

HTML versus Flash

**What works best
- and when**



DiSEL Digital
Storytelling
Effects Lab

Report one

Fall 2005

and in tune with their surroundings.

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For more information about DiSEL and its research projects, go to www.disel-project.org. Supplemental information about this research study is available there, including video selections of the sessions, data, and other materials.

DiSEL Study 1

Executive summary

As design options for online storytelling become more and more elaborate, it is important to consider the effectiveness of presentation forms. This DiSEL study compared two presentations by the BBC about recreational drugs – one Flash interactive and one HTML encyclopedic-type reference – and evaluated the effectiveness of each. Overall, the Flash piece could be considered more effective, although the HTML approach was more effective in certain circumstances. This comparative study showed that for the two sites tested:

Flash works best when...

- You want the user to spend more time with the presentation.
- You want the user to look at more of the presentation.
- You want users to describe the experience as “enjoyable.”
- You want users to recall more of the information.
- You want the user to recall your brand.
- You want your user to feel entertained.

HTML works best when...

- You want the user to consider all the presentation materials.
- You want the user to perceive the site navigation as easy.

Either form is equally effective if...

- You want to increase the likelihood a user would return to the site.
- You are interested in creating a change in the users’ attitude toward the story’s subject matter.

Additionally, a person's motivation when approaching the site was considered. Regardless of presentation style it was determined that:

If users are seeking information...

- They will spend an average of two minutes longer on the site than if they are looking to be entertained.
- They will have greater recall and comprehension of the information than those seeking entertainment.
- They may be more inclined to change their attitudes toward the subject matter than those wanting to be entertained.

Motivation did not matter in terms of...

- How enjoyable a user found the site.

Overview of the DiSEL project

The creators of news and information have a wider array of options for crafting and delivering their messages than ever before. This is the good news. The bad news is that there is little known about the effects of different story formats on the audience.

While a great deal of study and attention has been given to the design and usability of information and news websites, there has been little given to the design and usability of individual story packages.

This is where the Digital Storytelling Effects Lab comes in.

The DiSEL project has grown out of a desire for actionable information about the effects of different digital story forms. We hope to give online news producers guidance on the effectiveness of new story forms.

The DiSEL research team consists of Nora Paul, director of the Institute for New Media Studies at the University of Minnesota and Laura Ruel, assistant professor of multimedia design in the University of North Carolina's School of Journalism and Mass Communication. We have been examining, explaining, and teaching about the changes that are happening in the realm of digital content creation for the past seven years. We teamed up to create a

new approach to getting beyond speculation about story form effects and provide real insights into not only what the audience thinks about different story forms, but how they actually experience the content.

We have developed a three-pronged method for evaluation that incorporates:

- Eyetracking – using sophisticated technology to track the movement of the viewers' eyes on the computer screen.
- Usability – using observation and assigned tasks to evaluate how easy a story package is to use and navigate.
- Effects – using pre- and post-exposure surveys to see if a presentation influenced attitudes, information recall, enjoyment, or other desired outcomes.

Each of the three-phases of this research approach provides interesting insights into user experience. But together they provide a fuller picture and more information for storytellers reflecting on story design choices.

DiSEL is committed to conducting research that conforms to academic rigor. We want the results, unlike the findings from a small scale usability test, to be generalizable. However, DiSEL's primary goal

is to provide timely answers and insights into the pertinent, practical questions and challenges faced by multimedia designers and storytellers today. Academic papers based on DiSEL research will be generated, but our publication priority is practical, actionable advice published in small reports such as this.

We hope to build a body of information about the variety of digital content options available to information providers. The goal is to help figure out the best ways to

serve the audience with engaging and impactful information. We would like to develop a network of organizations interested in this type of research to guide both the content forms to be tested and to see test the impact of the research on content design decisions.

We welcome your comments and feedback, as well as your suggestions for future studies.

Nora Paul, npaul@umn.edu
Laura Ruel, lruel@unc.edu



DiSEL Study 1 was conducted in the usability lab at the University of Minnesota. During the testing the researcher (front) is able to watch the user's eye movement in real time. The session is recorded so it can be replayed and re-evaluated when testing is complete.

