New Media Theory

KILLING ME MICROSOFTLY
ALMOST NOBODY SPEAKS IN PUBLIC ANYMORE WITHOUT USING POWERPOINT. BUT SOME LIKEN THE PROGRAM TO A COGNITIVE VEG-O-MATIC THAT SLICES AND DICES HUMAN THOUGHT.

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Halftime.
Your football team is behind--way, way behind--and there's a feeling in the locker room of heavy, clotted gloom. Everyone slouches on the floor against lockers and benches. Doom-induced lethargy pervades the place. Even the towels are too limp to swat at a teammate's derriere.
And then the coach appears. Moving purposefully to the center of the room, he eyes the despairing players. He rubs his hands together as if they were kindling for inspiration.
At this point, the coach can:
- Deliver a rousing, emotion-laced speech exhorting the players to press on in the face of tremendous adversity and daunting odds, or
- Cue up a PowerPoint presentation on the six keys to victory, including bulleted items such as "Proper blocking and tackling," "Exhibiting a winning attitude," "Turning weaknesses into strengths" and "Don't focus on the scoreboard," along with a multi-media photo montage of memorable game-winning plays set to the soundtrack of "Rudy."
Which approach is more likely to send the team back onto the field poised for a comeback?

Your answer instantly drop-kicks you into one of two camps:
- Those who believe in the power of a freewheeling address, full of digressions and personal chemistry, to change hearts and minds most effectively.
- Those who believe in PowerPoint.

And while the cultural scoreboard may be invisible, this much is indisputable: The PowerPoint people are winning.

Actually, it's not even close. PowerPoint, the public-speaking application included in the Microsoft Office software package, is one of the most pervasive and ubiquitous technological tools ever concocted. In less than a decade, it has revolutionized the worlds of business, education, science and communications, swiftly becoming the standard for just about anybody who wants to explain just about anything to just about anybody else. From corporate middle managers reporting on production goals to 4th-graders fashioning a show-and-tell on the French and Indian War to church pastors explicating the seven deadly sins--although seven is a trifle too many bullet points for an audience to absorb comfortably, as any veteran PowerPoint user will tell you-- the software seems to be everywhere.

The phenomenon parallels the rise of the presentation as the basic unit of group communication. To be sure, there have always been presentations--although Martin Luther managed to get his 95 theses across just by nailing them to a church door--but they used to be low-key affairs accompanied by chalkboards or large pads of paper on easels. A great deal of interpersonal communication got done simply by means of that reviled but effective tool known as the memo. Then came the 1970s, the era that brought us role-playing games, bonding and the sharing of feelings, soon to be followed by the 1980s, an epoch of networking, business retreats and mission statements. Communal settings began to be seen as the ideal venue for the transfer of information, not only because of various economies of scale but because the shoulder-to-shoulder atmosphere seemed to add validation to the material and a general bonhomie that helped cement the organization. Suddenly, like oaks toppling unheard in the forest, ideas seemed to lack existence if they weren't first trotted out in front of a large group of colleagues by a presenter armed with "visual aids"--overhead transparencies or photographic slides.
But slides and transparencies are often difficult to create. Moreover, the thought of presenting was enough to paralyze many people trying to make their way unobtrusively through the shoals of large organizations and research establishments. Nobody could possibly have enough slides to fill an entire presentation without verbal content. Sooner or later the speaker would have to . . . talk! . . . doing so from either a dry, prepared text or, God help them, from memory or even off the cuff.

It was into this breach that PowerPoint leaped. With

PowerPoint, you could fit your entire presentation onto a computer disk and use a laptop to project it, in sequential order, onto a screen that the audience could watch. All your information and visuals could be arranged on discrete "pages" or "slides" full of headings and bulleted points that broke your talk down into coherent bits, similar to the outlines that your elementary school teacher tried vainly to teach you in the days when the only networking you wanted to do was watch "Scooby-Doo" and "The Munsters."

