Civic Usability in Internet Journalism Classes

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As online journalism takes on a larger role in informing the electorate about issues of importance, an understanding of how citizens interact with online journalistic content may be as important as what the content is. If a citizen is not able to find or use the information necessary to make decisions about community issues, the information is worthless. The capability to find and use online information is what the concept of usability is about. This paper presents a case study of how usability can be integrated experientially into an online journalism course. This process helps students better connect the needs of the citizens to the design and content of a Web site by seeing directly the basis for many usability standards.

Much has been written about where journalism is going with the advent of the Internet. It is suggested that journalism will have a new look through the computer, incorporating video, audio, and new ways of storytelling. Textbooks on online journalism stress essential skills for this new journalism environment, including knowledge of Web authoring, digital imaging, and nonlinear audio/video editing software. Less attention is given to how audiences will use this new journalism and how they will navigate around news sites.

An understanding of how people interact with online journalistic content seems as important as what the content is. Mason argues people must have the basic equipment to access this network; the essential information must be found on the network; and people need to be able to interface with, find, and use the information. If a citizen is not able to find or use the information necessary to make decisions about community issues, the information is worthless. This capability to find and use information is what the concept of usability is about. Usability has been a main feature of computer science, and, more recently, business schools. Usability is also essential for online journalism. It is not enough to gather information on an important issue; the information and the entire

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news site must be organized in such a way that people can find what they are looking for efficiently and effectively. The form of the news is as important as the content of the news in building civic engagement in citizens, as Mason suggests.

This paper presents a case study of one approach for merging the teaching of online journalistic storytelling with the teaching of usability, using an experiential learning model. In this course, usability is integrated throughout, not just as a section at the end of the semester. Students of online journalism cannot learn to think about new ways of telling stories in an interactive environment without also understanding how users navigate news Web sites.

**Usability and User-Centered Design**

Usability is defined as the ease with which a system can be learned and used. Building on this, Norman argues that all usable products must "ensure that the knowledge required for a task is available in the world or readily derivable from it." Shank adds, "Your site may give the most wonderful information ever presented, but if the user can't find it, it isn't there." A usable system is easy to learn, has a low user error rate, is satisfying to use, and brings users back to the site. To achieve a usable system, "user-centered design" is recommended, a process where users are involved in the entire Web design process through an iterative approach where the users' reactions lead to site changes that are then further tested. This approach to site design challenges the designers'/producers' preconceptions of how users use a site. By interviewing users and watching how they use similar sites, designers can anticipate what users desire, their patterns of use, and what prevents them from completing their tasks.

Designers should model tasks users will be attempting to complete on the site, or "key user scenarios," to prevent user frustration. Sawyer showed that even when people were supplied with money to shop, usability and design obstacles still led to two-thirds of users not buying anything. Similarly, Li analyzed five newspaper Web sites for how efficiently information could be found. Among other things, efficiency was related to how easy it was to locate information and how quickly information could be accessed.

The iterative nature of user-centered design means that designers can revise features based on users' actions and reconsider assumptions about how users will use a site. Testing is conducted in each stage of the site production process. This means bringing users in during the earliest stages of site production so their information needs and task goals are reflected in the final design. By testing one approach against another with actual users, designers can know empirically which version will be more usable.

Gould, Boies, and Lewis summarized the usability ideas. All computer-human interaction projects, such as Web sites, need to (1) focus early on users, (2) have an integrated design process that allows for user feedback, (3) rely on early and continual user testing, and (4) use an iterative design that builds on the results of these user tests.
How Is Usability Measured/Tested?

Usability testing often begins with interviews of users to capture comments on the site content and their Web use patterns. Through these interviews, designers can ascertain the computer and Web experience level of the users, any personality characteristics that might affect Web site use, users' goals for the Web site, and users' previous topic knowledge and how they organize that knowledge.

Two types of user tests are conducted once templates, prototypes, and working sites have been developed. First are "Get it" tests that examine the reactions of users to a site plan, sketch, or prototype, and have them describe the purpose of the site and how it is organized. These tests help the designer know if the site plan and purpose make sense to users. Second are "key task" tests, where users are asked to "do" a typical task, such as finding a piece of information, activating a piece of multimedia.

