

ЖУРНАЛИСТСКОЕ ОБРАЗОВАНИЕ И МЕДИАПЕДАГОГИКА

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TEACHING DIGITAL PUBLICATION DESIGN AND DEVELOPMENT SKILLS TO RUSSIAN JOURNALISM STUDENTS: STUDENT-DEVELOPED IPAD MAGAZINE AS AN EDUCATIONAL TOOL

The paper presents the experience of refashioning education in press modeling and design by including theoretical sessions and applied training in digital publication development. In terms of empirical data, the paper draws on two digital publication experiments carried out at Tomsk State University. These applications became the first course project digital publications designed and produced by Russian university students. Building on these examples, the paper discusses technology and tools for digital publication development in the course project framework, training necessary to prepare students for such projects, and their relevance for Russian university programs in media and journalism.

Keywords: media education, project-based education, digital publishing, press modeling, multimedia journalism.

Education in the sphere of media and communication is ripe for modernization, both in terms of values it translates and in terms of technologies and platforms it uses and teaches and methods it employs. Last years' crisis in Russian media evolves against the background of technological advances of the global media market, with corporations readily embracing new software platforms, and with digital publications, together with media developed for mobile devices, gaining instant popularity and familiarity of web-based media.

However, Russian national higher education standards are very slow to embrace these developments. This emphasizes the importance of experimental educational forms and techniques in familiarizing students majoring

in journalism with the new platforms. This paper draws on the outcomes of an experiment carried out in Tomsk State University (Tomsk, Russia) with groups of students majoring in media design several years ago. The experiment was set up to evaluate the possibility of introducing digital publishing elements to journalism curricula and to assess its educational potential.

Discussion

Digital platform educational potential has been at the center of discussions among mass media scholars with theoretical interests and educators alike. Major changes in the educational process are introduced even when the student interacts with the new media simply as a consumer [1, 2]. In her analysis of iPad-assisted inclusive education (she draws her examples from a creative writing course), Rebecca Sullivan highlights the importance of broad range of software and platform options in group creative skills education [3]. Using new media as a creativity boosting tool (as it is understood at the Institute of Creative Technologies, De Montfort University) can add at least three new educational practice areas, namely, Creative Computing, Interactive Arts, and Media, Networks and Collaboration [4], provided the disciplinary approach to research and research-based educational practices is maintained.

Journalism methods and genres are transformed thanks to the broad range of opportunities provided by the new media; this process constitutes a research subfield of its own. In her study of the process of media convergence as an industrial reality and an epistemological phenomenon, Elaine Yuan highlights the trend among the new media users (in other words, among consumers of the products current media students will have to supply with content) to use multiple platforms for news consumption [5]. Yuan's observations are echoed by many other researchers. According to Hsiang Iris Chyi and Monica Chadha, more people in the United States now own wireless devices compared to before [6].

Other researchers working in the field (one example is Henry Jenkins' *Convergence Culture: Where Old and New Media Collide* [7]) leave no doubt that research into new platforms, such as iPad, offers not only new packaging for "old style" journalism, but is also a key to a new understanding of the changing role of journalism in the digital era. It is therefore all the more important to involve students into creative activities clustered around the development of digital publications for iPad. Creation of digital publications of programs in media development by the students on these programs is one such creative practice that is becoming increasingly popular.

Student Digital Publishing Projects in Journalism Education

Student-developed digital magazines were becoming a popular format in many US schools and departments educating journalists in 2011–2015. The pioneer of this format was *The OR Magazine*, produced for iPad since 2011 by University of Oregon’s School of Journalism and Communication students. It features several installments every year and is available as an application; the magazine, however, is not on the App Store’s Newsstand.

The OR Magazine is out every spring, after the students complete a ten-week course in digital publishing and its content is selected by Professor Ed Madison. Its main themes are nature, culture and the people of Oregon. One of the students describes their work as follows: “We were given full freedom to contribute to the evolution of journalism, making our ability to design something innovative truly invaluable” [8]. Adobe Digital Publishing is the main software platform used for the project.

