Middletown Press and Journal- A Usability Test

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Executive Summary

Our test of the Middletown Press and Journal was designed around the notion that users should be able to recognize and locate desired information on a news website as quickly as possible. Tasks for our participants included locating a specific article, locating an article on a certain subject, and locating an event.

When locating test subjects, we attempted to cover both younger and older demographics, our logic being that the younger audience would want to use the site for information about high school athletics, particularly those in which they participated.

We tested a total of six individuals, using think out loud protocols to elicit commentary while noting the path taken on the website, also noting click times and giving post-test questionnaires with Likert scales. This feedback, both qualitative and quantitative, allowed our group to assess the site’s functionality and navigation.

Most of our participants indicated some level of confusion with the website’s multitude of labels, though most were able to find the relevant category. However, the total amount of categories that went unused led us to believe that a consolidation of labels would benefit the site. A revamped search bar would also further aid navigation, as the current model does not show calendar events and is less prominent than the rest of the headings. Several participants glossed over the search bar entirely, and the ones that didn’t were stymied by the fact that the search function is not linked to the calendar or any upcoming local events.
Overall, we believe that, while the information on the Press and Journal website is sound, the site would be greatly improved by trimming down information and changing its organizational structure.

Introduction

While the delivery method for news has evolved through the generations, audience expectations for an organized and efficient method has stayed consistent. Now more than ever, in an age where information can be accessed instantaneously over the Internet, good information architecture is more important than ever.

Our usability test concerns the Press and Journal website, the main online news outlet for the Pennsylvania town of Middletown. Through testing, we hoped to gain insight into user search behavior and common tendencies when using a news website.

Audience Analysis

Target Audience

The audience in which we are targeting varies slightly in terms of age, socioeconomic status, and purpose for using the site. Our target audience for the usability test is of a similar demographic to those in the Middletown area. We want to target a similar audience to the demographics of the Middletown area to get a better idea of how to analyze the site’s efficiency and effectiveness of its purpose.
We decided on three audience segments that would be representative of a typical Press and Journal website user. These three segments are reflected in our three personas. The first segment would be a teenage or college aged individual. These individuals have the typical socioeconomic status of a middle-class family that can afford technology such as a computer with Internet access to use the Press and Journal site. These individuals have a good technology skill level, being able to use computers and browse the web fairly well. The purpose for someone in this segment could vary greatly, but we think that this segment’s most common uses will be for things such as finding photos from local events, such as sports events, reading articles about local schools, and general local news. The persona of Tyler Clark is an example of someone in this segment.

The second segment consists of a middle-aged individual, between 35-55 years old, again with the typical socioeconomic status of a middle-class individual in the Middletown area. Those in this group can afford their own personal computer with Internet access to use the Press and Journal site at their convenience. The technology skill level in this segment is lower than in the previous, but still at a competent level. Most users in this segment use the Internet primarily for basic web browsing and email. The purpose for someone in this segment again could vary, but we think that this segment’s most common uses will be for things such as reading local news stories, finding information about local events, or something such as finding local job postings. The persona of David Joels is an example of someone in this segment.
The third segment consists of an older aged individual, 55 or older, with the typical socioeconomic status of a middle-class or retired person living in the Middletown area. Those in this group, like the others, are able to afford a computer with Internet access. The technology skill level drops again, with users possibly struggling a bit with navigating a website and overall computer usage. Individuals here are possibly new to the Internet and/or computers. The purpose for someone in this segment is pretty basic; the most common uses are local news, local events, obituaries, and etc. The persona of Margaret Smith is an example of someone in this segment.

**Background**

Background knowledge we will acquire from our participants will be reasons why they would want to visit the site, type(s) of local news in which they are interested, and their familiarity with technology and navigating websites.

**Actual Audience**

In our actual testing, we ended up testing a group of individuals that weren't as diverse as we hoped. Because we chose a coffee shop for our location, we could only pick from the individuals on the premises that agreed to take part in our testing, giving us a convenience sample. This led to our subject group consisting of 3 females and 3 males. The 3 females were college-aged individuals. One male was college aged, one was in his mid to late forties, and one was around age 60.

See APPENDIX B: Audience Personas for an in-depth look into our segments.
Methodology

For our Usability Test we decided to test the website pressandjournal.com, a local news website for Middletown, Pennsylvania. While testing this site we were looking to discover how quickly and easily users are able to navigate the site to perform the task they came to the site to complete. While preparing to test the website we took into consideration the various demographics that use pressandjournal.com, ranging from teenagers to the elderly, and tested for how well each of these demographics could navigate the site. While testing, we were also looking to evaluate the efficiency of the navigation.

