Ukraine Alive—A Teaching Website that Continues to Teach Its Creators

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Abstract: *Ukraine Alive* is a digital resource built to support elementary education and available at http://ukrainealive.ualberta.ca. The site features contemporary cultural material from Ukraine and is rich in interactive units where students can explore content, play games, and perform tasks online. Google Analytics shows that *Ukraine Alive* (and its related *Alive* sites) are popular with teachers and used throughout Alberta and beyond. The creators of *Ukraine Alive* are working on more sophisticated games to test if gaming can teach culture effectively.

Ukraine Alive is also used to teach students at the university level. By generating content for the *Alive* series of sites, university students learn how to write for publication online, producing formal text and combining it with visuals and audio. Teaching university students the humanistic aspect of formal composition for presentation online is an area of instruction that is only now being recognized.

Keywords: digital humanities, elementary education, interactive learning, Ukrainian culture.

The *Ukraine Alive* website is a digital resource built to support elementary education. It responds to the Alberta Education mandate that all grade three social studies students learn about Ukraine, India, Tunisia, and Peru. It allows me, as a Ukrainianist and ethnographer, to promote Ukrainian culture. It gives me the assurance that the information about Ukraine presented to young students is accurate and current. The site has also provided me with important teaching and research opportunities.

I began doing ethnographic fieldwork in Ukraine in 1998, not long after Ukraine became an independent country. I had worked in Ukraine during Soviet times, using archives and producing a book on Ukrainian minstrelsy, an artistic tradition that had virtually disappeared by the time I collected my data. Studying traditions from the past was the only option during that period because working with contemporary phenomena was anywhere from difficult to impossible under Soviet rule. With the independence of Ukraine, I was able to travel to rural areas and to collect information about village life. I was able to interview people about rituals such as weddings and baptisms and to observe ritual practices. The excitement of documenting material that had been hidden for so long made me eager to share it with my students. This,

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plus my interest in digital technologies, led to my desire to create a Ukrainian folklore website.

At the time of this work I was at the University of Virginia, a leader in humanities computing. With the help of a grant and with technological support, I created the "Ukrainian Village Project"; this consisted of a database of photos to be used for research purposes and a website for use in my classes and for delivering information to the general public. Building a database and a website taught me a great deal. Lessons learned from the website and from testing it in my classes were especially useful. My original assumption was that online delivery of information would permit greater complexity. The opposite turned out to be true. Writing for the web needed to be much simpler than writing for publication. The process of reading a text online differs from reading printed text because of the way the two text types are presented. Digital text is typically accompanied by audio and visuals. These help to convey the message of the person producing the content and they also distract from the verbal component, meaning that the words on a screen need to be more easily grasped. Images and audio, if properly coordinated with text, are marvellously effective communicative tools. If not properly aligned, however, they can detract from the message the author wishes to convey. Fortunately, my work with oral traditions prepared me for handling the complexity of words, images, and sound. Nonetheless, I struggled. Perhaps the greatest lesson that I learned from my early work was that what was comprehensible to me did not necessarily communicate well to others; thus, quite often I needed to edit and condense and simplify.

The final version of the "Ukrainian Village Project" did serve my teaching needs and was well-received by the general public. When I came to the University of Alberta, support from the Teaching Resource Centre allowed me to migrate my materials to a new and more modern web template (see www.artsrn.ualberta.ca/uvp/). This website has since grown and is now housed at http://www.artsrn.ualberta.ca/folkloreukraine/.

After I came to Edmonton, I received numerous requests to give presentations in the public schools. Students and teachers liked my material, and to provide them with a source of information that they could use at any time, I referred them to my "Ukrainian Village Project" site. I soon learned that teachers found my website too rich for their purposes. What I had already pared down and condensed needed to be cut further and made more user-specific. Teachers did not want to explore and find the materials that fit their teaching: they wanted this work done for them. To meet teacher demand, we started *Shkola*, a site with pre-selected materials, geared specifically to the Ukrainian bilingual program. Yanina Vihovska, then a student at the University of Alberta's Faculty of Education, was hired using funds from the Kule Chair Endowment and worked extensively on the site.

