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PowerPoint and Labor in the Mediated Classroom

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Over the past decade, presentation slideware, such as Microsoft's PowerPoint and Apple's Keynote, has become a ubiquitous feature of academic life.[1] University students have come to expect lectures aided by slide shows available online to consult after class. Conference presentations and other scholarly addresses in many fields typically are accompanied by bullet points, summary phrases, quotations, and video or still images. In many ways, PowerPoint synthesizes the functions of earlier forms of visual aid, including chalkboards, slides, moving images (film or video), overhead projections, document cameras, and printed handouts. Slide shows are now central to the communication of knowledge within many intellectual communities, an important form of mediation in academic environments of the digital age. As part of our academic work routines, we find ourselves spending often substantial amounts of time and effort producing slides to show in the classroom and at conferences.

As media scholars and PowerPoint users, we have a reflexive role in aiming to understand the significance of classroom media. We are surprised at how little the new technological instruments of academic work, such as e-mail and learning management systems like Blackboard, have come under scrutiny by communication scholars as media of pedagogy. New social protocols have developed around the use of these new media technologies, as in the past, with photocopiers and voicemail. Appreciating the ways in which PowerPoint and academic labor have been joined together represents an opportunity to examine how digital technologies are used (or misused) in different social settings, and in particular, how they are transforming the work of higher education.

What follows, then, is an attempt to consider the default settings many of us employ while teaching with PowerPoint. On one hand, the turn to PowerPoint causes us some concern. We situate the use and encouragement to use it within an increasingly corporatized and technologically rationalized university. As a medium made for management consultants and sales meetings, PowerPoint (like prior generations of classroom technology, such as overhead and slide projectors) has origins outside of the academy. But overheads and slides are formally open. By contrast, PowerPoint's AutoContent Wizard and

[1] Henceforth, we use "PowerPoint" to refer to any digital slideware.

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templates might impose a simplifying logic on our thought processes, one which might be problematic for the communication of complex academic work. An important part of the encouragement to use and develop online materials comes as a response to perceptions about the learning demands of today's university students, and we explore that issue here as well.

On the other hand, as with any technology, we believe that there are good and bad uses of PowerPoint, depending on the skills and needs of the user, and that digital slides are often positive audiovisual aids in the communication of academic knowledge. We aim to consider differences between modes of technologically mediated academic communication without resorting to nostalgia for pre-digital days.

The rise of PowerPoint represents an occasion to reflect upon recent transformations in academic labor. After considering the rationales for using PowerPoint in higher education and some of the software's most common criticisms, we will offer several suggestions for how to think of PowerPoint within the wider context of contemporary academic work: as publishing, as overtime work, as a cognitive schema, as craft, and as an opt-out feature.

Institutionalizing PowerPoint

Now that PowerPoint use is a norm in academic presentations, we ought to ask, what problems with academic presentations did it promise to improve? What need are we satisfying when we use PowerPoint to illustrate or organize a lecture?

A number of popular histories of PowerPoint have emerged. From Ian Parker's 2001 article in *The New Yorker*, as well as from Franck Frommer's 2011 book *La Pensée Powerpoint*, we know how the software took off during the 1990s as a Microsoft Office application. Slideware was bundled with word processing, e-mail, and spreadsheet applications, and as many office computer systems were outfitted with Microsoft software, PowerPoint became easy to access and relatively easy to use. As Frommer points out, the period of time which saw the expansion of PowerPoint also saw the transformation of organizational cultures, away from top-down hierarchical organizational systems to horizontal systems organized around project management that required greater team-based work and numerous project meetings. The expansion of the consulting profession also encouraged the development of thinking of work as a series of projects. PowerPoint was widely adopted as a tool for communicating project results to team members or upper management.