Our group developed our heuristic, recognition over recall, to see how effectively participants could recognize what parts of the site were needed to accomplish their goals. We used this as a basis for our test plan and developed our three test tasks around this heuristic. The tasks are as follows.

a. For your first task, please locate the article in front of you on the website. (Article was provided in front of participant).

b. Next, you will locate an article about a local high school's musical.

c. Finally, you will be locate the date and time of Bingo Mania.

Each of these tasks was created to test the heuristic of recognition over recall so that we could determine whether the user had to be familiar with the site to use the navigation or whether they could recognize what link to click on to accomplish their goal based on the information that we provided them.

At the start of the test, we asked our participants pre-test questions pertaining to their past experiences with the use of online news. Once we
accomplished this we began the test, which involved the participants completing three separate tasks, each one involving a different section of the Press and Journal website.

Afterwards, we provided a post-test questionnaire that made use of both qualitative and quantitative data by asking questions based on a Likert scale. The qualitative questions were open ended and asked for participant opinion of the site and if they had any closing remarks pertaining to the test. In addition we also gained data by keeping track of how much time it took each participant to complete each task, how many clicks it took each participant throughout the test and also kept track of their habits and comments throughout the duration of the test.
See APPENDIX A: Test Plan for more information on our methods.

Findings

Upon testing the Press and Journal website, pressandjournal.com, we discovered flaws. Many participants struggled with the task that required them to locate a specific local event. Because events do not appear within search results, participants took longer to complete that task, one participant even failing to complete it. Subject number three stated a desire to be able to view the calendar by months or years. They explained this would better help them locate specific events for which they are searching. Subject number four said they would like to see events show up in the general website search because they were frustrated at the number of steps needed to find an event.

We also discovered that the search bar on the site is difficult to find for the average user, yet is desirable as a method of navigation. Most of the users used the search
bar as the first method of attempting to complete the task and only pursued other options when that failed. Subject number one completed the first two tasks without the search bar only because they did not find it until the third task. Because the bar is such a key component in the navigability of the website, visibility is absolutely necessary.

Various statements made by the participants also indicated a general discontent with distractions on the homepage of the website. In their post-test questionnaire subject number two did not like the changing banner as they felt it was distracting and took away from the website’s purpose. The same participant also stated that the white (blank) space in the homepage was distracting and could be replaced with local news articles or events. Subject six also stated that the layout and design of the website was boring and neglected to catch their attention.

*Post-Test Questionnaire*

The following questions were given in a Likert scale format from 1-4 with one being very difficult or challenging and four being very easy or not challenging.

1. How easily of difficulty did you find everything on the posted list?
   - Participants rated this question with an average of 2.8
   - Comments made about this question:
     - “The last one [task] was harder.”
     - “It would be easier if there was more info about it.”

2. On the webpage, how challenging was it to complete your tasks?
• Participants rated this question with an average of 2.8

• Comments made about this question:
  - “My thoughts on where they would be were generally right.”
  - “If I was more familiar with the site I’d probably know where to look.”
  - “Could not find Bingo Mania [calendar event].”
  - “Finding calendar was a little difficult.”

3. How well do you believe the home page of the site was laid out?
• Participants rated this question with an average of 3

• Comments made about this question:
  - “I like it!”
  - “I don’t like the changing banner and dead space surrounding it.”
  - “Headline articles are not clear enough/too many advertisements (very distracting)—could be more pictures with headline articles.”
  - “Make stuff ‘pop’ more.”

4. If the news this company covered was available in your area, rate the likelihood of you using this website.
• Participants rated this question with an average of 3

• Comments made about this question:
  - “If this was my local news it would be what I would use.”
  - “I have similar available, but wait until paper arrives on Friday in the mail.”
  - “Boring.”
5. How many visits do you think it would take for you to feel comfortable using the website regularly?

- Participants rated this question with an average of 2.3 times

- Comments made about this question:
  - “I’m not super techy.”

Additional comments about the site

- “It looks good! The search bar was in an interesting place. Not where I would have expected or would first look for.”

- “Using of articles in search should be most recent to oldest.”

- “It was organized well.”

