

This is your brain on PowerPoint

By Clive Thompson, 7/6/2003

Boston Globe

The business world loves PowerPoint. Walk into any office meeting today, and you'll see someone deliver a presentation using Microsoft's "slideware" program-complete with spinning icons, animated bar-graphs, and 3-D pie charts-projected onto a screen. There are several trillion PowerPoint slides generated each year, and few corporate decisions are made without executives relying on the software.

But what if it's actually harming our ability to think?

Such is the bold thesis of "The Cognitive Style of PowerPoint," a searing little broadside released recently by Edward R. Tufte, the theorist of information design and author of the acclaimed book "The Visual Display of Quantitative Information." "The PP slide format has probably the worst signal/noise ratio of any known method of communication on paper or computer screen. . . ," rails Tufte. "For statistical data, the damage levels approach dementia."

Yikes. The main problem, Tufte suggests, is PowerPoint's low resolution, which allows only a tiny amount of information per slide. The average PowerPoint slide fits about 40 words, or 8 seconds worth of silent reading, many times less than the average paper handout. With such haiku-like limits, presenters are forced into intellectually mangling even the simplest of topics. Worse, PowerPoint relentlessly encourages its users to employ bulleted lists, which are "faux-analytical"-they can't communicate complex relationships between points. (They are also, notes Tufte, a mirror of Microsoft's whole corporate style: one-line-at-a-time computer code that can't abide complexity.) Bulleted lists are about selling an idea, rather than explaining it. "What counts are power and pitches, not truth and evidence," Tufte argues.

While PowerPoint makes it remarkably easy to include data graphics, users typically use them to convey only a few data points. As Tufte argues, that negates the whole reason data graphics are useful-to allow comparisons between large amounts of data. The average data graphic in The New York Times, for example, includes 120 elements. The average PowerPoint graphic includes a mere 12 elements, not much more than those you'd find in Soviet propaganda journals. "Doing a bit better than Pravda," he notes drily, "is not good enough."

Except, possibly, in today's corporate world. Sure, PowerPoint may make it impossible to convey information. But that's just fine, if-like so many corporate drones we're forced to work alongside-you haven't actually got anything to say. Maybe Microsoft understands more than we imagine about our modern "Dilbert"-style office life. As Tufte glumly concludes, "PowerPoint allows speakers to pretend that they are giving a real talk, and audiences to pretend that they are listening.'