

1 PEOPLE PROCESS INFORMATION BETTER IN BITE-SIZED CHUNKS

The brain can process only a small amount of information at a time—consciously, that is. (The estimate is that you handle 40 billion pieces of information every second but that only 40 of those make it to your conscious brain.) One mistake that presenters make is giving too much information all at once.

USE PROGRESSIVE DISCLOSURE

Progressive disclosure means providing only the information people need at the moment.

At one presentation I attended, the presenter was giving a demonstration of tax accounting software to tax accountants. If she had been using progressive disclosure, she would have given a high-level demonstration from beginning to end and then gone back to fill in the details. Instead, she gave an exhaustive description of step one. Before she even got to step two, everyone's eyes had glazed over. It was too much detail too fast.

SHOW ONLY ONE PIECE OF INFORMATION AT A TIME

I am not a fan of having a lot of bullet points or text on a slide. If you are going to use a slide with bullet points, consider having only one bullet point appear at a time. This is easily done with presentation software and is a way to use progressive disclosure so your audience doesn't have to look at a slide with a lot of text.

The origins of progressive disclosure

If you go to Wikipedia and look up the term *progressive disclosure*, you'll be taken to an article that talks about the use of the term in software design. (The Wikipedia article refers to Jack Carroll at IBM, but his name is John Carroll.) Carroll may have talked about the principle of progressive disclosure in software interface design, but the term originated in the field of instructional design. It was first used by J.M. Keller, a professor of instructional design, who came up with an instructional design model called Attention, Relevance, Confidence, and Satisfaction (ARCS) in the early 1980s. Progressive disclosure is part of the ARCS model: present only the information the learner needs at that moment.

KNOW WHO NEEDS WHAT WHEN

Progressive disclosure is a great technique, but it assumes that you know what most people want most of the time. If you haven't done your research on that, then your presentation can go awry.

Takeaways

- * Use progressive disclosure. Explain, show, and illustrate your information in steps.
- * Before you use progressive disclosure, make sure you've done your research and that you know what most people in your audience already know and what information will be new.

2

PEOPLE NEED CONTEXT

Have you ever listened to a presenter who obviously “knew his stuff” but was hard to follow? It’s a problem when presenters know their material well but forget that the audience may not be as familiar with the topic.

Making a presentation is like walking up to strangers on the street and launching into your ideas. Your audience may not have a lot of background on the topic. And even if they do, they have other things on their minds and may not be as ready to hear what you have to say as you think they are.

USE ADVANCE ORGANIZERS TO PROVIDE CONTEXT

In order to not overwhelm people, you need to provide context. And an easy way to provide context is to use an advance organizer, which is a high-level summary of the information that is coming next. Advance organizers help people understand what they are about to be presented with.

- ★ In the chapter “How People Listen and See,” there is a section on using titles on slides. Even something as simple as a title on a slide acts as an advance organizer, since it provides context.
- ★ Providing a diagram that shows how a process works before you talk about the details is an advance organizer.
- ★ Showing an outline or list of topics that the presentation will include is an advance organizer.

A story or brief summary at the very beginning of a presentation is also an advance organizer. For example, at a recent presentation I gave to a group of interactive marketing professionals, I started this way:

Recently I was working with a client who has a Web site that is used by people with serious medical problems. He is working on a redesign of the site. I asked him what he thought people were feeling when they came for information at the site. Were they confused? Overwhelmed? Scared of the medical issues they are going through? My client looked at me blankly and said, “Our Web analytics indicate that our conversion rate is about 5%.”

“OK,” I responded, “but what do you think is the emotional state of the people when they come to the site?”

He shuffled some papers and said, “The average amount of time people stay on the site is 1.68 seconds.”

Sometimes I think we get so caught up in data and analytics that we forget that it is people who are coming to our Web sites. If you forget that you are designing for people, then your site won’t be effective in communicating to those people and you won’t achieve the goals you have for your site.

In this presentation, I’m going to share with you the most important insights that the field of psychology has to offer on how people think, learn, and feel that apply to the design of Web sites.

This introduction provided context for what I was going to talk about, as well as why it was important to the audience. (There are more details on how to start off your presentations in the chapter “How to Craft Your Presentation.”)

Takeaways

- ★ People need context to understand what you are saying.
- ★ Remember that your audience may not be experts on the topic you are speaking on and will need context to understand some of the ideas.
- ★ Remember that your audience may come into the room with a lot of different things on their mind.
- ★ Use advance organizers at the beginning and even throughout your presentation in order to help set the context for what is coming next.

