

I would like to thank the FTC for inviting me to participate in this panel and offer a special thanks to Linda and Beau for all of their hard work in creating actual advertisements for us to look at. It is always a difficult challenge to build something on short notice, so I appreciate the effort and work that went into each of these designs.

My background is in human computer interaction and informative design practices for software with security and privacy implications. In my domain, we have a concept of informed consent we describe as “feedback” and “control”, which is similar in some ways to the legal concepts of “notice” and “consent”. An application provides adequate feedback when consumers are made aware of actions the computer has taken “behind the scenes” on the consumer’s behalf. An application provides adequate “control” when consumers are provided ways to easily manage what the computer does on their behalf, and to prevent it doing anything additional without their explicit consent. The goal of providing adequate feedback and control is to encourage transparency in the application design. One goal of transparency is to inform consumers of the consequences of their actions, so that they can use this information to guide their interactions with the computer application. Since it is impossible for every system to know every possible setting a user would desire, it is important that the user can understand what the computer is doing so that they perform the actions that they are most comfortable with and they clearly understand any trade-offs involved. The goal is to establish a common level of understanding between the application and the consumer about the actions they are taking, so there are no unpleasant surprises. In the case of negative options, designing so that consumers are not surprised later by additional charges seems advantageous to both consumers and sellers, both to reduce costly chargebacks and maintain customer loyalty and satisfaction.

In analyzing the designs presented today, I used the Human Computer Interaction (HCI) concepts of “feedback” and “control” to guide an evaluation of issues that may arise when consumers are attempting to complete a shopping task and need to be adequately informed about the negative option portion of the purchase. I sincerely hope that methods and results from prior empirical findings in the field of human computer interaction as well as the experimental work we are doing in our own research with notice design will assist designers and policy makers in creating better designs for negative options.

In going through both designs, I noticed two major obstacles that a designer would have to overcome in order to adequately inform the end user about the negative option. The first obstacle I will call “inertia”, the second I will call “attention”. Shopping carts are a fairly common part of the web and our online shopping experience. They follow a fairly standard linear progression from order to check-out that varies little between sites. Consumers are used to a certain interaction, and are also highly motivated to complete the task as quickly as possible. Once people want to buy something, they generally become impatient waiting in line to checkout, or clicking through screens to complete the transaction. Therefore, they have a great deal of “inertia” in completing these transactions that is supported by their prior experience and their current mental state, and are prone to move through this process quickly and almost through habit. Stopping this inertia that consumers have is one challenge. In some cases, predictability is more important than

the number of clicks. Research by Nielsen has shown that if consumers know what the process is and know that it is leading up to a desired end goal (for example, completing an online purchase,) they can have higher levels of satisfaction even if there are more clicks than not knowing what the process is going to be and having fewer clicks. This result demonstrates how important it is that consumers don't feel distracted, lost or pulled away from their main task when we provide them additional notice. We should be able to add more clicks if we maintain a logical progression. Therefore, any change in the standard shopping transaction that deviates from the standard flow and possibly confuses consumers about the end process could lead to more user frustration and cart drop off.

Catching the consumers' attention is difficult as well. As stated in the case of inertia, previous experience and habits may dominate consumers' attention, causing them to miss certain text and cues that designers may create in order to inform consumers about their choices. Additionally, as consumers become habitualized to certain design practices, they tend to ignore peripheral design that is not related to their main task, so it is more difficult to grab their attention. For example, any text placed next to navigation icons or graphics will likely be ignored. Likewise, any text or graphic that is around a banner add or looks like a banner add will be ignored as well. End consumers have trained themselves to ignore them.

Another challenge of getting consumers attention is keeping the like items grouped together and putting them where consumers have a chance of seeing them. Research has shown that the consumers' eyes generally follow the mouse, so it is important that information that is to be read should be where the mouse is most likely to be. In the case of the shopping cart, it seems likely that this will be the text about price, shipping and final cost.