Goals and research set-up

One of the challenges for online storytellers is determining when the use of elaborate storytelling techniques makes sense and when a simpler, more straightforward form might work better. This is the primary goal of DiSEL Study 1 – to compare information-rich stories presented in Flash and in HTML. We wanted to see how the form of the story impacted user behavior and attitudes, not only about the form but about the information presented.

Another challenge for online storytellers is understanding the motivation behind why someone goes to an online story. Are they looking for specific or general information, are they just “killing time” and looking around? Does the motivation one has for going to a story make a difference in their attitude toward the presentation or their behavior on the site?

The results of the study will have significance depending on your own goals for the story you are about to create. There are a variety of motivations for storytellers to create a story.

The areas of user behavior and attitude we examined through participant surveying and eyetracking were:

Stickiness: How long did the person stay with the story? How thoroughly did they go through the

material presented?

Enjoyment: How satisfying was the experience? Would they seek more stories like this? Would they go to the creator of this story for more information?

Information acquisition and retention: How well did people remember the information presented? Did people recall the brand of the organization that created the story?

Attitude change: Did a person’s attitude about the topic change because of their exposure to the information?

Research set-up

Finding the testing material: To do this test we needed to have two versions of the same content set – one designed in a static, passive, text/still image form (HTML) and the other in a dynamic, active Flash form. We found what we were looking for on the BBC website. They had created packages of information about the health effects of different “recreational” drugs – one a cleanly designed encyclopedic looking page, the other a Flash interactive in which the user “gives” drugs to the young man dancing on the screen and the impacts to various parts of his body are displayed when they are clicked on. These two forms represented the two extremes of



Flash site: http://www.bbc.co.uk/radio1/onlife/fun/health/excess/drop_test.html



HTML site: Based on:

<http://www.bbc.co.uk/radio1/onlife/health/index.shtml?drugs#topics>

content design – both of them well designed for their style but both providing entirely different sorts of user experiences and requiring different levels of interaction with the content.

Finding the participants: We wanted to research the target audience for this content – young adults. Advertisements seeking

participants ran in the University of Minnesota Daily and were sent to various community mailing lists on campus. The 63 participants ranged in age from 19 to 31, most were University of Minnesota students (but not all), there was an equal mix of male and female. The participants were scheduled for half-hour appointments during a four-day period in August 2005 and



The two white dots in the center of the computer screen represent the position of the user's eyes. The small, dark circle at the bottom of the monitor contains the eyetracking camera.

some additional participants came in early September 2005. Several of the participants' results were discarded because of eyetracking issues.

The research process:

Participants were asked to fill out a pre-exposure survey and then sit in front of the eyetracking monitor where their eyes were "calibrated." They were then given one of the two forms (Flash or HTML) and given one of two motivations for going to the site ("A friend sent you this site and said you might be interested in looking at it." Or "Your instructor gave you this site as a good source for information for a paper you will be writing on health effects of drugs.") Each participant was told to just look at the site for however long they wanted. The participants sent with the "information" motivation were told they needed to at least look at a couple of drugs. After they indicated they were through looking at the site, they were asked a specific information seeking task. After the site use, they completed the survey.

Each participant was given \$20 as an incentive for coming to the research session.

The analysis: The videos of the eyetracking sessions were examined to determine:

- Length of time spent on the site.
- Number of drugs they looked at.
- The order in which they moved through the drugs.
- The depth to which they read the content.
- Whether (in the case of the Flash) they read the directions carefully.
- Whether they looked at the news organization's brand on the site.

These results were coded into a spreadsheet along with the responses from the surveys. These results were then analyzed by University of Minnesota graduate students Sela Sar and Itai Himelboim. It is the analysis of these observations and survey responses that make up the findings of DiSEL Study 1.

Procedures

The study was conducted on August 18, 19 and 20 and September 8, 2005 in the Usability Lab at the University of Minnesota. We tested 63 subjects, using four different testing conditions, resulting in a total count of 15 subjects tested under each condition. (Three of the 63 participants had unusable data.)

The testing matrix was as follows:

<p>Condition 1: Flash presentation with motivation 15 subjects</p>	<p>Condition 2: Flash presentation without motivation 15 subjects</p>
<p>Condition 3: HTML presentation with motivation 15 subjects</p>	<p>Condition 4: HTML presentation without motivation 15 subjects</p>

“Motivation” refers to the scenario presented to the participant before viewing the presentation. Those in the “motivation” groups were told they needed to view the presentation at the suggestion of their professor who wanted them to write a paper about the effects of different drugs. Those in the “non-motivation” group were told they were viewing the site because a friend had e-mailed them the URL and suggested they check it out.