All at once, no more slides, no more overheads. Visuals could be scanned directly into the computer and inserted at appropriate places in your program. If you wished, PowerPoint had a variety of graphics you could also nab. Best of all, while you couldn't put all of your spoken text onto the screen, you could get enough up there to quell your fears of public speaking. At best, you could embellish upon the bullet points, confident that nerves wouldn't cause you to lose your place as your talk proceeded. At worst, you could stand up there and just recite the bullets as your entire speech, reading them aloud off the screen as if your audience were a tribe of illiterate backwoodsmen who had somehow wandered into a presentation on "A Stochastic Approach to Inelastic Demand for Durable Goods Using a Multifarious Economic Model."

But PowerPoint has a dark side. It squeezes ideas into a preconceived format, organizing and condensing not only your material but--inevitably, it seems--your way of thinking about and looking at that material. A complicated, nuanced issue invariably is reduced to headings and bullets. And if that doesn't stultify your thinking about the subject, it may have that effect on your audience--which is at the mercy of your presentation.

Eerily, PowerPoint was invented in 1984, that iconic year of Orwellian mind control. That was when Bob Gaskins and Dennis Austin of the Silicon Valley software company Forethought created a PowerPoint precursor called Presenter, which soon was renamed PowerPoint. Forethought and its promising software brainchild were acquired in 1987 by Microsoft, and a Macintosh version of PowerPoint went on sale that year. A Windows version was added in 1990.

PowerPoint has been the subject of a jauntily amusing New Yorker profile, a distinction generally reserved for heads of state, notorious criminals or controversial entertainers. The

program is so widely used that it needs no introduction, no surrounding nest of associative explanation. Nobody tells the audio-visual guy at the university that has booked him or her to speak, "I'm going to use PowerPoint--you know, that software application that lets you use your computer to put cool stuff up on a screen with neat graphics and even a soundtrack if you want." And the software says something about you. Just to show up for a talk toting an old-fashioned carousel of slides is to label yourself the kind of individual who still has a bag telephone.

PowerPoint is way beyond branding. It left branding in the dust long ago. With more than 300 million users worldwide, according to a Microsoft spokesperson, with a share of the presentation software market that is said to top 95 percent and with an increasing number of grade school students indoctrinated every day into the PowerPoint way--chopping up complex ideas and information into bite-sized nuggets of a few words, and then further pureeing those nuggets into bullet items of even fewer words--PowerPoint seems poised for world domination.

Its astonishing popularity, the way it has spread exponentially through the culture, seems analogous, in a way, to drugs. Think of it as technological cocaine--so effortless to embrace initially, so difficult to relinquish after that. People who once use PowerPoint generally don't stop using it.

People who don't use it can't quite understand what all the fuss is about. And then they use it. And neither they nor their relationship to information is ever quite the same again.

Those who harbor reservations about PowerPoint, the iconoclasts who dare to question whether technology is always an unalloyed good, are difficult to coax into the open, so powerful is technology's grip on the human imagination in the 21st Century. Anyone who asks, "Yes, we can--but should we?" about any technology risks being branded an antediluvian.

Author Lewis Mumford neatly captured this prejudice in a 1970 essay in which he lamented a widespread "technological compulsiveness." Western culture, he said, "has accepted as unquestionable a technological imperative that is quite as arbitrary as the most primitive taboo: not merely [is it] the duty to foster invention and constantly to

create technological novelties, but equally the duty to surrender to these novelties unconditionally just because they are offered, without respect to their human consequences."

PowerPoint may be an easier, spiffier way to present information, but is it a better way? As the software spreads into more schools, as an increasing number of teachers employ it in their lectures and require students to use it in their class presentations, certain questions hover persistently just to one side of the glowing screen: Is PowerPoint changing not only the way we do business and educate our young, but also the way we think?

"I hate PowerPoint," says Jay Phelan, an evolutionary biologist who teaches at the University of California at Los Angeles and is co-author of "Mean Genes" (2000), a study of how brain structure affects behavior. "I'm one of the few," he adds ruefully.