3

PEOPLE FILTER INFORMATION

I'm a staunch Apple convert. I wasn't always an Apple fan. I used to be a Windows/PC person. Realize that I go all the way back to when PCs first came out. I used to have a marvelous "portable" PC that ran on a CPM operating system and had two (count 'em, *two*) 360 KB (yes, I said KB) floppy disk drives (in other words, *no* hard drive). I was a PC person, *not* an Apple person. Apples were for teachers and then later, for artsy people. That was not me.

Fast-forward to today and I will be talking on my iPhone, while charging my iPod for my afternoon exercise, while transferring a movie to my iPad from my MacBook Pro, which I might decide to watch on my television via Apple TV. What the heck happened here? (I describe the story of how I changed my loyalty from PCs to Apple in my book *Neuro Web Design: What Makes Them Click*. It's a matter of starting with small changes and commitments and then growing to more loyalty.)

So you might be able to guess what happened when I went to dinner with a colleague who was showing me his Android phone. He loves his new Android phone and wanted to show me all the ways it was as good as, or better than, my iPhone. I was totally uninterested in hearing about it. I didn't even want to look at it. Basically, I didn't want to allow into my brain any information that would conflict with my opinion that nothing besides an iPhone was even a possibility. I was filtering the information.

People seek out and pay attention to information and cues that confirm their beliefs. They don't seek out—in fact, they ignore or even discount—information that doesn't support what they already believe.

Filtering is often useful, since it reduces the amount of information we have to pay attention to at any one time. But filtering can sometimes lead to bad choices or a lack of action.

Psychologists call this filtering *confirmation bias*. People tend to favor information that confirms their existing beliefs. They tend to gather evidence and remember information selectively. The more strongly they believe something, the stronger the confirmation bias is.

HOW DO YOU STOP PEOPLE FROM FILTERING?

When you are making a presentation, you want people to be open to the ideas that you are presenting. If they are doing a lot of filtering, then your ideas won't have a chance of being heard. In order to get past the automatic filters that your audience may have, you may need to:

Start with what you know they believe. If you start your presentation with the opposite of what they believe, they may turn you off right away. For example, if

you start a presentation to me by saying how amazing Android phones are or that Android phones are superior to iPhones, then you've likely lost me already. But if you start with an idea I agree with or know about—for example, how amazing iPhones are—then you have a chance of getting through to me.

Surprise people. One way to get past people's filtering is to present them with information or an experience that they did not expect. For instance, I recently heard that over 50 percent of smartphone sales are Androids and only 33 percent are iPhones. That surprised me and made me stop and think, "Perhaps I should find out more about Android phones."

Set up a situation of cognitive dissonance. In 1956, Leon Festinger wrote a book called *When Prophecy Fails*. In it, he describes the idea of *cognitive dissonance*, which is the uncomfortable feeling a person gets when they are presented with two ideas that they believe might both be true. For example, if I believe that I am a person who cares about others but I don't give money to charitable causes, then I now have cognitive dissonance. The two ideas conflict with each other, and the cognitive dissonance will make me feel uncomfortable. I can either deny one of the ideas (for example, I can deny that I'm a caring person or deny that I didn't give any money to charity this year) or change my behavior to get rid of the dissonance (for example, I might now be interested in giving a donation to the charity I hear a presentation on).

Takeaways

- * Assume that people will be filtering your information and point of view according to their own beliefs.
- * The more you know about your audience ahead of time, the more you can anticipate the filtering they might be using—and therefore, the more you can work into your presentation ideas that will get past the filtering.
- * When introducing people to a new idea, confirm a belief or idea they already have ("I know you all love your iPhones") so they feel they are understood and heard.
- * Look for and present ideas and data that will surprise people in order to get past their filters.

4

THE MORE UNCERTAIN PEOPLE ARE, THE MORE THEY DEFEND THEIR IDEAS

In #3, I mention the idea of cognitive dissonance—the uncomfortable feeling you get when you have two ideas that conflict with each other. You don't like the feeling, so you try to get rid of the dissonance by either changing your belief or denying one of the ideas.

In the original research on cognitive dissonance, people were forced to defend an opinion that they did not believe in. The result was that people tended to change their beliefs to fit the new idea.

WHAT HAPPENS WHEN PEOPLE ARE FORCED TO SUPPORT NEW IDEAS?

In recent research by Vincent van Veen (2009), researchers had people “argue” that the fMRI scan experience was pleasant (it's not). When “forced” to make statements that the experience was pleasant, certain parts of the brain lit up (the dorsal anterior cingulate cortex and the anterior insular cortex). The more these regions were activated, the more the participant would claim that he or she really did think the fMRI was pleasant.