Subjects were recruited by placing an advertisement in the student paper and displaying fliers on the University of Minnesota campus. The ads and fliers gave potential participants a number to call or an address to e-mail to volunteer. Each subject received a \$20 cash incentive, which they were given

once they completed the study.

The test took each subject about a half hour to complete. It was broken into four parts:

- Pre-test survey (See Appendix A), where basic online behavior questions were asked and the users’ attitudes toward the presentations’ subject matter were gauged.
- Eyetracking calibration, where the users’ eyes were synchronized with the eyetracking camera.
- Free exploration time, where (after receiving the motivation scenario) the users freely explored the site with the eyetracking device following their movement.
- Usability question, where users were asked to complete a task (to find the effects that mushrooms have on a person’s stomach) while their eyes were tracked and behavior observed.
- Post test survey, (see Appendix B) where recall, retention and attitudinal changes were assessed.



The test took each subject about a half hour to complete.

Findings

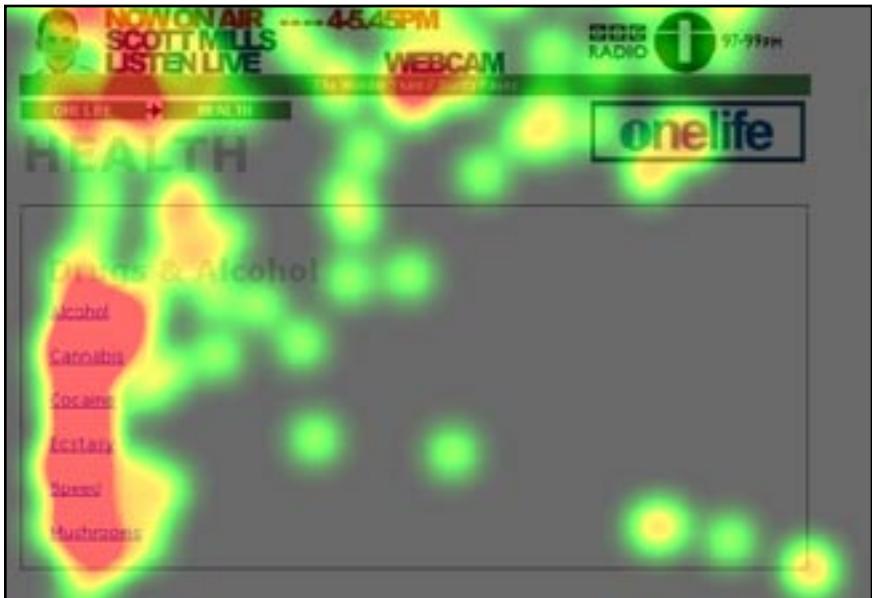
The findings for DiSEL Study 1 fall into two categories: form and motivation. The following are the findings of the study based on pre- and post-exposure surveys and examination of the eyetrack session videos. For each of the findings we provide some speculation (and it is, at this point, just speculation) about why these results might have happened.

It is important to remember that the goal here is not to provide a definitive answer to what form should be used but rather to provide some information about observed and contributed responses to the content forms which can help content creators

more consciously make design decisions. Depending on what it is you want to achieve with the story package you are creating – stickiness, information retention, enjoyment, etc. – one or another of the forms might best be used.

FORM: HTML vs. Flash

Stickiness: Flash users spent an average of two minutes longer (7:42) on the story than HTML users (5:45). *What we think this means:* The number of combinations of drugs possible on the page and the need to click on various parts of the body to find out the effects led to more exploration



More HTML users looked at all of menu options than Flash users .

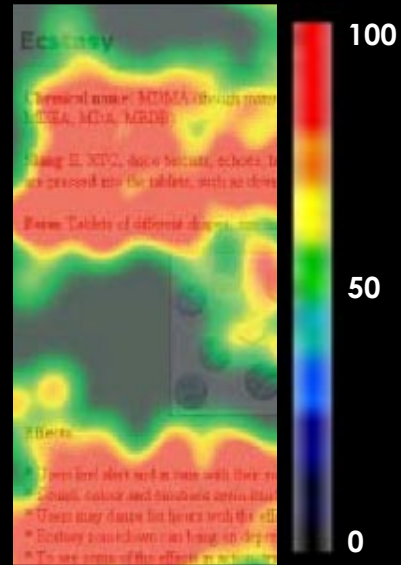
of the story. The interactivity and the “fun” of the page (watching the dancer, hearing the different music selections) led to a greater sense of flow, being in the content.