University of Missouri’s student-designed *Vox* magazine launched its iPad version in 2012. The digital version is based on the printed edition and includes all the key stories from it, but it also features material from the magazine’s blog and website. The content is mainly focused on urban lifestyle, cultural events and personal stories. *Vox* has a weekly iPad version; some 10,000 copies of the print edition are also distributed every week. Furthermore, the magazine’s website attracts about twice as many unique users a week. *Vox* is available on campus and in the city of Columbia. “Students pitch the content, under the guidance of iPad editor Amanda Dahling; produce the stories; and design and edit the issue, using Mag+ iPad production software. I hope that this experience gives them a better understanding of the potential for magazines on new platforms, as well as hands-on knowledge of producing an iPad edition,” says Kristin Kellogg, adjunct professor at the University of Missouri [9]. The magazine uses Mag+ software and is available on Apple’s Newsstand.

The iPad edition of *Ball Bearings*, an online magazine designed and edited by the students of Ball State University, Indiana, already counts impressive eleven issues. The original online magazine was launched in 2006, and its iPad version followed in the fall of 2012. *Ball Bearings* focuses on the research in and the practice of digital storytelling and online journalism. Each issue offers about 15 modestly-sized pieces heavily loaded with visual and interactive elements. What distinguishes it from other student magazines is its relatively high volume of commercial advertising. Both

the website and iPad editions have won multiple awards making *Ball Bearings* the most successful student digital publishing project with an important off-campus audience. The magazine uses Adobe Digital Publishing as its core software solution.

Vox and *Ball Bearings* were launched at and are still produced by the respective schools of journalism but have already become successful and independent media with full-time editorial teams. In both cases, the iPad version is much younger than the original format, printed and online, respectively. However, *The OR Magazine* was launched as an iPad magazine not supported by a printed version or a website. Created as a course project for students of digital publishing, it has its every next issue produced by a new team of students.

One feature shared by all of the student projects in question is their capacity to spin off of campus and carry on their own as non-campus media covering cultural events, personal stories, city and even regional events reaching out not only to the on-campus community but also to a wider audience off campus. Free of the limitations set by the materiality of the printed publication, they are able to address and appeal to any audience: domestic readers in other areas of the country, international readers, finally, other students working on their own digital media projects. This connection helps journalism schools across the world share their experience in the field of digital publishing and digital storytelling. At the same time, digital publications have to compete in order to capture and retain their readers.

Methods and Tools

Our work draws on two main methods: integrated publication modeling and experimental publishing. The Serial Publication Modeling and Design Laboratory at Tomsk State University (TSU) Department of Journalism has been extensively testing the application of experimental methods in publishing modeling, making use of integrated modeling methodology [10], layout and visual modeling, and editorial design, as suggested by Stanislav Galkin [11], Mario Garcia [12], Yolanda Zapatera [13], and Francesco Franchi [14]. Many of research projects in regional newspaper and magazine modeling and follow up, whether funded through outside contracts or initiated at the department, were experimental.

Press modeling experiments fall into several categories [15]. The classification below is based on integrated modeling methodology, specifically

on the matrix module [16], used to define and carry out applied tasks in regional newspaper and magazine modeling and design. Experimental press modeling is classified as follows:

1. Integrated publication modeling tasks experiments.
2. Experiments focusing on one or several levels of integrated modeling.
3. Tests and trials at project implementation stage [17].

Drawing on application of experimental methods in sociology and taking into consideration specific stages and fundamental principles of media projects, three types of press modeling experiments can be suggested: full scale real experiment, mental experiment and real quasi-experiment [18].

Experimental projects in publication modeling are characterized by:

- experiment type based on the project designer’s involvement in publication production: *mental experiment* (for example, project proposals), *full scale real experiment* (project market launch) and *real quasi-experiment* (model);

- experiment type based on the modeled project scope: *integrated* or *component* (here the specific level within which the experiment is carried out should be specified);

- *search* and *control* experiments, possibly comprising different stages of a real full scale experiment. While in the former the researcher sets out to merely search out for new forms of visual communication, the latter requires testing the forms that are in most demand in an experimental (pilot) issue;

- *experimental format*. Pilot publication or a follow up issue, and publication scope: one issue or a series;

- *experiment status* defines whether the experimental task is carried out as a commercial or as a self-initiated research project [19].