- “It was boring to look at, make more interesting.”
Task 1: Locate the article in front of you on the website.

![Time Taken to Complete Task 1](chart1.png)

Task 2: Locate an article about a high school musical.

![Time Taken to Complete Task 2](chart2.png)
Task 3: Find the date and time of Bingo Mania.
**Recommendations**

The Press and Journal needs a functioning, accessible website in order for their readers to fully engage in the services that they are offering. There seems to be three main problems with how the site is laid out and how it operates. The search bar is located in a tough spot, the navigation bar is an issue, as is finding important news events. Other problems include search results and calendar location. To help the Press and Journal, the usability team came up with recommendations on how to improve the site.

Our usability group focused on the heuristic “recognition over recall.” This principle focuses on the idea that relevant information that a user is searching for should be easily recognized. Users tend to look at the search bar to the right of the screen, instead of the left of the screen, whereas the Press and Journal has it located to the right of the screen. We recommend that the bar shift to the main navigation menu, featured more prominently on the side that users have come to expect.

Furthermore, when a user tries to search the website, the results are difficult to recognize, appearing as basic links without pictures or any solid indication of where they might lead. The set up of the search results slows down user progress, a trend that may lead to disinterest and abandonment, as seen with one of our participants. Therefore, search results should include a lengthier description and a picture from the article, if available.

The navigation bar, important news, and calendar location are related by virtue of grouping. The navigation bar contains three separate sections, making information hierarchy unclear and giving the user too many options for them to
choose from. It is hard to tell what would be under each category due to the amount of similar labels featured in the bar. We recommend that these categories are grouped concisely, minor headings nested in larger ones. 7-9 categories is a much more appropriate amount than the current count of 22.

Additionally, a category focused on headlines is necessary, highlighting important or breaking news. It is hard for the user to tell what is recent, and what has been on the site for a longer time.

The homepage could also stand to arrange its advertisements differently. The placement and numerousness of the site’s ads are distracting to the user. We understand that ad revenue is necessary, but consistent spots for ads, as well as less animated gifs, would help streamline the site.

During the usability test, the users struggled to find the calendar. Only located in an innocuous heading, this function could benefit from being integrated into other parts of the site or by being displayed more prominently. Users had trouble searching the calendar, events from search results appearing from earliest to most recent. Given that the average user will be looking for upcoming or recent events, inverting the search sorting would be ideal. Additionally, information from our test group indicated that calendar events would be best grouped under the “Community” heading.

The Press and Journal has amazing potential to help their users be able to utilize the website to the fullest. With these changes, the delivery of the news can be more efficient and accessible than ever.
APPENDIX A:

Test Plan
Introduction

The Press and Journal, a Middletown publication, has moved online in an effort to keep current with the shift away from traditional newspapers. However, we believe that the site could use improvement, and would like to evaluate it by running tests on the primary audience of the site.

Purpose

The purpose of our usability test is to examine the Press and Journal’s website. We want to test how easy it is for the audience of this company to use their website. The demographic for Press and Journal varies in age, therefore we want to test an audience with variations in age. We also want to test the effectiveness of the website’s purpose. Press and Journal provides news to the Middleton, PA area and their website allows users to find, read, and choose the information in which they are interested.

Test Goals

• Test the usability of the Press and Journal website
• Test the efficiency of the website’s navigation
• Test the ease of use of the website specific to the site’s demographics
• Test how well the site completes its purpose
**Target Audience**

The audience in which we are targeting varies slightly in terms of age, socioeconomic status, and purpose for using the site. Our target audience for the usability test is of a similar demographic to those in the Middletown area. We want to target a similar audience to the demographics of the Middletown area to get a better idea of how to analyze the site’s efficiency and effectiveness of its purpose. We have created three different personas for our test plan to better understand the demographics we are targeting. To create personas that were a good representation of our target audience, we talked with the director of the company about their audience. He told us that the age group various and is gapped by different age groups. There is a large percentage of teenagers that use and access the site and there is also a large percentage of people thirty and over that use the site. This gave us a better idea of the average income of the various age groups we are targeting.

**Background**

Background knowledge we will acquire from our participates will be reasons why they would want to visit the site, type(s) of local news in which they are interested, and their familiarity with technology and navigating websites. This is imperative to our usability test because it will allow us to be able to make probably analyses of how functional and effective the website is.