More HTML users looked at all of the drugs (63%) than Flash users (54%). *What we think this means:* It was easier to just click through from drug to drug on the HTML page than to keep track of which drug you had or had not seen on the Flash page because of the more non-linear design.

Flash users looked at more drugs, an average of 5 out of the six while HTML users looked at an average of 4 out of the six drugs. *What we think this means:* Again, the sense of exploration... “Now what happens if I give him cocaine...?” is different in the engaging Flash story. The information display for one drug versus another in the HTML form was the same, as the user soon realized.

Enjoyment: When asked “How enjoyable was the experience of using this site?”, the Flash users rated, on average, a more enjoyable experience. Only one of the HTML users rated “level of enjoyment” at the highest ranking (1=not enjoyable, 5=very enjoyable) while seven of the Flash users rated at the highest ranking. (But three Flash users rated the experience as a 1 while only 1 of the HTML users rated their experience that way.)

Understanding a ‘hotspot’



Hotspots provide an overall view of activity on a Web page. To create the hotspot, data from all user activity on a page are combined and color coded. The color key to the right references the %age of participants whose eyes fixated on certain parts of the page. The red/orange/yellow areas are where the larger %ages of the group looked most. The gray areas are where they looked least.

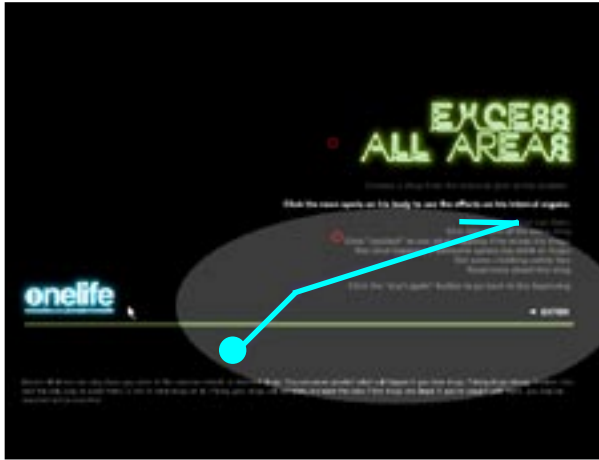
What we think this means: People might have more of an extreme emotional reaction to this kind of atypical presentation.

When asked about the likelihood

Not following directions

Significantly more HTML users deemed the story easy to navigate than Flash users. The Flash navigation and instructions seemed less user-friendly. The blue dots and lines in the images below show the movement of one Flash

user's eyes while viewing the instruction page. Although the highlighted (white) text was intended to guide the user through the instructions, this user's eyes moved to other areas of the presentation.



they would go back to this source for more news and information or presentations such as this about half of both the HTML and Flash users said they would “Return to this news organization’s websites only if I knew they had information on a subject I was interested in and could find nowhere else.” *What we think this means:* This response is indicative of users’ lack of brand loyalty. They will go where they find the information they need (usually through search sites) rather than go to a specific site to see if it has the information they need.

More HTML users (5) than Flash users (2) said they would “Like to frequent this news organization’s websites in the future for news and

information” but more Flash users (7) than HTML users (5) said they would “Like to frequent this news organization’s websites to see if they produce more stories in this same presentation style.” *What we think this means:* The clean and straightforward presentation of information in the HTML site might seem more credible for “news and information” than the Flash version therefore, more HTML users figured this would be a good organization to go to for information. But the higher response by Flash users about wanting to see if there were more stories in this style indicates the greater enjoyment of the presentation itself, regardless of the information.

Navigation ease is certainly an aspect of enjoyment of a story. Not surprisingly, significantly more HTML users deemed the story easy to navigate than did Flash users. (In a rating scale of 1=easy 5=difficult, 24 HTML users rated 1 and 15 Flash users rated 1. Two HTML users rated navigation as 3 or above and 10 Flash users rated at 3 or above – 1 rated it 5.) Those who most highly rated the story as “difficult to navigate” also reported less enjoyment with using the site. *What we think this means:* HTML is the online equivalent of reading a book page. The format and layout are familiar and this story, in particular, looks like an encyclopedia page. The more challenging Flash design caused more navigation problems.