In this context, the role of PowerPoint is to facilitate pitching business ideas in public or semi-public presentations. Speaking in public can be a difficult skill to acquire, and it inspires much fear. PowerPoint offers to alleviate this by providing templates for structuring presentations according to bullet-points, simple formats guiding the composition of text within slides, and pre-made graphics or icons to add visual appeal, as well as by seeming to take some of the attention and focus away from the apprehensive speaker, who might feel more comfortable presenting the information with a visual outline on which to rely. Academics facing large classrooms full of students for the first time might be comforted by the sense that PowerPoint is a reliable aid in composing and presenting lessons.

PowerPoint slides illustrate various kinds of presentations. In academic settings, one especially central use of PowerPoint is for a lecture. As Norm Friesen (2011) observes, the lecture has historically incorporated new technologies into its forms of address, making it a "mediatic" event. With the rise of the printing press, there was less need for the lecturer to walk students through every word of a text so that it might be retained in memory. Our latest innovations—digital slideware, and before it, overhead slides and mechanically copied handouts—testify to the value of the lecture as an effective and flexible form of pedagogy, one which bridges oral and other modes of communication.

Education researchers might decry the endurance of lecturing in university teaching as outmoded one-way communication focused on the teacher rather than the student. Despite widespread suspicion of the transmission model of pedagogy, however, presentation software can only have become such a force because of the abiding vitality of the lecture. *An Inconvenient Truth* (2006), a documentary film adapted from a keynote-assisted talk, had a successful theatrical run, won an Academy Award, and brought wide attention to environmental activism. And new media are not only useful as aids to presentations; digital technologies have also prompted a proliferation of lectures freely circulating in public. The famous "Last Lecture" of Randy Pausch was viewed millions of times on YouTube. Undergraduate lectures by distinguished university faculty in many disciplines circulate online, both publicizing scholars and colleges, and serving as free public education. The wild popularity of TED talks has encouraged innovative and brief presentations, often making use of computer-generated aids. Best lecturer competitions, like one offered by TVOntario in Canada, have also drawn critical attention to lecturing, along with scrutiny of the qualities that make for an effective presentation of ideas.

While we applaud the lecture's current state of good health, we also wonder about its digital enhancements. Friesen's argument draws welcome attention to the history of academic communication, with its interplay of old and new technologies and practices, but he still says little about the social and cultural circumstances wherein the use of digital lecture aids has become a default setting in a range of academic activities. A cluster of factors provides a context in which presentation software like PowerPoint has become such a fixture of academic life.

The first has to do with a particular perception of the audience. Academics have largely accepted the commonplace notion that students are easily distracted, their fickle attention regarded as a challenge to capture and retain. Such beliefs are invariably connected with ideas about living amidst perpetual connection to electronic media, such as the mobile devices and network access omnipresent on university campuses. These two characterizations—one social, the other technological—are then translated into broader characterizations of "engagement." Presentation software is one item among a suite of new media ranging from classroom clickers to class Web pages, which, along with administrative measures such as student assistance offices, writing centers, and online discussion fora, are all intended to produce student engagement. We can also see the installation of video projectors and classroom computers as a means of addressing this need, as well as an effort to keep up with technology. We ought to be cautious about adopting PowerPoint as a technological fix to address potentially dubious problems, or those that deleted here; hit back here, could better be solved by other means of improving student-teacher interaction.

Another factor has to do with the standardization of platforms. The development of course management software within virtual learning environments is part of a digitization of educational technology. This is a product of calls for the modernization of universities. The creation of such software at universities was a major part of this effort, aimed to provide convenience for students and to allow learning to take place outside of the lecture hall (Olsen, 2001). One selling point was to encourage students to use backchannels to communicate with other classmates and to engage with the instructor directly regarding questions or concerns that may have not been covered during the lecture time or during office hours. At the same time as decentering the lecture as the primary site of pedagogical interaction, however, the availability of slides in course management sites reinforces the centrality of the lecture as a site of learning. Unfortunately, this might come at the expense of giving students the impression that PowerPoint slides posted online constitute an alternative to classroom experiences.