**List of Tools**

2 laptops with usability testing software
1 video camera (1 for watching the users screen/hands, another for watching their face to keep track of expressions)

Mouse

Things for us to take notes on (laptops, pens and pencils/paper)

Sheet explaining objectives to user

**Procedure and Test Tasks**

Participants are to be tested individually. Before the test takes place, the testing area is to be furnished with:

- A camera
- A computer with the website preloaded to the home page, including an external mouse
- Copies of the article to be located
- Copies of the post-test Likert scale
- Notebooks and writing utensils for the testing personnel

Upon first entering the room, the participant will be greeted by the primary administrator, henceforth referred to as the PA. The PA will direct the participant to a seat in front of the laptop. At this point, all testers and equipment should be in place, in the following configuration:

- Camera over the participant’s shoulder, operated by a cameraperson, with a clear view of the laptop’s screen and mouse
- Three administrators monitoring the testing process, equipped with notebooks, one observing facial expression and body language to the front, another
making a note of all verbal cues, and a third to the side, next to the camera, noting behavior when interacting with the site, including time between clicks and pages navigated to.

If all of these components are properly placed, the PA will brief the subject on the tasks he or she will be completing. If the participant indicates that he or she is willing to undertake all of the described tasks, the test begins. The tasks to be completed are as follows, in this order:

1) The participant is given an article and told to locate the article on the site.
2) The participant is given a topic and is instructed to search for an article relevant to that topic.
3) The participant is instructed to determine the date of a named event.
4) After these tasks are completed, the participant is handed a Likert scale, containing several questions concerning the ease of use, discoverability, and navigability of the site and the articles contained herein.

Once all of the previous tasks are completed, the PA thanks the participant for his or her participation in the test and then dismisses him or her.

**Usability Test Script**

Hello, and thank you for participating in this usability study. During this study, you will be walking through the website of the Middletown Press and Journal, a local news site, and attempting to locate certain pieces of information.

Before we proceed, do you read any online newspapers?
[If yes] Which ones?

[If no] Is there any particular source with which you prefer to view news? If yes, then which one?

Again, this study will require that you navigate your way around the website. When doing so, please describe the thought process behind your decision-making. Simply state why you are taking the actions that you are taking, as well as your thoughts on where you are and what you are doing on the site. For instance, you might be searching for an article on baseball, and would say something along the lines of, “I’m going to navigate to the sports tab to find an article about baseball.” After the test, you will be asked several questions concerning the usability of the website.

Please note that this test is meant to gauge the site’s functionality and not your abilities.

Before we begin, are there any questions?

[Computer, article, and tasks are placed in front of participant]

Thank you for your participation. You will now be asked several questions, all related to the functionality of this website. Please note that, for the scale questions, a 1 is the lowest score and a 6 is the highest score. Are you ready?

[Participant is asked questions and prompted to justify his or her response to each. An administrator is responsible for recording both scores and comments.]
Again, we appreciate your efforts in this test. All recorded data, including time to complete each task, number of clicks, and pages navigated to will be used to determine issues with the site for us to subsequently improve. Do you have any more questions for us?

[If no] The test has now concluded. Thank you for your participation, and have a pleasant day.

Tasks
At any point, you are free to ask the moderator questions about what you are answering. Again, please try to explain your reasoning behind every action you take. The more you say, the better.

a. For your first task, please locate the article in front of you on the website.
b. Next, you will locate an article about a local high school’s musical.
c. Finally, you will be locate the date and time of Bingo Mania.
d. After you have completed your tasks, I will hand you your post-test questionnaire for completion.

Data Analysis
We will be performing a moderated usability test with a think aloud process. We are using the metrics below because we want to look see the correlation between the qualitative and quantitative data. There may be a correlation between the number of times a person clicks and their frustration level. However, without
testing it is impossible to say if it is causation or correlation. We hope to find that the users are not frustrated with the website layout. We also hope that the tasks are manageable while utilizing the existing site and do not cause too much time and effort to be wasted.

**Qualitative**

- The difficulty level of performing any task based off facial expressions, questions, and frustration
- Level of confidence that users would be able to perform the tasks again

**Quantitative**

- Counting the number of clicks it takes the person to perform a task
- Keeping track of the time between each click
- Time it takes to get to complete the desired task
Post Test Questionnaire

Please answer all questions honestly. In the extra space, please state your reasoning for each answer.