Her experience with digital media and the knowledge about online delivery of information that she gained through this work helped her to secure good jobs in the Edmonton Ukrainian Bilingual School system. Most recently (2016), she won an international award for best teacher of elementary-level Ukrainian working outside Ukraine. The Ukrainian bilingual site has continued to grow and expand; it is currently available at http://www.artsrn.ualberta.ca/ShkolaZhyva/.

Demonstrating this site at teachers' conventions and to the public, we soon learned that there was an urgent need for an English-language version. Resources that would help teachers deliver the information about Ukraine mandated by Alberta Education were woefully lacking. Teachers were desperate for contemporary content, but the photographs on the support sites provided by Alberta Education were frequently out of date—featuring Lenin statues, for example, even though the Soviet Union had long since collapsed. Just as often, the photographs were mislabelled, thus perpetuating misinformation about Ukrainian life and culture. Inspired by a desire to have a positive impact on students in Alberta and eager to respond to teacher requests, we began work on *Ukraine Alive*. We were able to secure funding from SSHRC (the Canadian government's Social Sciences and Humanities Research Council), and this permitted us to hire graduate students Olena Sivachenko and Tetiana Kopotilova. SSHRC also funded several workshops with teachers, where we got feedback on our site.

Ukraine Alive went through a number of iterations and extensive testing. Feedback came from teacher workshops and from reports by graduate students like Kopotilova and Sivachenko, who took the site into the grade three classroom and observed how teachers and students actually worked with it. The resulting website (http://ukrainealive.ualberta.ca) closely follows the two social studies books used most widely in Alberta classrooms, *Our World—World Communities* and *Connecting with the World*. It uses the photographs I had already taken in Ukraine, plus photographs specifically intended for the site and taken on my subsequent trips and on trips to Ukraine by our students. Every section of the site has text and images.

From the beginning we strove to make our Ukrainian sites dynamic and interactive. Even before *Ukraine Alive* came into being, we started experimenting with 3-D modelling. Our first model was of a farm approximately 150 kilometres from Kyiv. Using photographs and a CAD program, we created a virtual house where students could walk around and explore, clicking on objects marked by hotspots to get a close-up view. Because houses are microcosms of the universe, created to articulate the cultural features of the perceived world, I felt that it was important to give students a sense of lived space and of object relations within a home. When we started to build *Ukraine Alive*, using the virtual worlds we had already

created was a given. We wanted also to expand on what we already had and to add urban apartments and houses from different villages to the virtual world that we were offering to the young. Fortunately, improved imaging technology allowed us to create 3-D models without having to use the very labour-intensive CAD program. A parabolic mirror mounted on a camera and photographs of individual objects allowed us to create virtual worlds much more quickly and easily, and we were thus able to increase the number of 3-D environments on our sites.

Viewing virtual 3-D worlds is a passive experience, and so we wanted to engage students to a greater degree by making them "do" things in the virtual environments that we had created. This desire was the inspiration for a game we called "Domovyk." Ukrainians see the world as alive, and every unit of space—be it a building such as a house or barn, or a unit of natural space such as a forest or river—is believed to have its own spirit and guardian. The *domovyk* spirit is believed to protect the home in which he lives and to make sure that the residents of the house maintain it properly. He can interact with the people living in his house, appearing to them at night and often foretelling the future. This spirit is believed to be benevolent and to live near the stove. We were fortunate that one of the women whom we knew very well, had had an encounter with a *domovyk*; we filmed her account and added subtitles. We asked students to watch this video and also to read a short paragraph about the *domovyk*. They were then asked to go into the 3-D virtual house and to find this creature. There were various hot-spots. Clicking on an incorrect point in the house called up a sign that asked the student to try again. Clicking in the vicinity of the stove caused the spirit himself to appear.

Another early interactive unit was "Rushnyk Maker." The *rushnyk* is a ritual cloth: it is not used to wipe things; rather, it is a decorated cloth (woven or embroidered) that is used for spiritual protection. A bride can wear one around her waist, and during the traditional Ukrainian wedding ceremony, the couple stands on a *rushnyk* to seal their vows. The *rushnyk* protects the home and is usually hung over icons or pictures. "Rushnyk Maker" was a drag-and-drop unit where a student could "take" embroidery motifs that we had "cut out" from photographs of real *rushnyky* and drag them onto a *rushnyk* template, creating his or her own ritual towel.

