



Beyond the Book®



E-reader Usability: Nielsen Norman Group Analysts Grade iPad, Kindle Featuring Hoa Loranger & Marieke McCloskey

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KENNEALLY: Usability. It's a fundamental issue for content design in the digital environment. Think of it as the genetic code for a digital asset, whether that's a Website, an e-book, or a smart phone. If there are bad sequences in the DNA, things start to go very wrong.

Welcome to CCC's Beyond the Book. This is Christopher Kenneally, and I'm looking forward to a conversation with two usability experts, who have taken up the obvious question of how users – in the past, we called them readers – experience a book in print, on a PC, and an iPad or Kindle.

On the line with me today is Hoa Loranger, a director at Nielsen Norman Group, who heads the firm's San Diego office. Hoa, welcome to Beyond the Book.

LORANGER: Hi, Chris. Thanks for having me on the show today.

KENNEALLY: Well, it's great to have you here. And we're also joined from Los Angeles by your colleague, Marieke McCloskey, who is a user experience specialist there. And Marieke, welcome.

MCCLOSKEY: Hi, Chris. It's good to be here.



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KENNEALLY: Well, you know, I'm looking forward to the discussion because I am very interested, myself, in what's happening as we move from the printed word, from the p-book, as some people call it, to the e-book. And you've done some interesting surveys and studies on all of that.

But we should start with some basic definitions to help the audience understand usability. And I should say that at the Nielsen Norman Group, Jakob Nielsen is, of course, one of the co-founders, and usability and Jakob's name are nearly synonymous. The *Times* has called him the guru of internet usability, and I understand he holds 79 – perhaps that number has gone up since last I looked – 79 U.S. patents, mainly on the ways to make the internet easier to use.

So perhaps we could start with Hoa. Tell us about the very basics of usability, at least as you define it there.

LORANGER: Well, usability is something that focus very heavily at our organization, and as you see, by Jakob's patent numbers. But basically what usability is, is an understanding of how we can match technologies and design to human capabilities and limitations.

And so, in the usability process, what we generally do is observe people's behaviors, see how they work with interfaces, and discover what is easy or difficult about those interfaces. We take people's feedback and then we try to design products and services that will match their abilities.

KENNEALLY: As a general rule, is it safe to say that less is more?

LORANGER: What we do find, and this is supported by other psychological studies as well, is that the human mind can only contain a certain amount of information. If we give people too much, too many choices or too much information, then we encounter a situation of information overload.

KENNEALLY: Yeah, I always feel that way when I'm walking down the soda aisle these days.

LORANGER: Yeah.

KENNEALLY: There are just too many kinds of Diet Coke out there.

LORANGER: Right. And what happens when you are confronted with all of these choices is that you have to kind of weigh in all of the options and compare them.



So if we can streamline, simplify, if there are fewer things that people have to make decisions on, then in fact that is much easier for people to deal with.

KENNEALLY: Marieke, if I could bring you in here. How difficult is this to get across in a world where people have so much information and want to share it, and companies are obviously very eager to get some kind of competitive advantage by the kind of information they have. Is it difficult to get designers and their bosses to understand the necessity to be mindful of usability?

MCCLOSKEY: I think we definitely still have a ways to go, but I'm surprised how many companies are getting on board with this. They have their own user experience teams, or they hire outside consultants to help on big projects to get their Website the best it can be.

KENNEALLY: Let's turn now to a study that Nielsen Norman released in July on iPad and Kindle reading speeds. One of the things you looked at was to learn on which form factor people read faster. Let's ask our listeners to take a guess themselves on the answer, make mental note, and listen while we explore how Nielsen Norman came up with the answer.

So, what were you trying to get at when you looked at the various reading speeds on books or e-readers?

LORANGER: Well, the reason why we wanted to do this study was to find out if there were any advantages to reading on electronic books versus printed material.

Now, in years past, when we've done – us and other organizations – have done studies on reading speeds, comparing printed material with PCs, what we generally find is that reading on a PC is 25% slower than it is reading from print. And so now that we have electronic devices here out in the market and there is more popularity for them, we were interested in finding out whether or not the mediums will affect reading speed and overall user satisfaction.

