In the middle of the 19th century blackboards were all the rage. According to Pennsylvania State University engineering communication professor Michael Alley, it was common for universities and research institutions to proudly advertise that they had the only slate writing board in a 100-mile radius. Scientific lectures became more engaging than they’d ever been.

More than 150 years later, there’s still room for improvement. “People are not anywhere close to tapping the potential that a PowerPoint presentation offers,” Alley says. “We have a tool that can do an incredible amount, and people just waste it.” Who hasn’t been lulled into a somnolent state by some well-intentioned scientist presenting his research to a captive audience by reading a seemingly endless stream of bullet points?

But it’s not too late for the scientific community to start using the software to greatly enhance knowledge transfer, says documentarian Ron Galloway, who recently produced and directed, Rethinking PowerPoint, a film on building better presentations. “The old ugly hateful PowerPoint slides are sort of going by the wayside,” he says.
TIPS ON MAKING PRESENTATIONS

Unplug, think, and write
According to Galloway, using PowerPoint to make a great presentation starts with powering down the laptops and writing out an outline on index cards or a legal pad. “People have to shut off their computer and go away as they’re writing their PowerPoint presentation,” he says.

Establish your assertion
Alley says that he starts planning each slide by writing down a single sentence stating the idea he wants the audience to take away. “You have defined what it is you need to support that statement,” he says. “That’s where it starts.”

Assemble the visual evidence
Let the assertion sentence for each slide guide your decision as to which visuals should accompany it. Use “explanatory images”—not decorative or descriptive images—to support each assertion, says Joanna Garner, assistant professor of psychology at Pennsylvania State University. When describing the context or methods of your research, photos and movies are ideal pieces of evidence; when presenting your results, elements like graphs, tables, or charts (appropriately highlighted to emphasize key points) will do the trick.

Challenge the defaults
When you actually open up PowerPoint, forget about the program’s suggested defaults. Start with a blank slide, say Alley and Galloway. That way, you can design free from the constraints of the program’s preset inclination towards bullet points and subheadings.