These early interactive units were followed by many more, and the current *Ukraine Alive* site has 520 images (each with descriptive text), 22 videos (most with subtitles), 43 interactive units, and 2 links to the *Google Street View* for Kyiv, the capital of Ukraine. There are clickable maps that show the locations of important industries and popular resort areas. A video shows a *baba* (granny) in her garden talking about her vegetables, followed by a game where students can identify the vegetables in the video. The most sophisticated and attractive interactive item is a "Colouring an Egg" exercise.

In this unit, the user selects one of five *pysanka* (Easter egg) patterns, then uses a virtual brush to click on colours and transfer them onto the design. The selected colours automatically appear on a 3-D egg, which can be rotated to view the design. We foresee students eventually being able to use 3-D printing to produce real objects based on this *Ukraine Alive* exercise. This unit has proven to be extremely popular, and does well with young students. When we were asked to do a *pysanka* workshop at the Ukrainian National Federation, we learned that some of the participants would be children too small to use candles, hot wax, or the *kistka* (metal stylus) heated in a candle flame. We set them up with several laptops and the "Colouring an Egg" program, and the small children played happily for three hours. We referred a teacher who asked for *pysanka* materials for her first graders to the "Colouring an Egg" unit and she wrote back to thank us and to say that she too was able to engage students with this program. Adults like our *pysanka* program as well. When we presented *Ukraine Alive* at the Humanities Computing Conference on Gaming and Education, held in Edmonton in 2015, most of the adult audience chose to play with the "Colouring an Egg" unit for the hands-on portion of the session.

I had always hoped that Ukrainian work would be ground-breaking and that it would impact other disciplines and other cultures. *Ukraine Alive* has proven to be just that. At the end of the 2014 winter term, a group of Indian and Pakistani students came to me and asked if I would help them build *India Alive* on the pattern of my Ukrainian website. As mentioned at the beginning of this essay, according to Alberta Education, India is one of the countries that must be studied in grade 3 social studies. The support materials for India, while somewhat better than those for Ukraine, were nevertheless out of date and limited in scope. My students said that they wanted their culture to be presented to the young as effectively as was done by *Ukraine Alive*, and so *India Alive* was born. While not as complete as *Ukraine Alive*, *India Alive* has a number of photos, videos, and games. There are puzzles to assemble and *rangoli* to colour. Rangoli are designs drawn to celebrate the festival of Diwali. These are not three-dimensional, but the colouring aspect of them has proven attractive to students. Over the intervening few years more and more students have contributed to *India Alive* and we now have rotatable costumes, maps, and numerous pictures, some donated by people outside the University of Alberta who were interested enough in the work of our students to allow us to use their images (they are credited on the opening page). *India Alive*, like *Ukraine Alive*, has been tested in classrooms and modified accordingly. We follow all of our sites using Google Analytics. *India Alive* is used not only in Alberta, but across Canada. Recently it has been picked up by public school systems in the United States.

India Alive was followed by *China Alive* in 2015 and, most recently, *Peru Alive*. China is not one of the countries mandated by Alberta Education, but the Chinese community in Edmonton and elsewhere is vibrant and growing, and in Edmonton alone there are eleven Chinese bilingual schools. Chinese heritage students and students from China studying at the University of Alberta have eagerly documented their culture, and the *China Alive* site has videos which tell the stories behind the Spring Festival and the Dragon Boat Festival. There are photographs of city life and village life. A video patterned on *Ukraine Alive* shows a granny in her garden talking about her vegetables. A video explaining the special techniques used for growing apples is followed by a game where, if a student reproduces the stages of apple-growing correctly, s/he is rewarded with a shower of ripe apples. *Peru Alive* was begun in the fall of 2016 and is currently a rudimentary site, with some historical information, a number of pictures, and a set of rotatable costumes.