Finally, popups as a means of getting attention don't really work. In our own work we have found that end consumers are experts at "swatting away" pop up adds or messages when they are in the process of completing a task. Also, technical measures such as pop up blockers will typically block javascript popups that occur on each load, or in passing. If a consumer is using any one of these, there is a strong chance that they won't see the pop up notice at all.

With that background, I will discuss the first advertisement (presented by Linda).

Slide 1: The gradient used in the notice, along with the phrase "click here" and the positioning, may appear to end consumers as a banner add. Research by Nielsen and Norman suggests that many consumers have trained themselves to ignore banner ads, so in this case they may ignore this notice as well. Additionally, the pop-up notice that appears as users move to the next page is problematic as it distracts from the logical progression and flow of the checkout process, and hides information underneath. Additionally, our research has found that users have trained themselves to "swat away" pop-up notices quickly. In many cases we have seen users automatically click on the close button without glancing at all at the content of the actual pop up notice.

Slide 2: In this case, the asterisk text is hard to find, and is away from the main focus of the user's attention, which is the price and quantity in the middle of the screen. Additionally, in terms of flow, it may be better to include the notice of the free trial membership closer to the price in this slide, as it pertains to the actual cost of the item and would be where a consumer may look for it.

Slide 4: In this slide, the notice is in a slightly awkward location. Nielson states that like items should be grouped together and that item grouping should be kept consistent. The current location of this notice breaks the grouping, and makes it harder for consumers to notice it and associate it with their purchase. Additionally, this notice is in a location where users are filling in personal information for their order, and are not in the frame of mind of making purchasing decisions. It breaks the logical flow of the shopping experience as well. Ideally, the notice would be in a position where it was most likely to be useful to the consumer, which is likely to be at the point of purchase or when they are reading about the actual item.

Slide 5: This slide has good feedback and keeps the notice in line with the purchase items. It provides feedback to consumers, and a way for them to control the outcome of their decision by continuing to purchase the item or cancelling the order. In terms of improving the design, the feedback, while good, may be inadequate for some consumers as it would require additional steps for the consumers to determine what exactly is the free trial membership, how does it relate to future billing and how to cancel later if they don't want to continue. A good way of making this more apparent is to have an opt in control at this location.

Slide 6: I am not sure how this pop-up is being generated, but as mentioned previously, pop-ups in general are ineffective in providing users notice. They distract from the flow, and in many cases consumers have installed pop-up blockers that will prevent these popups from even being displayed.

Slide 7: This slide provides better feedback to the consumer. The notice is short and concise and uses bullet points. The notice is also placed by credit card information, giving users an opportunity to see it. The font may be too small though, giving an appearance of EULA text, which we have found is universally ignored. As the consumer enters her credit card number, she will be looking back and forth between their card and the screen, which may distract her from reading the text below the credit card information. Once the credit card information is entered, the user will want to move forward, so the opportunity to catch the consumer's attention is before they enter their credit card information.

Slide 8: It has similar issues to slide 4, as described earlier, with the added problem of a pop-up window.

Slide 9: It has still better feedback, a more complete description and has a description of how to cancel the subscription at a later date. It gives the option to cancel online at the [cooksclub.com](http://cooksclub.com) or by phone. The font may still be too small however, and it still seems to

look like EULA text, which consumers may end up ignoring. While the cancellation information is helpful, it may be the case that the consumer won't remember cooksclub.com or the telephone number later. While it is outside the scope of this design project, it would be useful to have this information in an email receipt sent to consumers, as well as a means to go back to the site that they made the order from and cancel from there as well. We are of the opinion that the means for canceling an order should be the same means as the order was placed, and that this is simplest for the consumer to understand and easiest for them to remember. For example, if I placed the order on the web, I should be able to cancel on the web.

I will now discuss Beau's presentation

Slide 4: This slide provides the consumer good feedback on the negative option. It is located in a position where users are already prepared to read about the product and make a decision about it, as well as prior to the shopping cart experience where they are mainly concerned about checking out. One potential problem with this design is that it still runs the risk of being ignored because it looks like EULA text, is lengthy and verbose. Short bullet points as described previously may be more effective.