In this classification, the two projects discussed in this paper, a popular science publication *Green Mars* and a TSU Department of Journalism digital publication *Ten Points*, fall under the same categories.

Experiment type:

1. *Full scale real experiment*. The project scope included a comprehensive development of the digital publication and its market launch on the App Store.

2. *Integrated experiment*. Using the method of integrated modeling, the publication team developed all levels of the publication model: type, theme, genre, layout and visuals.

3. *Search experiment*. The project is different from the preceding publications as digital publishing forms of visual communication, page naviga-

tion and content formats are not as conventionalized as in printed or web publications. Therefore, every new digital publishing project involves search for new approaches which are still to be tested.

Experiment format: *pilot issue*. We have produced two digital publications that can be continued with more *follow up issues* by new cohorts of students.

Experiment status: *self-initiated educational projects*. Original ideas as well as production for both publications came from self-organized student groups. Both publications were produced as course projects.

Many of the experiments' results are still being updated: the number of App Store downloads, user geography, the influence of project media coverage on the number of users, interdependence of publication themes, scope and its popularity among other digital publications. The applications keep receiving new user rankings and reviews via purpose-built Apple services.

One of the most interesting questions the authors asked themselves before the projects were started was: to what extent are students with minimal knowledge in digital publishing able to create a digital publication? Obviously, this question could only be answered after the projects were completed. Judging from our experience, the semester-long course entitled Multimedia Publications Design with its 36 class hours is too short to give students comprehensive knowledge on theories of and practical tools for the development of digital publications. The projects in question were carried out outside of the standard curriculum and clearly demonstrated that it is during the development of a comprehensive publishing project that a great deal of practical skills is learned. One of the reasons for this is students' focus on the end product that will engage a wide audience instead of merely being graded by a class instructor.

Another important challenge that the teams faced during the projects was the fact that producing a digital publication involves an immense amount of theoretical knowledge combined with practical mastery of programming tools. Digital publications are perhaps the most challenging type of student project as they require experience in almost every subfield of journalism and publishing:

- publication modeling;
- printed publication design and layout setting;
- typography and lettering;
- writing, editing and proofreading;
- visual journalism: information graphics and photojournalism;

- video and audio editing;
- animation;
- web design and programming to support interactivity.

To be sure, many issues had to be addressed as they arose and new software had to be tested, mastered and explained on the go to ensure the successful completion of the experiment. As over 80 % [20] of all digital publications were created with Adobe Digital Publishing Suite, we strove to use the industry standard in order to make the skills the students acquire as relevant as possible for their future employment on the media market.

In order to produce an iPad publication using Adobe InDesign and Adobe Digital Publishing Suite, the project team should be familiar with at least the following digital publishing tools:

- fundamentals of computer layout design and typography;
- Object States as the most popular digital publishing tool since it is used to create most of the digital publication's integral elements, such as slideshows, pop-up captions, interactive graphics and other;
- scrollable frame;
- image sequence;
- creating and managing hyperlinks;
- panorama;
- adding video and audio content created with other software;
- adding web content (created with other Adobe products, such as: Muse, Dreamweaver, Edge Animate, etc.).

Along with theoretical knowledge of journalism and publishing outlined above, practical mastery of these tools is an essential part of training in digital publishing.

Digital Publication Experiments

In late 2013, we were able to initiate the creation of the first Russian student-designed digital publication made available to a wide audience. The Department of Journalism editing and publishing cluster served as the project hub. The students were offered to create a publication for the Russian National Student Olympiad in Publishing to take place in Izhevsk. While that year's contest theme was environment, TSU students found a fresh angle for the topic and decided to cover Martian colonization with a view to call readers' attention to environmental issues on Earth by way of describing the challenges of terraforming and human colonization on Mars.