Most of Phelan's colleagues use PowerPoint in their lectures and his students often request such presentations from him. But he resists distilling the contents of his lectures--the creative interplay of a teacher's knowledge and the students' hunger for ideas, as manifested in rhetorical display--into a series of bullet items.

"I spend a lot of time identifying what works in lectures," says Phelan. "It's not about a content transfer from the teacher to the other person. The students have the information. It's something else that gets conveyed in a good lecture. That gets lost when you use PowerPoint."
Is it changing our brains, though? Hard to say, Phelan replies, since evolutionary changes occur over millennia, not decades. Yet it is certainly affecting our creativity, he believes.

The point of PowerPoint--making presentations simple to prepare, so simple that a 2nd-grader can do it during commercial breaks of "SpongeBob SquarePants"--is what makes it dangerous to our imaginations, Phelan warns. "In their [Microsoft's] attempts to make PowerPoint easier to use, they have all these templates. They totally limit your ability to express yourself. Everybody's using the same color palette. It's one more way to choke the life out of creativity."
Indeed, the program helpfully provides something called AutoContent Wizard, which all but writes the presentation for you. From a hefty list of potential speech topics, you click

on the one you want, say, "Project Overview," "Selling Your Ideas" or "Managing HR's Changing Role," and the software burps out some 10 to 12 slides with prompts and even some virtual text.

Such principled contrariness as Phelan's may be fine for a high-minded professor trailing an Ivy League PhD--Phelan studied under renowned Harvard biologist E.O. Wilson--but for businesswomen and men, resistance to PowerPoint is futile, says Clarke L. Caywood, associate professor of integrated marketing at Northwestern University. "No one in business today could pretend to be facile in business communications without PowerPoint," he declares. "It's like being able to read."

Caywood, an early fan of the software whose passion has remained strong, says his own lectures and speeches are all done on PowerPoint, and soon the whole world may be doling out information in bullet items with diverting graphics thrown in. "I don't see anything on the horizon that's going to bump it," he says. "This [PowerPoint] is really smoking."
More than 80 percent of the presentations given by business school students rely on PowerPoint rather than the old-fashioned flowing narrative, Caywood says. And that's fortuitous, because once in the business world, those students will be employing PowerPoint on a regular basis, he adds. Indeed, a Microsoft spokesman once estimated that some 30 million PowerPoint presentations are made daily by business professionals around the world.

"I'm not guilty of any crime in asking my students to develop this ex pertise," Caywood says. "Every business requires it now."

But what's fine for a business professional might not be so fine for a child just learning how to think, how to connect ideas, says Sherry Turkle, a professor at the Massachusetts Institute of Technology and director of MIT's Initiative on Technology and Self.

"These technologies are changing the way we think," says Turkle. "They change how our kids grow up and how they process information. They're not passive."

Software such as PowerPoint tends to prize "binary assumptions," Turkle notes, by jamming complex thoughts into brief snippets. "We have a technology that is

encouraging us to see things in black and white--but is this a time when we need to see things in black and white? Good and bad? This kind of 'three bullets up and down' isn't helping us come up with the right kinds of arguments. It's not particularly what 3rd-graders need."

Turkle's reservations are not about PowerPoint per se--she uses it all the time, she admits--but with the increasing cultural mandate to have grade-school children become proficient in its use. "It's one of the most popular softwares in elementary and secondary schools," she says. "But PowerPoint doesn't teach children to make an argument. It teaches them to make a point, which is quite a different thing. It encourages presentation, not conversation. Students grow accustomed to not being challenged. A strong presentation is designed to close down debate, rather than open it up."