In these user tests, the behaviors and the reactions of users are recorded unobtrusively, either by direct observation, videotaping the user and the screen, using software to record computer actions, or some combination of all three. Usually, the entire test takes no more than an hour. An observer monitors the user's progress, tells them what to do, and helps them if they get too frustrated and watches their task completion success. Nielsen advocates running many small tests instead of a single, large study. He estimates that five users per test are adequate. However, the more diverse the user pool, the larger number of users per test.

The strength of usability tests is that they are "empirical, not theoretical: [they tell] us how the system really is used rather then how it is supposed/assumed to be used." While businesses often use highly elaborate facilities to test usability, simple observational methods, as we propose, can be conducted in any computer lab, with the observer seated next to the user.

Usability tests can be both quantitative and qualitative. Quantitative tests of usability can include success rate for solving a task, time to solve a task, number of errors in attempting a task, and subjective rating of experience. Qualitative testing can include focus groups, in-depth interviews, and think-aloud protocols that focus on perceptions of the site and evaluations of the experience.

In a think-aloud task, the users are asked to verbalize what they are thinking as they navigate the Web site. Users talk about what questions come to mind, what is confusing, what he or she is attempting to do or find, and other reactions. Think-aloud tasks are also flexible enough to be used with rough sketches of a site or the completed product. Recording and analysis of think-aloud protocols follows that of focus groups, in-depth interviews, or other forms of qualitative data.

In any user test, it is important that users understand they are not being judged or tested, but rather the system is. The observer facilitates the verbalizations of thoughts. Still, it is a fine line between coaching and simply prompting for more information. For example, Lewis and Rieman say that good prompts are: "Tell me what you are thinking" or "Keep talking." Bad prompts are "What do you think those ... mean?" or "Why did you do that?"

By minimizing references to specific
choices or content, observers are less likely to steer users in a certain direction. Through usability testing "problems with the interface are uncovered, 'solutions' to these problems are incorporated into the product and the documentation, and the test is repeated." Having outlined a general model for usability testing, we turn to how usability concepts were integrated into an online journalism class.

**Teaching Usability—A Case Study**

The News Production for the Internet course at a large, Southern university is a class in journalistic Web site development. It focuses on writing non-linear stories for the Web; creating visual elements such as photos, video, and interactive charts and graphics; and designing, creating, and testing a live, journalistic Web site.

This capstone course for undergraduates also counts as credit for graduate students. The mass communication program has a converged curriculum where students learn to work effectively in both print and broadcast environments. The Internet class is designed to reinforce and enhance this convergence and also expand the students' skills and knowledge to the Web. Students are expected to report stories in enough detail to be able to satisfy print medium needs, shoot video suitable for use in broadcast, and write in non-linear style for the Web. They also explore ways to make the best use of the unique aspects of this medium to tell stories in new and creative ways that only the Web can support—for instance, interactive games, charts, and graphics. Where this class differs from most journalism schools' Web classes is that students conduct usability tests throughout the semester to make the site more user-friendly and to learn about design and content problems and their solutions.

The class is team-taught by a professor with broadcast experience and one with newspaper experience and a design background. Both professors have Internet knowledge. This combination of expertise is necessary to lead this converged class since no one individual possesses the depth of knowledge in all three media to adequately teach students.

This course is unlike other curricula that usually offer one course that focuses on designing and constructing a Web site, and another that teaches non-linear story writing. This class does both of these and also adds an education in testing an online product with real users—the usability testing aspect of this course makes it unique. As stated at the beginning of this article, the purpose of the class was to give students the opportunity to "discover" experientially usability standards by conducting usability tests throughout the semester. Certainly at this point in the development of the Web, there are many "standards" of usability, but we feel an experiential model reinforces what the experts say in the same way that actual reporting reinforces what journalism texts state.

During the three semesters this course has been taught, the topic for the Web site was the state budget. The students conducted background research about the topic and served as reporters and producers for content on the site. The class focused on developing content that made the connection between journalism and the creation of
information that diverse citizens need to participate in democracy. Students are challenged to develop content, design, and navigation features that are user friendly.

**Course Structure.** In the first week of the semester, students read Steve Krug's book on usability, *Don't Make Me Think*, and various publications on civic engagement from the Pew Center for Civic Journalism (www.pewcenter.org). In the second week, they begin conducting in-depth interviews with two citizens about their Web use, interest in state government, and budget issues. The goal of the exercise is to help them write stories that are interesting and useful to people and design a Web site that is easy to use and facilitates civic engagement.