Presentation of directions: The Flash version had fairly elaborate instructions on the splash page, a lot of text which lit up by paragraph. Examination of the eyetrack sessions of the Flash users showed how well people read these instructions. You could see if the eyes followed the lit portions of the directions, if the eyes flitted around the page, or if they did not read the directions at all.

- 19 of the 30 Flash users carefully read the directions.
- 6 skipped around on the page.
- 6 disregarded the page almost entirely choosing to go right into the site.

The consequences of not reading the directions were clear. To answer the question we asked each participant, “Find the effects of mushrooms on the stomach”, the user had to know that clicking on the red circle on the dancing guy would reveal information about the effects on that part of the body. Four of the six people who did not read the directions at all were not able to answer the question.

Information acquisition

and retention: Which form was likelier to enhance the retention of information? We looked at two approaches to test this: unaided recall (open ended questions about the effects of several of the drugs), and aided recall (multiple choice questions.)

For the unaided recall questions, the Flash users had a higher number of correct responses. Only three Flash users said they didn’t know, six HTML users didn’t have an answer.

For the aided recall questions, there was no significant difference between the forms in terms of correct answers.

Brand recall: 41% of the Flash users could correctly name the organization (BBC) that put the site together and 35% of the HTML users could recall it. *What we think this means:* One thing this means is not enough people care to be sure they know who they are getting their information from! The higher

Results overview

Item	HTML	Flash
Time spent	5:45 min.	7:42 min.
Viewed all drugs	63%	54%
Average number of drugs viewed	4 (out of 6)	5 (out of 6)
Enjoyment - % who rated site at 4-5 (1 = not enjoyable, 5 = very enjoyable)	33%	50%
Would return to this site for more	50%	50%
Navigation ease (% who described it as “easy”)	72%	45%
Unaided recall of information (number who could NOT answer correctly)	20%	10%
Brand recall (% who correctly identified the news organization)	36%	41%

recall of brand information by Flash users might speak to the more random display of information on a Flash site. Since you don’t know what is going to be happening on the screen or where, your eyes are constantly scanning the site. On the HTML page, the brand’s fixed placement in the upper left corner (just what usability expert Jakob Nielsen recommends) makes it easy for users to ignore.

Attitude change: One of the



Forty-one % of the Flash users could correctly name the organization (BBC) that put the site together. Here a Flash user focuses directly on the BBC "onlife" logo.

intentions for the writing of a story might be persuasion. Another might be to give the reader enough information to make informed decisions. This particular topic, the health effects of “recreational” drugs, might have both outcomes. Trying to discover whether exposure to the story resulted in changed decisions about drug use is problematic, honest answers might be embarrassing or incriminating. Therefore, we looked only at how, or if, the form of the story affected a person’s opinion about how harmful (or not) a drug was. Participants were asked to rate, both before and after they saw the story, each of the six drugs in terms of health effects (1=harmless 7=extremely harmful.) Each of the presentation styles resulted in significant changes in attitude for some of the drugs.

For HTML Cannabis and Speed usage was seen as more harmful after exposure, for Flash Alcohol and Cannabis were seen as more harmful. *What we think this means:* Further examination of how story form impacts attitudes is needed. While it is clear the form the information is presented in can influence opinion, it is not clear from this study exactly why or to what degree.

MOTIVATION Information vs. Entertainment

Stickiness: Users who went to the site for information spent an average of two minutes longer (7:42) on the story than entertainment seekers (5:44). The participants sent to the Flash site with the “entertainment” motivation

spent more than two minutes longer than those sent to the HTML site (6:54 vs 4:35). *What we think this means:* When users go to a site with a specific goal they take more time with the information. In this case, the goal was to find information for a report on drug health effects. For those who were there for “entertainment” the Flash experience was significantly more engaging than the HTML.

