white space

Through our experience we've learned that if you want to do something well, you have to know something about it. We would like to share some of what we have learned with you. Our newsletter is where you'll find marketing and visual communications topics related to retaining, communicating with and growing your organization's

What You See is not What You Get—Colors on a Computer Screen

On February 30th 2004 a famous newspaper ran an article that instantly sent the graphic design community into a tale spin. The article was about a regular guy who had just arrived at work and happened to notice a box from the graphic design firm he had hired to create his business cards. According to an eyewitness testimony, this man was very excited to be receiving his business cards and was screaming like a little boy as he opened up his extremely early Christmas gift. However, upon opening the box his secretary heard a blood-curdling shriek and looked over at her boss to notice he had dropped the box and was grabbing his heart. His last words were, "That's not what it looked like on the computer."

As a graphic designer I feel it is my duty to explain why this incident (that didn't happen) happened to better ensure the lives of anyone dealing with a graphic design firm and to also make sure this man's misunderstanding was not in vain.

As you may already know, a distinct difference can exist between color examples from the computer screen and printed swatches. On-screen colors (transmissive color) are typically described as being more intense and brighter than printed hues.

Here's why:
When you look at colors on a computer screen, the colors are made according to a system that is similar to the way the human eye distinguishes color. This is the RGB (Red, Green, Blue) system. In the RGB system, all colors are derived from combinations of Red, Green and Blue. This system is an additive color system as colors are added to a black background on the monitor. However, printed inks are usually composed from two different systems altogether. Printed inks use either the CMYK (Cyan, Magenta, Yellow, Black) system or the PMS (Pantone Matching System).

The CMYK system is considered a subtractive color system, and in this system all colors are made from the combination of four colors: Cyan, Magenta, Yellow and Black. CMYK is usually used in multicolored layouts and magazines because of the simple ability to print so many colors by mixing just four tones.

PMS colors are comprised from nine basic colors, including white. From the specific combination of these nine colors, PMS can produce over 700 exact colors. This system is often used in creating business cards and letterheads.

whitespace

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As you can see, the main difference in on-screen colors as opposed to printed ink colors occurs because all three systems described above initially combine different colors that make different tones. This is the reason why what you see on your computer screen may be different than what is actually printed. That is why a graphic design firm takes the time to explain this issue to a client if proofs are being sent at any time by computer. Also, before the mass printing of any project, a hard copy of the product should be handed to the client for approval.

Now that you possess this knowledge, every package you get from a graphic design firm should be like receiving a present on the holidays. It should also cut down on your visits to the cardiologist.