The students are instructed to find two people who are willing to be interviewed about their Web use and interest in state government. One person must be between the ages of 18 and 25 and the other must be 26 or older. At least one person must not have any connection to the university; this is so that there will be diversity in the interviewees’ use of Web sites, and educational and socioeconomic demographics. Students were required to provide written informed consent to the interviewees; the university’s Institutional Review Board has approved the signed consent forms. The interviewees agreed to participate in two separate interviews: the one at the beginning of the semester and one at the end of the semester.

The interview guide has student-investigators ask participants about their Internet usage such as how many hours a week they spend on the Internet, whether they prefer to surf or search for something specific, their favorite news sites, and what they like and dislike about them. It also directs student-investigators to probe for insight into what participants think makes a Web site easy or hard to use, and asks them to describe the last time they went online to look for information. Students ask participants about their interest in state government, state spending, and the likelihood of using a site focused on these issues. They are also asked, “Imagine that we are going to create a site just for you on how the state spends your tax dollars. What would you suggest we do/not do in creating that site?” Participants are asked about their Internet connection at work and home, their age, gender, and occupation. (See Appendix A for interview guide.) The student-researchers record and transcribe the interviews. This allows the instructors to expose students to proper techniques for social science research.

Before designing the site, students analyze the usability, design, and content of two Web sites in a graded assignment, following recommendations from Krug’s book and class lecture.

**Site Construction Process.** Next, students are divided into three groups: one responsible for site design; one for editorial content; and one for technical aspects such as the search engine, getting the site to and from the server, and making sure the audio and video work properly. This group work forms the bulk of the semester as students work through problems and make decisions about site structure and information presentation.

All students generate two stories and one interactive infographic that focus on some aspect of the state budget. Throughout the semester they are
guided toward writing stories in "chunks" or non-linear style for the unique ways people read on the Web, and in the use of civic journalism principles designed to encourage greater civic engagement. Students are also required to include at least three hyperlinks to internal and external Web pages, make a printable version of the story, and make a shortened version for use by portable devices such as cell phones and PDAs. In addition, one story must have one of the following: audio, video, or an interactive graphic or a still photo essay of six or more images with captions.

Testing Users. Once the stories are written and the site is designed and posted on the university’s server, the second phase of usability testing begins. First, experts in Web design and the budget critiqued the site for content, usability, design, and navigation. Students reworked the site based on this feedback. The final two weeks of class are devoted to testing the site with users; the citizens who participated in the open-ended interviews are asked to return to the campus to take part in testing the live site. In the three semesters this class was taught, a total of forty-five participants were given a brief introduction to the purpose of the site and the usability testing, and were again given written informed consent sheets to sign.

The usability tests were conducted in a regular computer lab (not one designed especially for research). The student-testers were seated to the side of the user. In accordance with think-aloud protocols, participants practiced saying aloud everything they were thinking by solving anagrams and simple math problems out loud. When participants were comfortable with saying aloud all their thoughts, they were logged onto the test site on a computer in the lab. They were first instructed to surf the site freely for five minutes, looking at whatever interests them most or skipping over stories that were of little or no interest.

The script that students read to the test participants said, in part, “We’re testing a Web site that we’re working on to see what it’s like for actual people to use it. I want to make it clear right away that we’re testing the site, not you. You can’t do anything wrong. We want to hear exactly what you think because we want to improve this site, so we need to know honestly what you think.” Participants were instructed to engage in a think-aloud protocol with the following instructions: “Please say aloud everything that goes through your mind, leaving out nothing, no matter how trivial you think it may be. You should say anything that you think, even if it’s only a fleeting thought, including your impressions of the story or visuals, what you considered that was important that wasn’t available, ideas about how something could be easier to do or find, or points where you become lost and so on. There’s no need to explain your thoughts, just express them as they come to you. I’m going to sit behind you so you don’t feel like you have to talk to me. Just focus on the task and keep talking.” If a participant fell silent, the student-researchers were instructed to encourage them to “Keep talking; say out loud what you are thinking.”

While the test participants were browsing the site, Nettracker software recorded the pages they visited, how long they stayed on each page, which
links participants clicked through and in what order, and their use of the search engine. These data are used to show students which stories are read most and other information about how real people use the site. If this or similar software is not available, video cameras can be used to record the user's mouse movements on the screen.