1. How easily or difficultly did you find everything on the posted list
   - 1 – very difficult
   - 2 – somewhat difficult
   - 3 – somewhat easy
   - 4 – very easily

2. On the webpage, how challenging was it to find what you were instructed to do?
   - 1 – extremely challenging
   - 2 – somewhat challenging
   - 3 – manageable
   - 4 – not challenging

3. How well do you believe the home page of the site way laid out?
   - 1 – very poorly laid out
   - 2 – poorly laid out
   - 3 – somewhat well laid out
   - 4 – very well laid out
4. If the new this company covered was available in your area, rate the likelihood of you using this website
   o 1 – extremely likely
   o 2 – somewhat likely
   o 3 – likely
   o 4 – not likely

5. How many visits do you think it would take for you to feel comfortable using this website regularly?
   o 1 time using
   o 2 times using
   o 3 times using
   o 4+ times using

Do you have any last thoughts on any aspect of the website?
APPENDIX B:

Audience Personas
Margaret Smith

“My children just got me a laptop to help with my scrapbooking. I’m very happy that I now own a computer, but darn is it hard to use for an old person like me! Websites have so many thinks to click and read. I just want to be able to communicate with family and find things for my scrapbooking project. “

Sex- Female
Age- 71
Education- High School
Ethnicity- White
Family Status- Married, $65,000/year
Job Title/Main Focus of Activity- Retired

Technical Profile- New to technology such as computers and smartphones.
Recently acquired a laptop.

Internet Use- Email, occasional Facebook for family pictures, basic internet searching

Hobbies-
- Visiting Family
- Scrapbooking
- Staying active at the local YMCA
- Knitting
- Cooking

Margaret is a retired wife who used to work at a shoe factory as an accountant. However, she retired right before computers became a big part of the job, and never really learned how to use them. Margaret recently received a laptop from her children as a gift, and she wishes to use it to aid her in scrapbooking. She wants to use her local newspaper’s website to find obituaries of people she knew to add to her scrapbook. However, Margaret has limited experience on the internet and has trouble navigating the web.
Tyler Clark

“I feel like I’m average when it comes to technology. I have what most people own—
a laptop and a smartphone. I use them daily and know my way around them. I just wish that some website were easier to navigate though. Finding my high school football pictures can be hard sometimes.”

Sex- Male
Age- 17
Education- Senior in high school
Ethnicity- African-American
Family Status- $60,000/year
Job Title/Main Focus of Activity- Student, football player

Technical Profile- Average level of comfort with technology, owns a laptop and smartphone. Performs basic level tasks such as web browsing, word processing, basic games, etc.

Internet Use- Email, Twitter, Facebook, Instagram, general browsing. Also uses academically for school

Hobbies-
- Hanging out with friends
- Playing video games
- Working out
- Playing football

Tyler is in his senior season of playing football for his high school. He is a star of the team; he plays running back and is getting recruited to play college football. He is an active social media user, and likes to make his profile pictures action shots of him playing. He usually finds these photos either posted on social media by a photographer, or on his local newspaper’s website. Tyler sometimes has trouble navigating through the pictures, however. The photo browsers are confusing to him sometimes, or even hard to find on the website.
**Name:** David Joels  
**Demographic Information:** 54, Caucasian, Married, High School Graduate  
**Job Title:** Sales Associate in a successful sports sales representative group.  
**Family Income:** $55,000/year  
**Internet Use:** Only uses internet for news stories and email, not very tech savvy.  
  
Spends around 30 minutes on the internet every day.  

**Goals:** Wants to be successful in his business and make enough money to send his two children to college and to enjoy the rest of his life in comfortable retirement.  

**Hobbies:**  
- Seeing his children play in High School sports events.  
- Going hunting and fishing every few weekends in his free time.  
- Spending time with his family and friends.  

**Quote:** “I make my money the old fashioned way, I earn it.”  

**Personal Information:**  
  
David Joels has been raised to be a hardworking and traditional man since the day he was born. He has lived in the same town that his raised him for his entire life and is now raising his own children in the very same place. Outside of going on family vacations or visiting distant relatives David does not typically leave his hometown of Goodville, Pennsylvania.
David’s wife is a Computer Science teacher at the local High School where his two children, Emily and Josh are students. David works 8 hours every day and spends most of his free time with his family.

Outside of using the internet for email and checking news, David very rarely tries to use his computer. David did however book a last minute flight over the internet once, but could not accomplish the task without the help of his wife.