Turkle, author of seminal books on the cultural consequences of technology such as "The Second Self: Computers and the Human Spirit" (1984) and "Life on the Screen: Identity in the Age of the Internet" (1995), adds, "I don't want to make PowerPoint the motor for an apocalyptic future. But it's part of a general trend. It's one element among others that keep us from complexity. We face a very complex world. History is quite complex. Current events and literature are complex. Students are thinking and doing presentations on complicated things, and we need them to be able to think about them in complicated ways.

"PowerPoint is not a step in the right direction. It's an exemplar of a technology we should be quite skeptical about as a pedagogical tool."

How pervasive is PowerPoint among grade-school children? Exact numbers of PowerPoint users among the LePage's-and-Crayola set are hard to come by because, explains Eric Herzog, a product manager at Microsoft, individual school districts and sometimes even individual schools within those districts make their own decisions about technology use in the classroom.

"Overseas, we see more top-level decision-making. But in the United States, all states and all districts do it differently," says Herzog, who works in the company's Education Solutions division.

Microsoft supplies PowerPoint and other applications to

schools at a substantial discount, Herzog says. Although the software originally was intended for the business market, by 1998 "teachers had discovered it," he says. They used it to present lessons and, more recently, to help students hone their proficiency with computers.

"Teachers like it because it's a content-empty tool," Herzog continues. "It's an open-ended tool. All the ideas, all the creativity, comes from the kids. PowerPoint is a tool they can use to express their creative ideas."

But what about the charges that PowerPoint slices and dices complexity and ambiguity? That it changes kids' thinking from a flowering tree of associative learning and rapturous discovery to the grim lockstep of an outline with one-size-fits-all clip art? That its fancy graphics can mask a lack of actual content?

"It's important to make sure it's used in the proper way," Herzog states. "It's certainly not a replacement for other tools in the classroom."

Elizabeth Cochran, of the Chicago Public Schools, makes a similar point--a verbal point, that is, not a PowerPoint point: Technology is not inherently good or bad. Only its usage can be labeled that way.

"A PowerPoint presentation is not going to replace a long-term research paper," insists Cochran, an instructional technology coordinator. Technology is now part of the curriculum as early as pre-kindergarten classes, she says. "It supports engaged learning. The research does show that when teaching is used in ways that make students participants in their own learning experience, it enhances the educational experience. It's a way of capitalizing on student interest."

No one doubts that kids love gadgets and gizmos, but, critics ask, since when do we let students decide what's good for them? Isn't that like replacing spinach on the school lunch menu with Oreos?

At any rate, Cochran notes, "We live in the digital age. It's important to incorporate it. Regardless of what career a student goes into, be it a restaurateur or the president of IBM, there will be a level of technology they'll need.
"As I said, PowerPoint will not replace a research paper," she adds, "but if a student writes a paper, PowerPoint might

be a way to deliver that paper in front of a group of people. It can always be used in a way that's not effective. But a chalkboard can be used in a way that's not effective, too." The world of cultural observers, then, is large enough to contain both those enthralled by PowerPoint and those appalled by it, those who readily welcome new technologies and those who believe that all technologies need to be interrogated as relentlessly as murder suspects.

"I'm surprised at how resistant I've become to PowerPoint and such classroom technologies," muses Todd Parker, an English professor at DePaul University. "When they were first introduced, I thought I'd be happy to use such aids, but after trying several of them, especially PowerPoint, I've come to loathe them all with a passion--in particular because they easily become a crutch for the poor student and a stumbling block to students already too disengaged from the act of learning.

"My biggest complaint," Parker says, "is that they come between the teacher and his or her students. The danger is that class tends to devolve into a slide show from which students too often retreat to that room behind their eyeballs. My seven years at DePaul have taught me that the most valuable relationship between teacher and student is charismatic and immediate, one in which the teacher actively engages the students personally. This is hard to do when you turn the effort of instruction over to a machine. "I even think that it's less important what I teach my students than how I challenge them morally and intellectually." Hard to imagine a PowerPoint presentation doing that.