After the free browsing time, participants were asked to stop and were given three “Key Task Testing” assignments to complete in another five minutes. They were asked to find the place on the site that explained the process that a bill takes to become law, the place that told where most of the state money came from and how much is spent on education, and what teachers think of the low salaries in the state. They were reminded that it was the site that was being tested, not them.

Finally, participants completed a questionnaire that asked them to evaluate the site. Seven-point Likert-scaled questions measured their liking for the stories (Cronbach’s alpha = .73); the story quality (r = .52, p < .01); satisfaction with the site (Cronbach’s alpha = .77); the design of the site (Cronbach’s alpha = .85); the audio and video quality (r = .614, p < .001); the site overall (r = .63, p < .001); and civic engagement (Cronbach’s alpha = .86). In addition, they were asked about their online use (Cronbach’s alpha = .77); their interest in politics and government (r = .531, p < .01); their media use (r = .53, p < .01); (if they owned a computer at home) the type of Internet connection they had (modem/high speed Internet); age and gender. (See Appendix B for exact question wording.) The second part of the testing lasted about one hour. For participating in these interviews, they were compensated with a $10 gift certificate to a local restaurant. This second stage of testing gave students first-hand knowledge of how their work was used.

**Student Reaction.** From the first week of the semester to the end, students were required to keep journals of their thoughts and impressions about the work they had done the past week to assess students' learning of usability testing. The instructions for the journals, which were graded according to how well they fulfilled the goals of the assignment, were to “record your thoughts and impressions about the work you have done during the past week for this class. You should reflect on what you have done and learned using both a global perspective and a micro perspective. We DO NOT want to read descriptions of what you have done; rather, we want to know your thoughts, feelings, reflections, analysis, etc. of what you have experienced this week.”

Students were encouraged to “Be HONEST; you will not be penalized for writing that you thought some aspect of the class or assignment was stupid—we want to know that too! Just be sure to tell us why! Mainly, we want these journals to be self-reflective pieces for your own benefit.

Usability was a word none of the students had even considered prior to the first day in the course. Initial reactions ranged from discontent with the amount of work this appeared to create in the semester to a fear of talking to strangers to a curiosity about what the experience might provide to the site development. The class seemed to pass through four stages in developing an understanding of usability testing and the application of the concept to their work. First was the pre-development
stage where students voiced concerns based on their own perceptions. Once assigned to interview two separate individuals and transcribe each interview, students entered the development stage. At this point, students described themselves as being overwhelmed by work and holding a general lack of understanding of the value of usability testing, let alone the class. The general sense was “let’s get to the site design work.” A greater enlightenment closely followed the second stage as the students began to see their journalistic goals through the eyes of the people they interviewed. This was the enlightenment stage. The final stage occurred at the end of the course as the students reflected back over their class journey and discussed in their journals their sense of pride in their collective work. This was the accomplishment stage.

In the pre-development stage, one student echoed the feelings of many in the class when s/he said, “I think we will find it really hard to make something this boring (the state budget) significant.” There was an overall sense of no one caring about the topic and thus this would be a monumental task to even have anyone look at the site when completed. We will grant that developing a journalistic Web site focused entirely on the state budget is a bit daunting. Given that most college students have never had to engage with this large and unwieldy document, it became even more difficult when they discovered in a briefing with legislative budget experts that there was no single budget for the state. Instead there were three budgets lawmakers, executives, and staff used to manage the state’s finances. In the development stage, students expressed a concern about learning all of the technology, including FrontPage, encoding video and audio for the Web, and creation of interactive graphics. In fact, the class showed a much greater interest in just getting to the work of designing and building a site that looked good to them. It was not until the assignment requiring students to conduct two interviews on Web design and what citizens wanted to know about the state budget that the students began to change their thinking.

