



## USING SOFTWARE TOOLS WHEN CREATING ELECTRONIC **TEXTBOOKS**

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**Annotation.** This article reveals the methods of using software tools when creating electronic textbooks and their application in the educational process.

Keywords. Education, electronic, textbooks, HTML5, Articulate Studio, CourseLab, Adobe Flash, Adobe Captivate, Lectora, E-Learning.

Today, various teaching software tools are widely used in the educational systems of developed countries of the world. Instructional visual software tools are created using authoring software. The use of such programs in the educational process leads to high results, the reason is that when receiving information regarding knowledge transmitted in the audience and performing tasks, the student simultaneously hears and sees and assimilates. Author software is a software tool designed to partially or completely automate the learning process using computer technology. They are considered one of the promising forms of improving the effectiveness of the educational process and are used as a teaching tool of modern technologies. It is very convenient to create electronic textbooks using author's software. Electronic textbooks, using computer technology, maximize understanding of the most important concepts and laws as well as keeping in mind.

Articulate Studio is an instrument package for creating fully functional and highquality interactive learning Resources-Articulate Studio includes a powerful software instrument package that provides a wide range of capabilities for creating e-learning courses. With Articulate Studio, it is possible to achieve the expressiveness of the information being provided, using interactive content, quizzes, queries, evaluations and so on. This program combines test and exam materials, such as electronic course developments, in a single block of tools. Articulate Studio includes powerful and simple instruments in its use, with which the development and formalization of electronic teaching and testing materials is carried out. Articulate Studio allows the introduction of interactive objects of various types into e-learning courses under development, to take advantage of the functional

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capabilities of The Flash format, while achieving high quality and expressiveness of materials intended for e-learning. Packages include the following programs:

Articulate Storyline is one of the most popular programs designed to create courses, it is flexible, easy to use, and designed to create courses of various purposes. Articulate Storyline-a three-utility (Presenter, Quiz maker, Engage) package provides the ability to view instructional courses, presentations, tests, and other forms of content on iPad and create in flash and HTML5 formats that can be integrated into distance learning systems. The program offers almost unlimited possibilities for the implementation of complex interactive scenarios. Now it is not necessary to know how to make a program or apply Flash to create a complex interactive script of the training course — Storyline offers all the tools for this. The feature of this program is in its easy assimilation, as well as in the bright visual style of the projects being created: rollers made on Articulate products look more modern and more dynamic than other e-learning editors.

The main features of Articulate Storyline:

Intuitive user interface A simple interface makes it possible to create courses starting from scratch or based on templates, without requiring additional reading of the utility. The interface's logic and appearance are similar to those of Microsoft PowerPoint.

Slide templates of the moment. Create slides starting from scratch or using templates. Template measurement settings are simple. The ability to download additional templates and slides of courses from the site E-Learning Heroes.

Interfaith Applying triggers to determine when to start specific actions. Work with layers of slides to create several interactions between the components on the slide.

Generation, editing, and controlling the interaction of objects in slides.

Cases and variables. Ability to customize objects to respond to participant actions. For example, when pressed, the button can change its color, characters - change the expression of Job in the wrong movement, etc. If the listener answers incorrectly, slides can be opened for him, consisting of additional questions or more simple tasks.

More than 20 different types of questions. In addition, optional forms provide the ability to create questions using an optional object on the slide.

The chip supports Drag-and-drop. Add objects to the slide with the move.

Recording of screen States of the moment. The record demonstrates how to work with an electronic course.

Simulation DT. Automatically after a single recording of the Storyline screen, the recording is segmented into instructions in several steps. The record is easily edited-

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when there is error, it does not have to be recreated. As a result, listeners can consider the fulfillment of tasks, as well as their passage through the test environment.

Support of HTML5 and Flash technology, as well as mobile devices. Publishing courses in different formats for devices adapted to iPad, personal computers, laptops, Android, iPad, etc.