Yet Roger Graves, Parker's colleague in the DePaul English department, is a PowerPoint enthusiast. "The educational evidence in support of the use of this technology is too strong," says Graves, who routinely posts his PowerPoint-fueled lectures on the Internet for students to peruse at their leisure. "Used properly, this technology changes what goes on in classrooms . . . The core teaching skill is not lecturing or even orchestrating class discussion, but instead creating a learning environment and motivating students. The focus becomes more on learning and less on teaching." Howard Gardner, the well-known developmental psychologist who has written extensively about children's creativity and pioneered the concept of multiple intelligences, might seem like a perfect candidate to lead the anti-PowerPoint charge, especially in public schools, where

rote use of the software might channel kids' minds into preordained pathways. But he's a PowerPoint man to the bone.

"I certainly don't see it as bad for students and learners," declares Gardner, who uses PowerPoint regularly in his public lectures. "I certainly don't think that it stifles creativity, and might even stimulate it if the technology is used imaginatively and synergistically with other paraphernalia.

"Like any other technology, it can be overused and distorted," cautions Gardner, the John H. and Elizabeth A. Hobbs Professor of Cognition and Education at the Harvard University Graduate School of Education. "[But] PowerPoint is itself quite flexible and so there is no need for it to simplify or oversimplify students' presentations. If a student falls into a bad habit or uses it in a rigid fashion, teachers should give helpful feedback, just as if a student always wrote a paper in exactly the same way."

Others, however, bristle at the fact that PowerPoint presentations can be stamped out like machine parts. An essay by Thomas A. Stewart in an issue of Fortune last year was titled, "Ban It Now! Friends Don't Let Friends Use PowerPoint." Stewart argued that the software was turning business presentations into boring assembly-line products. "Why in the world would you want a uniform look?" Stewart asked, adding theatrically: "Never put more than three bullet points in a PowerPoint show, experts say. It confuses people. Keep it simple." Then with rich sarcasm: "You know that life is."

The Wall Street Journal reported last month on PowerPoint's relentless march into grade-school classrooms, raising a few mild concerns among educators that the software's bells and whistles, its dazzling doodads, could transform mediocre student work into triumphs--at least on a superficial level.

And it's the superficiality, not the fact that PowerPoint may dumb down complex ideas, that bothers Larry Nighswander. "People get overwhelmed with what they can do and forget that moderation is an important part," says Nighswander, director of the School of Visual Communications at Ohio University and a former National Geographic photographer. PowerPoint is now the preferred software of photographers making presentations of their work to professors or

prospective employers, Nighswander says. "But it can become visual noise. Nobody sees the content anymore. They're thinking, 'I wonder if this screen is going to blast out of the corner or break into little pieces?' When you're first shown what sophisticated software can do, you think, 'Oh, wow, I'll be able to do this or that.' It takes time to figure out if that can make a better presentation or if it's all just decoration.

"There's the old axiom in design that says, 'Less is more.' They should have that printed on the outside of the PowerPoint box. It needs a warning label."
So should all technologies, even the most benign-seeming ones, Neil Postman would say. Postman is the New York University professor who has turned out book after book asking us to stop and reflect before rushing headlong into technology's chilly embrace.

"Technology is ideology," he writes in his most famous polemic, "Amusing Ourselves to Death: Public Discourse in the Age of Show Business" (1985). "To be unaware that a technology comes equipped with a program for social change, to maintain that technology is neutral, to make the assumption that technology is always a friend to culture is, at this late hour, stupidly plain and simple."

What sort of world is reflected in PowerPoint? A world stripped down to briefly summarized essences, a world snipped clean of the annoying underbrush of ambiguity and complication. But is that the world in which we want to live? And are the values prized by businesses--succinctness, directness, manipulation of symbols--also the values we want running our schools and nurturing our children?
On the other hand, don't computers help everyone to work smarter and faster, and aren't students immeasurably enriched by an easy familiarity with technologies such as PowerPoint?

What do you think?--assuming that you still can, that is, after prolonged exposure to PowerPoint.