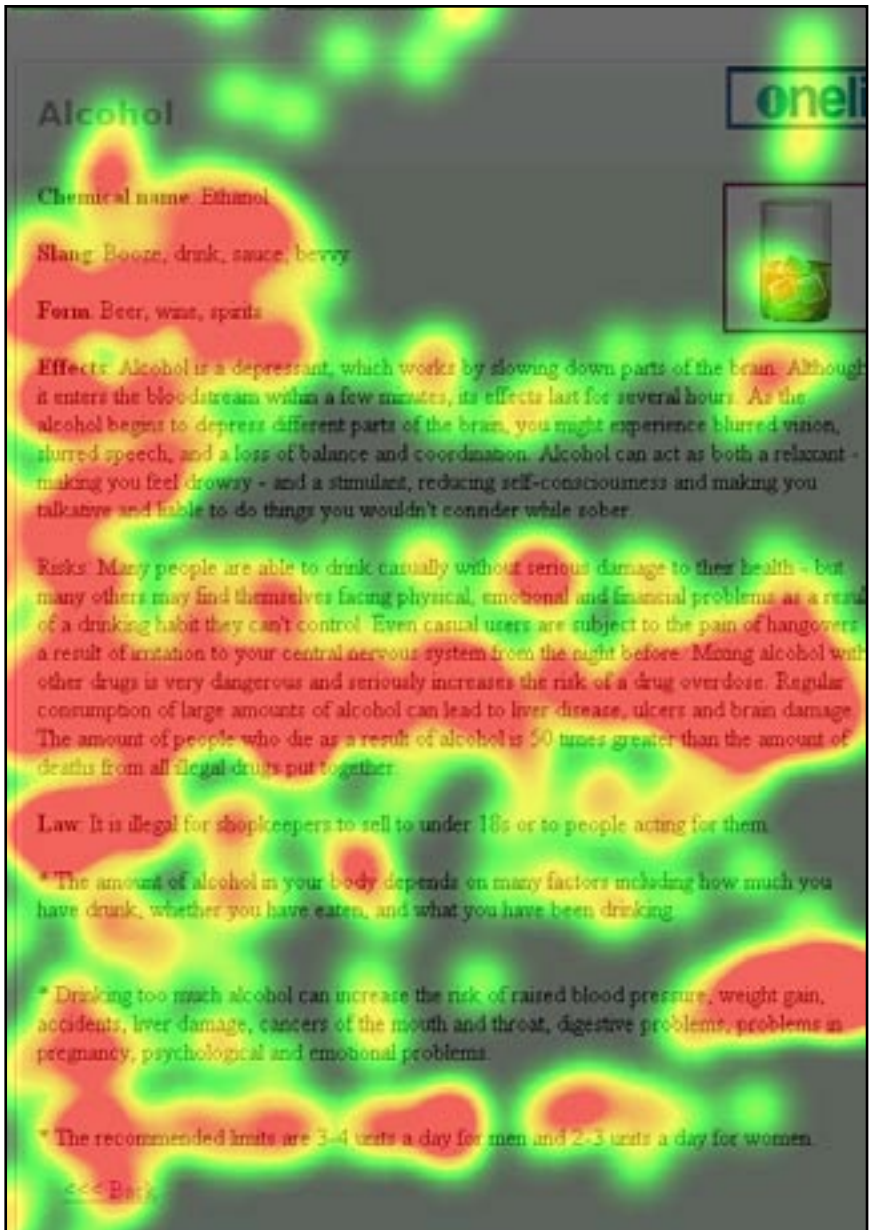
More “entertainment” participants looked at all of the drugs (64%) than the “information” participants (53.5%) but the average number of drugs each looked at was about the same. *What we think this means:* The instructions to the “information” participants were to go to the site for information about health effects of drugs and that they would need to write about at least one drug. Some participants did the minimum. That so many of the “information motivated” participants looked at all of the drugs, regardless of the instructions, indicates their interest in either the topic and / or the presentation style.

Enjoyment: When asked “How enjoyable was the experience of using this site?” there was little difference between the information and the entertainment motivated users overall. For those participants who went to the HTML site – the information seekers enjoyed the story much more than the entertainment seekers.

Eight information seekers rated “level of enjoyment” at 4-5 (5=very enjoyable) while only 3 of the entertainment seekers rated it at that level. For Flash participants, the entertainment seekers enjoyed the site slightly more than the information seekers (8 vs 6) *What we think this means:* If you are looking for a good time, HTML isn’t going to be the place to go, but for information, it is just fine. The slightly lower rating of Flash for information purposes could reflect that it was a denser presentation of information making it harder to use for information seeking.

