizard-based tool to edit **text files** was developed to write comments to music, lyrics, news, biographies, historical essays, etc.

The elementary picture processing was programmed in JavaScript. It includes several basic operation like rotation, rescaling, crop, red eyes reduction, etc.

Note editor is used to write and edit musical notes.

The DB structure reflects musical creations presented by the activity of professional composers in the Republic of Moldova, especially in the domains of academic music, basic musical genres, performers, groups and collectives, art unions, institutions of musical education, musical science.

A pilot version of the **portal contents** was elaborated based on the informational structure of the portal sections, namely:

information on institutions of education in musical arts;

multimedia encyclopedia of artists that contains information on biographies, educational activities, distinctions, creations, and used bibliographic sources. Encyclopedia contains information on several artists;

multimedia encyclopedia of artistic collectives that contains the following topics: general presentation, gallery of images, actual cast, address;

multimedia encyclopedia of musicology that contains the following information: general presentation, history, contribution of musicologists in studies of history and theory of national music, selection of popular melodies, etnomusicologic studies, studies in national religious music, synthetic works, references, covers of books on musical art, sequences from musical performances, photo galleries;

multimedia encyclopedia in the history of Moldavian music that covers the following periods: medieval, modern, beginning of the 20th century, postwar and contemporary stage, bibliography;

multimedia encyclopedia of several musical genres: symphony, chorus, opera;

multimedia encyclopedia of musical associations and unions that contains the following: general presentation, structure, activities, festivals, concourses, address.

The selected information was structured conform the portal structure. We developed the technology of the portal completion with the information, and the mechanisms of editing the portal contents.

The portal software was tested under Windows and Open Suse 11.1 with Internet Explorer and Mozilla as browsers. The testing was performed by real users that from the very beginning worked without errors and objections.

The described toolkit was projected for persons with the corresponding access rights. The menus of the used tools was restricted by the minimal necessary set of operations because it is irrational to provide non-prepared users the complete set of operations over multimedia. Our approach permitted to integrate Open Source multimedia editors with the CMS Drupal.

References

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- [2] Drupal: <http://drupal.org/>

Alexandru Colesnicov¹, Valentina Demidova, Ludmila Malahov, Mircea Petic

¹ Institute of Mathematics and Computer Science, Chisinau, Moldova
E-mail: kae@math.md