Creating shows the tool is convenient enough, with the ability to play according to the slide layout and create video rollers.

The inclusion of quality templates of the design of most elements of the clock, which can be used without additional adjustments.

The possibility of creating a single Bank of questions.

eXelearning is an XHTML editor of materials for e-learning. Includes an HTML editor for Web development or instruments for teachers and scientists to design, develop and publish educational and methodological Web materials without the need to study complex applications. eXe was designed to overcome a number of existing limitations. Most programs of web authority require a sufficiently voluminous course to master the educational process, the study is considered to be intuitiveunderstandable or adapted for the publication of materials. Therefore, teachers and scientists did not accept these technologies for the online publication of educational material. eXe ensures the intuitiveness and simplicity of use of the instruments that allow teachers to publish a competently formalized teaching web page;

TODAY, content management instructional systems (Learning CMS) do not offer adequate (for web developments or in relation to the capabilities of the program for the behavior of skilled experienced developers of websites) web content authorization instruments. content management instructional systems with LCMS as part of eXe are instruments consisting of the qualified capabilities of web publications that can be easily introduced or imported.

Lectora and Lectora Online. Lectora has published a version for author platform eLearning and mobile devices, which has well recommended itself for creating and evaluating interactive multimedia - content. Lectora Online-allows group members to exchange and modify course content. Lectora Online has many templates to publish in tablets (publishing to tablets). The Lectora program was introduced to the Ohio-based society Trivantis Corporation in 1999 by Timothy D. Created by Loudermilk. As of now, the program has been used in more than 64 States.

The Lectora program is a program to create e-learning content in the distance learning process and to enable the creation of e-learning complexes.

The program is primarily:

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- when creating distance education courses;
- when creating presentation files;
- when creating control tests;
- when transferring ppt format files to other educational formats (SCORM or AICC;
- widely used when creating intellectual training courses.

Courses created in the Lectora program can be published at SCORM and AICC, the e-learning standards. Also, the Lectora program is compatible with the currently available LMS systems requirements.

The training courses created in the Lectora program are assembled into a single file, running them on HTML, CD discs, in the form of a dynamic website at the click of a button .exe can also be performed visually, without knowing any programming languages in the SCORM and AICC standards. It is also possible to organize an electronic view of control work through the Lectora program, in particular, electronic tests in the form of 7 types (false/true, one correct answer, several correct answers, finding compatibility, essay, short answer input, hot point), questionnaires can be created. At the end of electronic control, the lector program can receive/send results by email and based on external CGI scripting, XML, SCORM, AICC standards.

Although the Lectora program was not created for programmers, in its last versions it was enriched with its extended applications for users who were aware of the programming language. This, in turn, is a great option for users who are aware of the programming language.

Lectora is a universal environment, with a wide range of possibilities, falling into the ranks of visual graphics applications and allowing you to create slides composed of text, images, drawings, graphics, animation effects, sound, video, Java, Flash, etc. Lectora is a powerful and easy-to-use software tool designed to make interactive educational materials (electronic textbooks) designed for use in the Internet system, distance learning systems, compact disc or any other storage device. Currently, the Lectora program is widely used in e-learning in more than sixty countries around the world.

Adobe Captivate (formerly known as RoboDemo) is a developer of Microsoft Windows and software, writing video tutorials, creating application simulation, creating instructional presentations, and electronic course creation and editing software used in e-learning for 5 versions of Mac OS X, which can be applied to create various tests in swf format. The Adobe is generalized in captivate .swf ni aviga video hosting has the option to convert to sites. To create software

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simulations, it is possible to click on the left and right mouse button in captivate and press the keys. Adobe Captivate can also be applied to create skrinkasts, podcasts, and convert Microsoft PowerPoint presentations to Adobe Flash format.