KENNEALLY: So as a baseline, we just know, as you put it here, that reading on PC monitors is a kind of misery. People have been unsatisfied with that experience for some time now.

LORANGER: You know, in our usability studies when we see people use Websites and they're confronted by information or content that is very length, very in-depth or dense, people have a likelihood of printing it out, rather than wanting to read it online, simply because reading online is very uncomfortable.



KENNEALLY: Right. We should tell people that you chose a short story, actually a short story by Ernest Hemingway. I was wondering which one it was.

LORANGER: We had them choose four stories.

KENNEALLY: Oh, I see, they got a choice, that's great.

LORANGER: I'm sorry, we chose four stories and we rotated the stories and the devices. So we tried to counter-balance all of the conditions.

KENNEALLY: OK, but why Hemingway?

LORANGER: We wanted to give people something to read that was long enough so that it could simulate kind of a typical reading pattern, in terms of if people had to for example read white papers. But we didn't want people to have to read full novels, because that would take a very long time to do.

And so, the first thing was to decide, OK, well, we'll do short stories and then from there we selected stories based on the length. We wanted something that was long enough for people to be really engrossed in it, but not too long that they would be burned out by the end of the study.

KENNEALLY: Right. And you were trying to get at what I understood is called the immersive reading experience. This is what people, at least Apple, and I believe Kindle too, is trying to trumpet about their devices. That they allow for that immersion in the text.

LORANGER: Yeah, so the idea here is that on the Web, people tend to have kind of short bursts of reading. Where people are moving very quickly. They don't have a lot of time. And so they're scanning and skipping and looking for clues as to what the content is about. What our study was about was to take a different scenario in the sense that, you know, what happens when people are more engrossed in a story.

KENNEALLY: Right. So you didn't try to compare book reading to newspaper reading. That would be for another time, because that's an entirely different kind of experience.

LORANGER: Exactly.



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KENNEALLY: What kind of participants did you recruit for the study? Who were these people?

LORANGER: We wanted participants who are readers, who enjoy reading, and who would be likely to enjoy this kind of study. But we wanted to make sure they hadn't read on any electronic reader before, to sort of level the playing field. And so we recruited participants who read books frequently but had not yet read a book on an iPad or Kindle or any e-reader.

We also wanted to make sure that these participants were at least comfortable using computers. And so they had to be familiar with computers or use a computer on a weekly basis, so that they wouldn't be too uncomfortable trying to use an e-reader.

KENNEALLY: Right. Now, you didn't necessarily study this, but how difficult is it to teach people these devices? Are they fairly quick to learn them?

LORANGER: Yeah, we took a couple moments before each session started with a participant. They would come in one at a time and we took some time to introduce them to the different devices, and they got as much as they needed to sort of familiarize themselves with the device. And we helped them where necessary. And the time definitely varied between participants, but it didn't take them all too long.

KENNEALLY: Well, before we get to the reading speed, there was some other interesting data that you gathered along the way. And I guess one point was that you confirmed that people just really do not like reading on PCs. And yet, the difference between – in terms of reader satisfaction – iPad, Kindle and the book were all much the same, is that true?

LORANGER: Yeah, correct. I think what we tend to see is that people associate reading from the computer with work, and so that general experience is just less pleasant than reading a book on a book-like device, the format.

KENNEALLY: And if the difference isn't that significant between the printed book and either of the two most popular e-readers, your conclusion is that this offers some promise, then. That perhaps some of the pickup we're already seeing in e-book sales is an indicator that this is going to continue to climb.

LORANGER: Yeah. The results here that we found, in terms of kind of reading speed, although what we did discover was that the reading speeds were somewhat slower on electronic devices than on a printed book.



What was really interesting is that, you know, like as you pointed out, when we measured people's satisfaction levels for each of the mediums that were tested, they were fairly high and somewhat the same across all types, except for the PC, which was very low. And so, these results do indicate that there is a bright future for electronic books.