The digital format received further significance as a greener mode of publishing, saving paper and respecting space: one can download much more publications on a tablet than acquire in print. This is how we set about working on the *Green Mars* experiment.

At the same time the work was underway to create a digital magazine of the Department of Journalism. The magazine was envisioned as a group course project for the Multimedia Publication Design course and the students came up with the concept of a digital publication entitled *Ten Points*.

Experiment Outcomes

Structurally, *Green Mars* is designed in accordance with current digital magazine standards: it has an interactive cover page, the contents page is hyperlinked, and there are twelve texts of different volume discussing the terraforming and colonization of Mars as well as some related topics such as space travel, food in space, and an overview of earlier press on spatial colonization. Apart from text and static images, the publication features interactive information graphics, videos and photo galleries.

It took the project team two months to successfully complete the project. Using the method of integrated modeling, the project involved analysis and design to optimize the publication's format, structure and genre, as well as to understand what audience it should target. The method of integrated modeling proved an efficient tool for the task and was demonstrated to be well suited for the digital format.

Between 2014 and 2018, the publication was installed on over 2,500 iPad tablets mainly in Russia, Ukraine, Belarus, Germany, Estonia, Kazakhstan, and the USA. Furthermore, it was favorably ranked by users and received a number of positive reviews on the App Store. However, it was the very fact that such a publication was created that attracted the most attention: it was covered by 17 websites and newspapers in the city alone. In addition, it was featured on two TV channels and in 20 national media. Media attention drove further installs and widened its audience. *Green Mars* install statistics from the App Store demonstrates that the number of installs peaked when the publication was covered in the media.

Ten Points has an animated cover page, numerous multimedia materials, such as animated photos, slideshows, videos, interactive and animated graphics of various types, panoramic photos with pop-up captions, and a 180-degree scrollable panoramic shot, as well as 23 texts of different volume under 10 rubrics.

The making of *Ten Points* took over six months. It started as a course project and was finally completed by a self-organized group of students in May 2014. So far, it has been installed on iPad over 500 times with user geography covering 17 different countries with most users located in Russia, the USA, Poland, Ukraine, and Kazakhstan. Although *Ten Points* was discussed in several publications on regional and university websites as well as in a news story on one of the city's TV channels, media coverage has not had a significant impact on the number of installs. In July 2014, the magazine was featured on Adobe Digital Publishing Showcase Gallery drawing user interest from a number of countries.

The student course project in digital format overcomes many limitations frequently associated with the printed format. A digital publication is not limited in terms of print run, number of pages, printing options and printing quality. And there is a wealth of multimedia content to add, reviving what first looks like a traditional magazine with animated graphics, interactive elements, video and audio content. At the same time, the page layout remains close to that of the printed publication; it is here that screen position can add variety. Depending on the screen orientation, a horizontal or a vertical layout can be used.

Both *Green Mars* and *Ten Points* cannot be classified as magazines proper: in structure, scope and irregular issue they resemble what has been recently called a mook [14]: a hybrid format between a magazine and a book. This brings together the project as creative journalist collaboration, on the one hand, and as a publishing project (a single issue, a unique application), on the other. There is no certainty that either of the projects will be followed up with new issues; the other unresolved problem lies in the fact that the developer team only owns Adobe license for producing digital publications as one-off applications rather than the newsstand license covering several installments in a series or several independent publications.

For the students in digital publishing, the main goal is to learn how to make the navigation inside the new kind of media intuitive and accessible to any user, independent of their experience level. Equally important is constructing a transparent publication architecture that would ensure that no element is missed by the reader and that most of the publication's information is accessed and consumed. In order to maximize the functionality of a digital publication, it is crucially important to understand user behavior. The new format sets the challenge of learning how to manage user attention on the tablet screen (with previous experience only in printed or web formats) not only to students but also to instructors and researchers.