Information acquisition and retention: It is no surprise that information seekers had higher recall of information in both the aided and unaided recall questions, regardless of the form of the story. When someone has a specific goal, they are more directed in their use of the site than the “browser.” The eyetrack recordings show the differences in how and where the eyes concentrate on a page with the information seekers looking longer and more carefully at the content than the shallower and more scattered viewing by entertainment seekers.

Attitude change: The information seekers showed a slightly stronger reaction in terms of their change in attitude toward drugs. For Alcohol, Cannabis, and Ecstasy there was significant change in the attitude of the information seekers.



Users who went to either the Flash site or the HTML site for information spent an average of two minutes longer (7:42) on the story than entertainment seekers (5:44). The hotspot shows the aggregate view of all information seekers on the HTML page about alcohol.

Appendix A: Pre-test survey

The pre-test survey gathered information about basic online behavior the users' attitudes toward the presentations' subject matter.

DISEL Study

Questions marked with an asterisk (*) are mandatory.

Thank you for your participation in this study. Any personal information you share with us is confidential and will only be shared among the researchers involved in this project (Nora Paul, Laura Rose, Itai Himelboim, and Julie Jones). All distinguishable information will be altered for publication of these findings. You can, at any time, opt out of the study with no penalties to you.

1 *Participant ID number

2 *When it comes to looking for information on the Web, I am:

Not confident in my skills	Very confident in my skills
1	2 3 4 5

3 *Viewing Flash or other kinds of animations or multimedia online is:

Difficult	Easy
1	2 3 4 5

4 *How many years have you been using the Internet?

- 0 - 1
- 2
- 3
- 4
- 5
- 6 or more

5 *In the last week (7 days), approximately how many hours did you use the Internet?

- 0 - 5
- 5 - 10
- 11 - 15
- 16 - 20
- 21 or more

Appendix A: Pre-test survey, continued

6 How often in the last week (7 days) did you visit news web sites for information?

- None
- 1
- 2
- 3
- 4
- 5
- 6 or more

7 Please list the news sites that you often use for information:

8 In the last week (7 days), how often did you visit news web sites for fun or entertainment?

- None
- 1
- 2
- 3
- 4
- 5
- 6 or more

9 Please list the news sites that you often use for fun or entertainment:

10 In the last week (7 days), how often did you visit news web sites for sports information?

- None
- 1
- 2
- 3
- 4
- 5
- 6 or more

Appendix A: Pre-test survey, continued

11 Please list the news sites that you often use for sports information:

12 "In the last week (7 days), how often did you use search engines like Google, Yahoo, or DogFile for information you could get on a news site?"

None
 1
 2
 3
 4
 5
 6 or more

13 Please list the search engines that you often use for information:

14 "Which of the following best describe your activities on the Web?"

I get my e-mail and do a few searches, but no more.
 I get my e-mail and look for information on things I need (books, travel and financial information), but no more.
 I like to read the news online, but I only do it when there is something in the news I am interested in.
 I love to read the news online, but I don't have time to do as much as I would like.
 I love to read the news online and do it as often as possible.

15 "When it comes to news sites, please rate the following presentation styles by your level of preference."

	1 Low preference	2	3	4	5 High preference
Text only.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text and some accompanying pictures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text, pictures, and animations or graphics if they help me understand the story better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Just give me pictures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to watch news videos.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix A: Pre-test survey, continued

I like to have the option of all of them – story, pictures, graphics or animations, and videos – and I choose what I want.

1 2 3 4 5

I like photographic slide shows.

1 2 3 4 5

Links to more information.

1 2 3 4 5

Links to blogs.

1 2 3 4 5

16 "When you navigate through news websites, how often do you feel overwhelmed with the amount of information presented?"

Rarely Often

1 2 3 4 5

17 "My level of knowledge about the effects of recreational drug use on the body is:

No knowledge A lot of knowledge

1 2 3 4 5

18 "My level of confidence regarding my knowledge about the effects of recreational drug use on the body is:

No confidence in what I know A lot of confidence in what I know

1 2 3 4 5

19 "Aside from the logistics of it, thinking about the health effects, what is your feeling about each of the following:

	1	2	3	4	5	6	7	No opinion	
	Harmless							Extremely harmful	
Use of Alcohol	1	2	3	4	5	6	7		
Use of Cocaine	1	2	3	4	5	6	7		
Use of Cannabis	1	2	3	4	5	6	7		
Use of Ecstasy	1	2	3	4	5	6	7		
Use of Mushrooms	1	2	3	4	5	6	7		
Use of Speed	1	2	3	4	5	6	7		

THIS IS THE END OF THIS PORTION OF THE SURVEY.
STOP HERE AND LET THE STUDY ADMINISTRATOR KNOW YOU ARE DONE.