KENNEALLY: Well, Hoa, you just kind of, you know, alluded to the results here, and that is – and it's going to surprise people, I think, because if they were going to vote, I would have voted for either one of the electronic devices. I don't know why. But in fact, your survey has found people read faster still on the printed book.

LORANGER: Right. They do. They do read faster on the printed book. But what was really interesting is that the difference in speed is much smaller than it is for a PC.

But then what was really interesting is that when you couple this data with when we asked people which medium was more pleasant to leave, an overwhelming number of people chose the electronic book reader.

So, you know, what really is the conclusion for this? And it could be an indication that perhaps when you're looking at kind of linear reading formats, where people are kind of more immersed in reading things in a progressive level, then reading speed may not be as a strong need for this kind of content. Whereas when you talk about Web browsing, the need for speed is very important, and seconds really matter. But for reading longer formats, it's not the seconds that matter. It's more of the enjoyability, the experience of reading.

KENNEALLY: Well, it's almost like the difference between fast food or having lunch in the middle of the day. You just eat it because you need to eat it.

LORANGER: Yes.

KENNEALLY: But when you go out to dinner with friends, you don't mind spending three hours.

MCCLOSKEY: That's a great analogy. It's more about the enjoyment of reading. It's about absorbing every detail, taking in the information. And this is where deep processing kicks in. And so, it might take a little bit more time, but it might be a more enjoyable experience just because of the type of content it is.

KENNEALLY: Well, if I were a publisher, I would pay attention to that, I think.



This is Chris Kenneally with Beyond the Book. We're talking right now to two usability experts from the Nielsen Norman Group. We have Hoa Loranger on the line from San Diego and Marieke McCloskey from Los Angeles.

And you know, I want to kind of dive back into questions about design and iPad specifically. In a survey that you published back in May at the Nielsen Norman Group, you very early, I think at that point, the iPad was still about a month, a month-and-a-half old. It's quite remarkable to think that in the time since, they've sold more than five million units of iPads. And so it's been very fast in its uptake.

But you right away took a look at what people thought of the iPad, and one of the things that struck me was people were surprised by how heavy it was. For usability, talk about the importance of the form factor itself.

MCCLOSKEY: I think it's really important. Our study really wasn't – our goal wasn't to say, we're going to do a study and compare these two devices and see what is better. That wasn't our main goal. But what we did find was that, you know, the situation of use is really relevant in terms of what people preferred as the type of device to use.

So, for example, if you have someone whose main interest is travelling, for example, so portability might be more important. And so they're willing to give up some of the features that are available on the iPad to have a lighter, smaller, more transportable device, for example. Or if you have someone who likes to sit relaxed on a lounge chair and curl up to and read a long story for two hours straight, then perhaps they might pick up a lighter device to hold over time. But if you have someone who needs to have a format where context is very important and they need to reference, for example, images with content, then the iPad might be a better choice.

So really, what device is better is going to be dependent on the situation of use and, more importantly, what types of features are available on each one of those devices.

KENNEALLY: Well, that's quite interesting. And one of the findings, and it's just terrific to read some of these things, all of which are online at useit.com, for anyone who wants to have a look at it, but one of the reactions that people had, a sort of first impression, struck me as interesting.



And it gets back to this point about less is more. When people were asked to compare their impression of desktop Websites and iPad apps, they said one thing about the former and another thing entirely about the latter. Talk about that.

LORANGER: Yeah, this is from the iPad usability study.

KENNEALLY: That's right. Back in May, exactly. And so they were comparing the experience on the desktop with the experience on the iPad, and this gets to the heart of, as we were saying, about the less is more question.

LORANGER: Yeah, I think what we noticed in that study is that a lot of the applications were still designed with sort of the iPhone in mind and sort of transforming that for the iPad. We did see that Websites worked better, but there's sort of a lot to click on on Websites, and there's sort of more fine detail in a Website that an application doesn't have. An application has maybe fewer clickable items and it works better to interact with.