Conclusion

Had the students created *Green Mars* as a traditional print publication, the chances of it reaching out to a worldwide audience of twenty-five hundred users would have been very slim. Had it indeed been the case, the publication would have followed the fate of its many printed predecessors with a run of several copies. TSU Higher School of Journalism's *Ten Points* has been the first Russian digital student magazine for iPad available on the App Store.

Two experiments discussed in this paper demonstrate the efficiency of digital circulation for publications aimed at small dispersed audiences and designed for digital devices in the new digital format. Growing mobile devices sales increase the number of potential digital users by several hundred millions every year while software continues to open great new opportunities in journalism, publishing and educational projects in these areas.

Digital publishing became an integral part of contemporary journalism generating an increasing demand for media professionals. The demand for developers of tablet- and smartphone-oriented publications and content grows every year. Unfortunately, Russian university departments and schools of journalism offer virtually no training programs in this area. This is in part due to a slowdown in general media evolution in the country, which was especially notable in 2014. Slow digital media development is only a reflection of the general situation with respective market segment performance way below current global trends. Furthermore, Russian national educational standards are largely outdated in comparison with the practices of contemporary journalism and do not include courses in digital journalism.

In 2019, the heyday of tablet magazines already ends, and the number of tablet magazines constantly declines. Many big titles, e.g., *Newsweek* and *Wired* shrink their interactivities, and *National Geographic* even replaced its famous full-interactive tablet magazine with pdf-replica. The mobile media and its linear storytelling gained first place in digital journalism [21]. However, students' tablet magazine projects are still a powerful educational tool that fosters editorial and multimedia skills still required for modern graduated journalists. And these projects are still emerging in the Higher School of Journalism at Tomsk State University. The course on digital publication design and development has been in the curriculum for four years and now it is ready to be replaced with the course on designing the editorial experience of new kinds of modern media.

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Обучение дизайну цифровых изданий: студенческий проект iPad-журнала как инструмент образования

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Ключевые слова: медиаобразование, проектное обучение, учебный медиапроект, цифровой паблишинг, моделирование прессы, дизайн СМИ.

В статье рассматривается опыт включения теоретических и практических занятий по созданию цифровых изданий в процесс обучения моделированию и дизайну прессы. Сегодня цифровой паблишинг стал небольшой, но неотъемлемой частью общемировой практики журналистики. И с каждым годом возрастает потребность в специалистах, способных выпускать издания для новых типов электронных устройств в новых медийных форматах, создавать необходимый для данных проектов контент. Однако подготовка таких специалистов на протяжении последних лет практически отсутствовала в программах российских факультетов журналистики.

В качестве эмпирического материала статьи рассматриваются два эксперимента по выпуску цифровых изданий на факультете журналистики Томского государственного университета: издание о проблемах терраформирования «Зеленый Марс» и журнал факультета журналистики «10 пунктов». В свое время эти издания стали первыми учебными издательскими проектами для планшетов, разработанными и выпущенными студентами российских вузов в сервисе *Apple App Store*. На примере указанных приложений рассматриваются технология и инструменты создания цифрового издания в учебном процессе, подготовка студентов к работе над подобными проектами, их необходимость для развития медиаобразо-

вания в России. На основе этих данных были предложены рекомендации по разработке подобных изданий и включению цифрового паблишинга в образовательный процесс на факультете журналистики.

Эксперимент показал, что цифровые издания открыли новые возможности перед СМИ и инициативными издательскими проектами за счет исключения расходов на полиграфию и расширения аудитории за счет электронных каналов распространения. Это говорит об эффективности распространения изданий для малых аудиторных групп при условии распространения соответствующих электронных устройств и формата цифровых изданий. Введение элементов моделирования цифровых изданий в учебную программу, например, в виде курса по дизайну мультимедиа с выпуском экспериментального издания, стало рациональным решением на данном этапе развития цифровых медиа. Но вектор развития новых медиа требует дальнейшего преобразования курсов по их разработке в контексте развития идей дизайна читательского опыта и новых форматов цифровых изданий.