Students entered the enlightenment stage once the first interview was completed and transcribed. There was shared amazement at how similar their interview experiences were in many cases. Many reported learning more from the interview experience than they had expected. The fear of the state budget topic began to diminish as students told of interviewees providing ideas on how to grasp the issues citizens found to be important within the budget. From these interviews story ideas and thoughts on design structures began to develop. Student journals described the interviews as a key part of gaining a better understanding of what needed to be done in building the Web site. The interviews also challenged stereotypes of Web users. For example, several students said they were surprised to find that many older people do use the Internet, but that they were often looking for different information than college-age individuals. Along this same line, others noted that edgy design was good to attract and hold the interest of younger users, while it was not as effective with older users. This focused their attention on the need to work to stay true to a wider variety of user needs when developing the site.
The two interviews also worked to reinforce the class lectures and assigned readings on design and usability. Site ergonomics, chunking of text, use of non-linear writing styles, and inclusion of interactivity were all key elements of design and production mentioned in various ways in interviews. Despite students having read Krug’s book on usability, it was the interviews and testing exercises that made manifest the connections among form, content, and use in a journalistic site. They were able to see how their product was used and received.

Between the end of the data-gathering in the second interview and the launch of the site, the class abandoned usability testing in favor of paying closer attention to the quickly approaching course deadlines and the need to actually get stories covered, basic design completed, and a fully functional Web site up and running before the semester ran out. Ideally, we would have required user tests throughout this process; however, based on the journals, we also would have likely had a mutiny on our hands. During this reporting and site building time, students were required to work in groups on design, content development, and technology application to create both the final site design and the content that would populate the site. This included audio and video elements for at least one story per student, interactive graphics, and a piece of innovative work we called a “go-beyond” that literally showed how the student could creatively and journalistically go beyond the baseline level of what was expected in the course. The phase led to the last section of the course that focused on user tests of the actual site.

The initial round of user tests of the site provided a lot of insights to how well the reporting and design worked for citizens from different backgrounds and perspectives. As a result of this first user test, the students learned that they needed to break up the text-heavy site with more pictures and graphics. They also learned that people would not stick around to read long stories, instead choosing to click into another part of the site. This led to a move to shorten the stories and reduce the amount of text on a page.

Confusing navigation was also readily apparent. There was no mistaking when a user got lost on the site and it often surprised the students, who by now were intimately involved in the site and were in many ways too familiar with it to see some of the glaring problems. Naming conventions were another area where there was a steep learning curve. For example, in order to have fewer links, the students grouped topics such as education, transportation, and the environment under one section named “How We Live”; tourism and state parks were under a section link called “Where We Play.” This allowed the site to have four main links that covered a dozen topics.

The section names that made so much sense to the class when they were selected were quickly found to be confusing to users. Not only did names of topics and sections need greater focus, so did the way the students led the users through the site. For example, several students talked about better ways to chunk information and provide bookmarks to different chunks to allow more of a non-linear style of working through the material. They even took to heart the user comment
that a greater number of shorter stories would be more effective than fewer long stories.

Between the two sets of user tests, students had a week to update and alter the site to improve user test results. While this effectively improved the site, it also provided a reward of sorts as the users demonstrated a greater ease of using the site. Ultimately, the students ended the semester with a great sense of pride and accomplishment. As they were coming to the end of the semester, and entering the accomplishment stage, one student wrote in a journal that s/he could see the class momentum picking up. There was a real sense of a growing excitement about their work. The complaints about the amount of work were diminished, and some students reported that they had used the site as a way to impress potential employers. In fact, several students were able to get jobs because of the skills developed in the course and their knowledge of usability testing.

When comparing the students' experience (as reported in their journals) to their expectations, many reported that they learned more than they had expected. Students who had harbored strong fears of technology acknowledged that they had developed the ability to harness it to help them tell their stories. As a whole, the class responded that they valued the experience of covering the state budget in that it forced them to find ways to tell the stories relevant to citizens from a topic that looked like a mangled mess of unmanageable numbers and mind-boggling processes. In the end they developed a true sense of ownership that outweighed their earlier concerns that the course goals were not well defined. Another student put it best, writing, "I was psyched to see what the class could do."

In the end, for the instructors, the primary elements that led to success each semester were setting deadlines while leaving the ultimate focus and goal development up to the students. The class had to decide what topics to cover in the budget and how to present those stories in a compelling way to citizens. This forced the class to take ownership of the larger project and to work collaboratively to achieve their goals. Conducting citizen interviews followed by usability tests helped the students better understand their roles as journalists and Web site designers. The key point was that the Web site was for the citizens and not for the class. It changed the students' mindset. Finally, while the students did an incredible amount of work in the class, what they were most appreciative of was the constant and consistent feedback we provided along the way. Even in the face of true frustration and possible group failure, the classes worked to build a truly innovative Web site that was a great source of pride and accomplishment. Best of all, for more than a year when someone conducted a Google search for this state's budget, the search engine displayed a story on the class site before it brought up the state budget site.