KENNEALLY: Well, you know, that's my own personal preference. I still find, and I believe in one of the studies, you were saying that some of what's going on today reminds you researchers of the early days of the Web. I just think that people are trying too hard to do too much with their content. Is that how you feel, Marieke?

MCCLOSKEY: Yeah, I think there's something to say to that. I think even the mobile Websites are sort of getting there at the – we need to make it clear what – we call this affordance – to have sort of knowing just by seeing an item on the screen what you can do with it, sort of what the interaction is.

And I think, indeed, again, less is more in this sense. Although really understanding how users interact with these devices, how they work on the iPad, it's really important to understand human behavior in this context.

KENNEALLY: Right. Well, you made some recommendations for a better user experience. Some of these things, of course, not simply about the iPad itself, but based upon the research that your firm has done. They include dimensionality and defining the individual interactive areas. And this one I like, going beyond the flat land. Perhaps you can tell me a bit more about that.

MCCLOSKEY: Yeah, well, the advantage to when you, say, when you pick up a book or a magazine or a printed article, for example, is that you see there's a beginning and an end. The book gives you an indication of how much information is in there. Just by looking at the thickness of that article, for example. But when you're



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looking at the same content on an electronic device, you don't necessarily have the same cues, for example.

And so when we design content on an electronic format, and we don't give people clear indication or context of where they are in that information space, and then we slap on a navigation scheme where we kind of make people play hide and seek, where they have to kind of tap on different places, click around and see if they happen to find where to go, it really backfires. Because then we're asking people to work harder to find the content, to figure out where they are in the information space.

KENNEALLY: Well, that's certainly one of my pet peeves. It's not that I'm lazy, but that I don't want to have to work to figure out what they meant and where they put it. It should be reasonably obvious, as you say, the way that it's obvious when you read a book or a newspaper, where do I turn, what's the beginning of this story, what's the middle of this story, all those kinds of things.

MCCLOSKEY: Yeah. And when we're designing these things, we have to keep the user in mind. You know, what is the purpose of that user or that person for coming to this content in the first place? And it's not to mess around with the navigation. It's to find information. And so we need to make information findable for users without having them guess.

KENNEALLY: Right. Well, if people in the audience wanted to learn more and get more deeply into this, they have an opportunity to this fall. The Nielsen Norman Group is holding its Usability Week 2010, which is kind of a joined series of conferences around the world actually, and perhaps you could tell us a bit about those.

MCCLOSKEY: Coming soon, we have conferences in Europe, but we also have conferences in the United States. The ones that are coming up are in San Francisco and Las Vegas, where we're going to be talking about various usability topics, from Web design to mobile design, for example. So the San Francisco conference will be on October 3rd to 8th, and the Vegas conference will be December 5th through the 10th.

KENNEALLY: Well, you know, as a writer myself, but beyond design and sort of teaching the fundamentals of usability, you've got a course in writing for the Web. Is writing for the Web different, very briefly, than it is for writing for the book or the newspaper?



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MCCLOSKEY: Writing for the Web is very different than writing for printed material. On the Web, people do not have a lot of time. They're skimming. We've done studies to see what the scan patterns are, and what we find is that people don't read to the end of sentences. They are looking for keywords. And so in our workshop we talk about how do you write for an audience who don't have a lot of time and don't want to read.

KENNEALLY: Well, you know, I'm afraid that seems to be the conundrum we're all in. There's so much we want to read and so little time to do it in.

I want to thank for joining me today on Beyond the Book, two usability experts from the Nielsen Norman Group. We've been speaking with Hoa Loranger, which is a director in the firm's San Diego office. Hoa, thank you very much for joining Beyond the Book.

LORANGER: Thanks, Chris.

KENNEALLY: And we also had on the line from Los Angeles and the Nielsen Norman Group's office there, Marieke McCloskey, who is a user experience specialist. Marieke, it's good to have you here.

MCCLOSKEY: Thanks for having us on the show, Chris.

KENNEALLY: Right. Well, for everybody at Copyright Clearance Center, this is Chris Kenneally for Beyond the Book, hoping you'll join us again very soon. Thanks for listening.

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