WHAT HAPPENS WHEN PEOPLE AREN'T FORCED TO SUPPORT NEW IDEAS?

There's another reaction that sometimes occurs. What if people are *not* forced to state they believe in something that they actually don't believe in? What if they are instead presented with information that opposes their beliefs, yet they aren't forced to espouse this new belief? In these situations, the tendency is to deny the new information instead of changing their beliefs to fit.

IF UNCERTAIN, PEOPLE WILL ARGUE HARDER

David Gal and Derek Rucker (2010) conducted research using framing techniques to make people feel uncertain. For example, they told one group to remember a time when they were full of certainty, and the other group to remember a time when they were full of doubt. Then they asked the participants whether they were meat eaters, vegetarians, vegans, or otherwise, how important this was to them, and how confident they were in their opinions. People who were asked to remember a time of uncertainty were less confident of their eating choices. However, when asked to write their beliefs to persuade someone else to eat the way they did, they would write more and stronger

arguments than those who were certain of their choice. Gal and Rucker performed the research with different topics (for example, preferences for a Mac versus a Windows computer) and found similar results. When people were less certain, they would dig in and argue even harder.

Takeaways

- * When a belief is deeply ingrained, it will be hard to change. Be practical and realistic. Try for small changes in belief instead of expecting everyone to have a huge “a-ha” moment and instantly change a belief they have had for a long time.
- * Ask for a show of hands on certain beliefs during your presentation. This will have a twofold effect: it “forces” people to decide, which will make them less likely to defend old ideas, and it may help them change their belief if everyone in the room believes differently.
- * Instead of just giving people evidence that their belief is not logical or tenable or a good choice, instead offer the benefits of a different belief.

5

PEOPLE HAVE MENTAL MODELS

Let's say that the company you work for is being acquired by another firm. You are going to a presentation about the acquisition. You haven't met the presenter or gone to the presentation yet, but you already have some ideas about what the acquisition will be like and what the presenter is likely to talk about. Your ideas or assumptions might be incorrect, but you have them before the presentation begins. You have a mental model about the acquisition process and about the presentation.

What that mental model in your head looks and acts like depends on many things. If you've been through an acquisition before, your mental model of the acquisition process will be different than that of someone who has never been involved in an acquisition or who doesn't even know what an acquisition is.

When you present to an audience, you aren't presenting to people who have a blank slate of the topic. Before you say one word, they have a mental model of what you are going to talk about. They have expectations, and these expectations can affect how they react to what you have to say.

WHAT EXACTLY IS A MENTAL MODEL?

Many of the definitions for mental models have been around for at least 25 years. One of my favorites is from Susan Carey's 1986 journal article "Cognitive Science and Science Education," which states:

"A mental model represents a person's thought process for how something works (i.e., a person's understanding of the surrounding world). Mental models are based on incomplete facts, past experiences, and even intuitive perceptions. They help shape actions and behavior, influence what people pay attention to in complicated situations, and define how people approach and solve problems."

HOW MENTAL MODELS AFFECT YOUR PRESENTATION

If you are going to give an effective and persuasive presentation, then you need to understand the mental models of your audience. How much do they know about the topic already? How do they feel about the topic? How are they going to filter the information? The more you know about the audience's mental models, the better you will be able to craft a presentation that fits them.

In order to understand the mental models of your audience, you need to do some research. Talk to your host about the people who will be coming to the presentation. Ask any relevant questions about their beliefs and experience. For example, when I am

speaking to an audience about applying psychology research to the design of Web sites, I will have a meeting with the host and ask:

- ★ What are the job titles of the people who will be attending?
- ★ How much experience do the attendees have with designing Web sites?
- ★ How much knowledge do the attendees have about psychology?

If I find out that the audience is mainly programmers who have worked for large corporations and are now transitioning to being Web designers, that tells me that psychology principles applied to Web design will likely be a relatively new topic, and that their mental models of how to design a Web site probably don't include spending a lot of time thinking about the psychology of their Web sites' users.

On the other hand, if I find out that the audience is mainly Internet marketing people who have recently conducted extensive interviews with their target audience, then I know that this audience will have a mental model about Web site design that includes understanding the psychology of their users.

If I know the likely mental models in operation, then I will make decisions about what material to present, and in what order, so that the presentation is informative, interesting, and persuasive. In the chapter "How to Craft Your Presentation," you will learn more specifics about how to use this type of information to focus your presentation and customize it to your audience.

Takeaways

- * People always have a mental model.
- * People get their mental models from past experience.
- * Not everyone has the same mental model.
- * The more you understand your audience's mental models about you and about your topic, the better able you are to craft a more effective presentation.