Concluding Thoughts

In reflecting on this experience, we arrived at several conclusions. First, it is important to weave usability testing into the entire course because it affects not just the look of the Web site, but also the type and format of the content itself. Further, it requires the students
to talk to potential users of the site multiple times through the process. Second, reflection journals help identify student issues before they erupt into more significant problems. To this end, it is important to stress the importance of these journals to the students. Third, instructors need to be willing to push students through the difficult and, at times, tedious work at the beginning of the usability testing process. Students may not see the benefit of talking to users at the start of the process, but eventually they recognize the value of this input. This course, as we propose it, covers a lot of material. Further, it requires a potentially large skill set from the instructor(s). Still, the usability model presented here does not require instructors to have advanced training in human-computer interaction. Fourth, students need a basic grounding in civic engagement to understand the value of conducting civic usability testing. This allows them to make a connection between the form of the news and the ability of people to feel more connected to civic issues. Finally, it is important for students to conduct the final user tests to fully understand how to implement the procedure and to set them up for sharing in the likely resulting success.
Appendix A
INTERVIEW GUIDE

Instructions: You should be sure to cover all the points on the guide. You should not approach this as a question-and-answer session where people answer ONLY the questions on your guide. You want this to be as open-ended as possible. Let people direct the interviews and discuss whatever is important to them. You want to find out the kinds of things they care about that might not be included on this interview guide.

1. How many hours a week do you spend using the Internet?

2. Do you prefer to surf the Web, or do you usually have something specific in mind?

3. Do you have any favorite news Web sites?
   a. What do you like about them? Dislike?

4. What makes it easy for you to use a Web site? Hard?
   b. Also ask specifically about use of news sites.

5. Think back to the last time you got on the Web to look for information. Describe that for me.
   a. What kind of information were you looking for?
   b. What frustrated you about the information that was there (or wasn’t)?

6. How often do you seek out information about state government?
   a. State spending?
   b. What types of information do you generally seek?

7. How likely would you be to use a site that has information and stories on state spending?

8. What do you think this kind of site would have to have to interest you?

9. Imagine that we are going to create a site just for you on how the state spends your tax dollars. What would you suggest we do/not do in creating that site?

10. What kind of Internet connection do you have (work and home if they use the net at both places)?

11. Demographics:
   a. Age
   b. Gender
   c. Occupation
   d. Phone number
   e. Address
Appendix B
USABILITY TEST QUESTIONNAIRE

Exact wording of questions on the post-site usability test, with responses on 7-point Likert scales:

1. Story liking: How useful did you find the stories on this Web site? How interesting did you find the stories? How believable did you find the stories? How important was the information in the stories?

2. Story quality: How easy was it to understand the stories on this Web site? How would you rate the writing quality (spelling, grammar, typos, etc.?).

3. Satisfaction with the site: How easy to use was this site? How frustrated did you get trying to use this site? (reverse coded); How satisfied were you with the download time of this Web site? How satisfied were you with the number of clicks it took to get what you wanted? How satisfied were you with the search engine on this site? How satisfied were you with the navigation bar and menus? How satisfied were you with the links and the way they worked?

4. Design of the site: How pleasing was the design of this site? How much did the design of this site distract from the information? (reverse coded); How easy would you say the design of this site made it to use?

5. Audio/video quality: How was the quality of the audio? How was the quality of the video?

6. Overall site: Overall how would you rate the quality of this site? How likely would you be to use this site again?

7. Civic engagement: Did this site encourage you to become more interested in how tax dollars are spent? Did this site encourage you to be more involved in a social issue such as education? Did this site help you to learn how to contact a congressman or other official?

8. Online use: How often do you go online? Daily, 2-3 times a week, once a week, once every 2 weeks, once a month, less than once a month, never. How competent do you feel at using online sites? How much of your news do you get from online sources?

9. Interest in politics/government: How often do you visit a government-related Web site? How interested are you in politics?

Media use: How often do you read a newspaper? Daily, 2-3 times a week, once a week, once very 2 weeks, once a month, less than once a month, never. How often do you watch TV news? (same response scale).
Endnotes


27. Krug, *Don't Make Me Think*.