The *Alive* sites have been important pedagogical tools. The sites are used in the Alberta schools and well beyond the Alberta system for which they were designed. In fact, they are used in school systems outside of Canada. Building the *Alive* sites has also proved an important learning experience for students at the university level. For several years I have been offering a course called "Folklore and the Internet." A project option in that course is to build a unit for one of the *Alive* sites. Students have found this option very attractive because they feel that it allows them to make an important contribution to the documentation of a culture, very often their own. Producing materials that go on an official university site and are then widely used by elementary students is very gratifying.

For me, there is another purpose to teaching students how to design formal web content. Creating such content is not easy. I began with an account of my early efforts at producing material for the web, because this work was a process of discovery. Those early discoveries are proving most beneficial now because they allow me to understand that producing formal web content needs to be taught. They also help me understand how to do that teaching. Much in the same way that we, as faculty, teach students formal writing and formal oral presentation, so we must now teach formal online presentation. Programming and the difficulties of programming have dominated our perception of producing web materials for so long that we fail to realize that even if good software exists, using it to produce good content is not an automatic operation. I work closely with programmers and they repeatedly tell me that good programming alone does not produce a good site. Programmers need a humanist's vision; they need someone like me. Because I came to digital humanities when the discipline was in its infancy, I had to learn by trial and error. Our students should not learn the way I did; they should be taught. Formal communication in all its forms needs to be

taught. Just as formal writing is not like exchanging emails or text messages and formal speech is unlike talking to people in a social situation, so creating formal web content is unlike interacting with people on social media or even composing blog posts or writing fan fiction. It is my contention that people are only now beginning to realize the importance of teaching online content delivery. As already noted, formal digital communication is especially difficult because it involves not only text but visuals and sound, and combining all of these resources effectively is a skill that must be learned. Even skills that students may have mastered elsewhere, such as formal writing, cannot be transferred directly because writing for the web is not the same as writing for print media. My students struggle with producing good web content, but they also appreciate the opportunity to learn to do so. Those students who develop excellent web content skills have gone on to win awards at the Undergraduate Research Forum held at the University of Alberta. They have also gone on to prestigious graduate programs. I too have benefitted from this work. For me, it has been intellectually intriguing and challenging to figure out how best to teach digital composition.

Much as I am intrigued with the production end of digital media, I cannot forget studying the user and the effect of the content that we produce on the elementary students for whom the *Alive* sites are intended. Do the *Alive* sites help students learn? Will the interactive aspects of the sites intrigue students to the extent that they will be tempted to use our sites outside the classroom? How effective is gaming when it comes to attracting student users? Is culture something that can be taught through an online game? Games have been used to teach science and math. Can they be used to teach culture also? Kamal Ranaweera, the Director of the Arts Resource Centre, has been especially supportive of our work. He too is intrigued with studying the possibilities of arts-based programming. With his encouragement, programmers Mark McKellar and Melania Ru'Ani have been developing gaming applications to include in the *Alive* sites. The games are not yet open to the public, but the *Ukraine Alive* version is close to functional. At present, the gaming aspect of the "Interactive Ukrainian Village" is simple and based on simple accumulation. Our digital village contains a set of houses and each student in a classroom gets to choose a house. The student also gets to select an avatar that moves about the village. The avatar must go to a larger, teacher's house and receive a task based on the content of the *Ukraine Alive* site. When students complete the task, they receive a reward that they can display in the house. Thus, the first test will be to see if the simple desire to accumulate rewards or points will encourage students to work with site content and learn from the material presented.

Within the past year we have begun work on a more complex game with a storyline. This game presents the user with a problem that needs to be

solved. For the Ukrainian version of this game, the student will need to find and return a stolen treasure so that a ghost who guards the treasure can rest in peace. This game will test the capacity to deliver cultural information in a different way. Ukrainian culture holds that accumulation of wealth is a bad thing and that acquiring treasure can cause harm. This is a concept that is quite different from the premise behind most games, including the basic "Interactive Ukrainian Village," which holds that students want to accumulate things, be they objects or points. However, now we are asking students to follow Ukrainian belief and give a treasure away. Will they be willing to do that? This is something that we hope to study soon. We will be applying for grant funding with colleagues from the Computer Science program and the Faculty of Education to further develop our game and to test it in the schools.