Slide 5: This slide provides good notice and feedback to the user, has a large font size and is easy to read. It may also be too verbose, and may look too much like a EULA in which case consumers may click through it. It is also disconnected from the product purchase and description, and may need to be tied back to the actual item being purchased or risk being ignored.

Slide 6: This notice provides good feedback at a time when a consumer is making the decision to check out and purchase the product. The text is clear, but perhaps too verbose and in paragraph form that also looks like EULA text so it may be ignored. Making the text to bullet points, could help. The heading note may be too ambiguous as well, so changing it to something that reflected the content of the text specifically, such as "Important information for your 30 day trial" or more directly "After 30 days your card will be billed, info below:" may help. At this point, it may be useful to put the free subscription as a line item along with the gift wrap and other purchase decisions, as the consumers focus will be on that portion of the screen at this point, giving them a better chance to notice it.

Slide 7: This slide is very similar in design to the previous presentations slide 7 as well as slide 4. Consequently, the challenges that the earlier slides had apply to this slide as well. This slide does a good job of including an opt-in control, and of putting the text above the credit card data entry boxes, where it may be more likely to be noticed. The addition of the opt-in box is helpful, but we have seen in our experiments that when consumers are motivated to progress to the next screen or complete their task, they sometimes click any selection boxes automatically out of habit without taking the time to read them.

Slide 8: It does a great job of including the additional purchase and membership information in line with the other purchase information. In this screen, the consumer will already be reading and scanning the items in the list to confirm their order, so putting this information here gives it a high likelihood that it will be read. One possible issue with this design is the “click here” link, which implies that the consumer would need to break their current flow in order to learn more about the offer and the additional charges. Without any additional information about possible future charges, the “click here” link runs the risk of being ignored as well. Adding a bullet point to describe the additional potential charges at this point such as “free for 30 days/ 4.95 per month billed automatically after”, may be helpful and would reduce the need for consumers to click in order to understand what free implies.

Slide 9: This slide has a great design that attempts to address the issues I described earlier about inertia and attention. To outline briefly, the design has good inclusion of a line item description at time of decision making, manages attention well by providing a good use of opt in choices to facilitate reading, and makes good use of highlighting and fonts. The fonts are the same size as the other fonts on the page, and the layout does a good job of drawing the users attention to the fact that a choice needs to be made and there are two possible options, both clearly labeled yes or no. All of this information is above the checkout button where it is most likely to be seen and not mistaken for navigation text or missed as the user moves forward to the next screen. The additional use of data validation as a means of guaranteeing that the users take one of the opt in choices is helpful as well. All in all, I feel this slide does a great job of informing the consumer of the additional purchase as well as providing information and transparency about the purchase details.

I would like to thank the designers again for their hard work. Effective notice design is difficult, and I commend the designers on their efforts. I should note that the analysis performed here today is based on prior experience, prior research and certain guidelines and practices established in the literature, but to truly test the effectiveness of these add designs it would be important to perform an empirical evaluation of their effectiveness and a user study.

Designing for informed consent is difficult as we find in our own research. Computer based notices are an important part of our interaction with the virtual world, and are becoming more pervasive and increasingly relied upon to obtain informed consent. The problem is even more difficult as users become habitualized to certain interfaces, and as these notices are overloaded with additional information and functions far beyond their originally conceived scope. I would caution against believing that because of these difficulties, the problem of providing end users informed consent is intractable. I feel that encouraging designers and policy makers creating strategy for establishing guidelines for notice construction and implementation based on empirical research is key to addressing current issues.

As demonstrated in the designers’ presentations, there are many possible improvements we can make now based on what we already know that could greatly improve the

consumer's current experience, and provide a strong base from which to build on for the future. I encourage designers and policy makers to look at current best practices, empirical studies and research to come up with these recommendations. As my colleagues have stated earlier, I also feel this is an important problem and an important discussion to be having. I want to thank the FTC, advocates and industry for providing a forum to discuss these issues, and also thank you for inviting me to be a part of this conversation.