Appendix B: Post-test survey

The post-test survey gathered information about recall, retention, attitudinal changes and individual demographics

DiSEL Study

Questions marked with an asterisk (*) are mandatory.

20 "Before today, how often have you used information presented as it was on the website you examined?"

Never Very often

1 2 3 4 5

21 "How enjoyable was the experience of using this site?"

Not enjoyable Very enjoyable

1 2 3 4 5

22 "After visiting this site, I would..."

- Like to frequent this news organization's website in the future for news and information.
- Like to frequent this news organization's website to see if they produce more stories in this same presentation of info.
- Like to frequent this news organization's website for both the news information and the presentations.
- Never return to this news organization's website.
- Return to this news organization's website only if I know they had information on a subject I was interested in and could find another site.

23 "Could you tell us what - if anything - you enjoyed from this presentation?"

24 "Could you tell us what - if anything - you found frustrating from this presentation?"

25 "How often through this site was..."

True False

1 2 3 4 5

26 "After spending some time with this presentation, would you..."

- Make an effort to find more stories presented like this from other news organizations.
- Avoid stories presented like this.
- I would neither seek nor avoid stories presented like this one.

27 "How often you used the website, aside from the legitimacy of it, thinking about the health effects, what is your feeling about each of the following?"

1 2 3 4 5 6 7

Not at all Extremely harmful No opinion

Use of Cocaine

1 2 3 4 5 6 7

Use of Cocaine

1 2 3 4 5 6 7

Use of Cannabis

1 2 3 4 5 6 7

Use of Ecstasy

1 2 3 4 5 6 7

Use of Marijuana

1 2 3 4 5 6 7

Use of Speed

1 2 3 4 5 6 7

It is now going to ask you a few questions about what you learned from the formation presented on the site. Please answer the questions or write "I don't know."

28 "Please list the effects you remember from the use of cocaine on the body?"

29 "Please list the effects you remember from the use of alcohol on the body?"

30 "Please list the effects you remember from the use of ecstasy on the body?"

Ask about the drugs that you looked at on the site. Answer the question related the drug information you looked at:

31 "Alcohol is (check all that apply)"

- A drug
- Poisoning
- A stimulant
- I don't know
- I don't look at this drug

32 "The high from a hit of cocaine lasts..."

- Five minutes
- About a half hour
- An hour or longer
- I don't know
- I don't look at this drug

33 "Excessive use of ecstasy can cause..."

- Heart problems

Appendix B: Post-test survey, continued

Stomach issues

Liver problems

I don't know

I didn't look at the drug

34. *The effects of a motorcycle high test

About an hour

About 4 hours

About 10 hours

I don't know

I didn't look at the drug

35. *Carnitine is: (check all that apply)

A carcinogen

Physically addictive

Psychologically addictive

I don't know

I didn't look at the drug

36. *Excessive use of speed can cause: (check all that apply)

Weight gain

Heart problems

Fatigue

I don't know

I didn't look at the drug

37. *What was the name of the team organization that created this website?

Let's please tell us a little bit about yourself!

38. *Your Age:

39. *Your Gender:

Female

Male

40. *Education level:

About

DiSEL

Digital
Storytelling
Effects Lab

The Digital Storytelling Effects Lab is a research collaborative between the University of Minnesota's Institute for New Media Studies and the University of North Carolina School of Journalism and Mass Communication.

The team leaders are Nora Paul (npaul@umn.edu), director of the University of Minnesota's Institute for New Media Studies and Laura Ruel (lruel@unc.edu), co-director of the Poynter Institute's Eyetrack III project, director of the Society for News Design's multimedia awards competition and assistant professor of multimedia design at University of North Carolina's School of Journalism and Mass Communication.

We urge those involved in multimedia storytelling to contact the team leaders with ideas for future research projects. More information at www.disel-project.org.



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