Captivate can be used to create and edit interactive demonstrations of programs, simulations, assistive data, screencasts, games, and lessons. The screencasts created in captivate take up much less space compared to the recordings made from the screen. Users can edit captivate by adding effects, active points, text fields, video, etc.to presentations. Authors can edit the content and the times when this or that item appears. Clicking on active points can provide a transition to another slide, as well as a transition to external references. Captivate images, PowerPoint presentations, videos, Supports importing flv and audio into the project. Adobe Captivate software is a convenient tool for creating and displaying materials. Captivate offers a wide range of possibilities: creating educational materials based on presentations created in Microsoft PowerPoint, taking a photo on the monitor and creating passable tests depending on the answer to the question.

Interactive elements such as text data entry fields and queries with the ability to choose the right answer can be placed in the study materials. The compact size and high permittivity of Adobe Captivate files make it possible to make extensive use of application handling skills, provide auxiliary information, and demonstrate new product capabilities. It allows you to attract user attention to specific areas of the screen with educational content, applying the technology of enlarging the required parts. Training courses under development using Adobe Captivate are based on Flash technology.

Despite the above-mentioned capabilities of Adobe Captivate, it should be noted that this technology is closed, special and does not support Tablet devices and smartphones. In addition, these technologies are very demanding on computing resources, which makes it inconvenient to use in the models of personal computers that are now common — laptops (which consume a lot of power).

CourseLab is a powerful and easy-to-use software tool designed to make interactive educational materials (electronic textbooks) designed for use in the Internet system, distance learning systems, compact disc or any other storage device.

The main possibilities of courselab:

In the WYSIWYG system, create and edit educational materials that can be viewed and get results.

Does not require the developer to know HTML or other programming languages. Objective approach of the clock educational materials of any complexity

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allows you to create.

The use of scenarios facilitates the creation of complex multi-"object" dependencies. It has a mechanism for automatic creation of tests.

The open objective interface allows easy expansion of the library of objects and templates and user-generated libraries in the space.

The animation of objects has a mechanism of the moment.

educational courses allows to host any type of Rich-media Macromedia®Flash®, Shockwave®, Java® and video-format files of any format.

Easy mechanisms of musical sequence placement and synchronization of the moment.

The possibility of placing presentations in the Microsoft®PowerPoint® format in the educational material.

It has a screen capture mechanism that allows you to create simulations of various software applications.

It has an easy language to interpret actions.

Allows a qualified user to directly JavaScript-access the properties of Program Files.

To view e-learning courses, it is not required to have a shelf  $\Box$ 

The e-textbook should maximally facilitate understanding, remembering existing concepts and examples, by engaging the possibilities of the human brain, in particular auditory and emotional memory, as well as using computer efficiency, in a way that is different from the usual textbook to the educational process.

An electronic textbook created for the educational system should satisfy the following general requirements:

- 1. The content and content of the electronic textbook must comply with the requirements of the educational standard.
- 2. The electronic textbook itself should have an intellectual teaching system of problems and research assignments.
- 3. The electronic textbook should provide for the automation of such manifestations of educational activity as the transmission of information in appropriate conditions, such as search, collection, storage, analysis, processing; automation of calculations, design and construction, processing to the results of experience, experiment; automation of informative processing in the process of performing control tasks, stage and graduation work.
- 4. An electronic textbook should keep the imitation of the work of complex objects in the composition of transients on the real, accelerated or slowed time scale of various processes.



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- 5. Training tools of an electronic textbook-it is necessary to carry out the preparation of the learner for his future professional activities in a virtual environment of science.
- 6. An electronic textbook must have an open system of visualization of all feasible computations, demonstrate the relationship of their values with the description of variable studied objects or processes.

We create electronic textbooks using software tools. Today, various teaching software tools are widely used in the educational systems of developed countries of the world. Instructional visual software tools are created using authoring software. The use of such programs in the educational process leads to high results, the reason is that when receiving information regarding knowledge transmitted in the audience and performing tasks, the student simultaneously hears and sees and assimilates.

They are considered one of the promising forms of improving the effectiveness of the educational process and are used as a teaching tool of modern technologies.

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