Many universities now have departments to provide teacher training comprised mainly of professionals with expertise in educational technology, psychology, and educational theory. What was once largely an unscientific, individualistic, and tradition-bound process—one learned to lecture by some combination of imitating the lectures of one's teachers and trial and error—has become a problem of communication in which faculty are encouraged to apply rationalized technological advances in the interest of producing engagement and interest among students. The rise of student evaluations, both as a means of feedback and as a factor in hiring, tenure, and promotion, tends to impinge on a sense of the lecture as a fluid and dynamic form, making the reliance on PowerPoint as the primary means of academic communication a largely conservative measure to save us from the dissatisfaction of our students.

These considerations should prompt us to think about the relationship between the tools available to academics to do their work, and their effects on the way that work is undertaken. We have considerable knowledge about the ways in which new media technologies are being used and how they are affecting work practices in other fields. Consider the work on media organizations in the age of convergence culture: For instance, Mark Deuze writes that media producers must now work in a world where the boundaries between producers and consumers is blurred, and that "this convergence can be seen as driven by an industry desperate for strong consumer relationships, technologies that are increasingly cheap and easy to use, and a media culture that privileges an active audience" (Deuze, 2009, p. 470). Can similar characterizations not be made of academic institutions? Given the digital mediation of the classroom, might we begin to consider academic settings in Deuze's terms? Can we do so without falling back on the questionable accounts of PowerPoint's cultural effects that have dominated considerations of slideware in spheres outside of academia, such as government agencies, the military, and corporate offices?

Blaming the Medium-as-Message

PowerPoint has developed a double-edged identity in the popular imagination as a necessary, but in some ways, regrettable, convention of public communication. Academic uses lag behind (and in some ways follow) corporate practice, but in any setting, one finds a contradiction between the expectation of PowerPoint usage and the common complaint that it stultifies thinking, encapsulated in the phrase "Death by PowerPoint." News reports popularize its negative effects on the military, among other institutions

(Bumiller, 2010). Colin Powell's 2003 address to the United Nations Security Council making a case for war against Iraq is now considered a catastrophic failure of communication because of its poor use of visual evidence in a PowerPoint slide show (Finn, 2009). An investigation into causes of the Space Shuttle *Columbia's* explosion blamed PowerPoint slides employed by workers at NASA (Tufte, 2003). Following Parker's *New Yorker* essay, many PowerPoint users and audiences became familiar with a parody of a presentation in which Abraham Lincoln gives "The Gettysburg Address" as a series of simplified, bullet-pointed slides, with a preposterous bar graph illustrating the passage of 87 years under the title "Organizational Overview." One common source for negative thoughts on the slide software is Edward Tufte, a guru of visual data presentation whose pamphlet, *The Cognitive Style of PowerPoint* (2003), is among the most widely admired and cited anti-slideware writings. Tufte criticizes the necessity in PowerPoint of reducing quantities of statistical evidence to fit slide size and format, as well as the simplification and standardization that can be brought on by reliance on list items rather than sentences. He laments the wider effects of PowerPoint usage on the intellect of users and audiences, identifying a "dilution of thought" by the corporate "pitch culture" of sequential phrases; meager evidence; and the distracting templates, clip art, and transitions he derides as "Phluff."

Thus, one common complaint is that PowerPoint inculcates undesirable cognitive habits. It jettisons coherent sentences and substitutes slogans and phrases for well-formed thoughts. It offers up ambiguous fragments cascading in hierarchized bullet points, rather than developing a discursive flow as explanatory narrative or argument. It forces thought into discrete units, and it organizes these in ruthless sequence. The biggest problem, argues Jens E. Kjeldsen (2006, p. 6), is the organization of points into bulleted lists, the software's most basic textual structure. Tufte calls bullet points "faux-analytical"—evidence of a sham, an illusion of ordered and persuasive thought behind which, unacknowledged, lies a deep failure of expression and understanding. Parker argues that PowerPoint "edits ideas." It imposes not only a system of organization, but a way of thinking and a world view: "a summarizing, staccato frame of mind." Such criticisms point to a de-personalization of communication. No longer thinking for ourselves, PowerPoint re-wires us to think according to its bureaucratic framework. Parker again:

> PowerPoint empowers the provider of simple content . . . but it risks squeezing out the provider of process—that is to say, the rhetorician, the storyteller, the poet, the person whose thoughts cannot be arranged in the shape of an AutoContent slide. (ibid., p. 87)

A number of distinct issues are often confused and conflated in such criticism of PowerPoint. The design constraints of slides in general, the inclusion of templates and an Auto-Content Wizard to encourage certain uses, the social conventions of speaking with slides, and the consequences of a presentation culture formed around PowerPoint are all distinct, though related, phenomena. Critics imply that the technology as such is the cause of its uses, and that a cognitive style is imposed on users little empowered to resist its influence. Like Orwell in "Politics and the English Language" (1946), criticism of PowerPoint assumes that habits of communication impose an order on thinking, and that poor habits of communication are not only products but causes of intellectual poverty. Similarly, In the tradition of "medium theorists" such as McLuhan (1964) and Postman (1985), Tufte, Parker, and others assume that the prevalence of a medium in a given culture—in this instance, the cultures in which PowerPoint is a favored mode of communication, especially for public presentations—determines that culture's ways of

thinking. If PowerPoint-as-medium is the message of contemporary institutions such as governments, corporations, and schools, then the prospects for an intellectually robust society could be dire. Shaped by ruthlessly sequential thinking in pre-sentence fragments arrayed as bullet-point lists supported by meager evidence, a culture of PowerPoint cannot be intellectually very healthy.

Uses of any medium vary by context, purpose, and user. Academic lectures and conference presentations can employ PowerPoint slides in multiple ways, following the precedent of earlier forms of visual aid. Speakers in academic settings may use PowerPoint following the templates provided in the software, and may follow the various common "rules" (e.g., the "7x7 rule," prescribing a maximum of points and words per slide). Typical academic PowerPoint presentations may not differ much from corporate or government ones in their basic format, though many academics shy away from the flash and Phluff that Tufte derides. But academics may also ignore, subvert, and defy standard practices, resisting dominant uses. "The solution," writes Alexander Maxwell in a persuasive 2007 essay on using PowerPoint in teaching undergraduate-level history, "is simply to impose a new style on PowerPoint, and ignore the program's annoyingly counterproductive attempts to 'help' its users format slides." He wants teachers to "bend PowerPoint to their will" (ibid., p. 40).

Without accepting the deterministic and panicked thinking of PowerPoint pessimists, we might still want to explore how this tool can be used well, and how its less salutary uses might be avoided. As critical media scholars, we are skeptical of claims that the technology itself produces inevitable, powerful effects. As users and spectators of numerous slide-assisted presentations, we are confident that PowerPoint can be an effective medium of scholarly communication and pedagogy. The question remains, though, of what we should do with it, and to what ends.

Scholarly Media Literacy: Five Ways of Looking at PowerPoint

If it is to be a medium of our pedagogy, we propose that scholars and university teachers contemplate the value of PowerPoint and consider its uses critically. This essay has been an effort to denaturalize—to highlight functions and question effects. In particular, we are eager to promote a kind of scholarly literacy with PowerPoint, rather than a blind acceptance of its necessity.

Our labor should benefit from critical reflection on the tools of our endeavors. Thus, we conclude with a number of ways of regarding PowerPoint that may not be the on the minds of the average user:

1. *As publishing*. Teaching and research are separate spheres of work, and we tend to think of pedagogy and publishing as distinct activities. But the production of PowerPoint slides is a form of content creation, and posting these documents online is a form of publication. Thanks not only to PowerPoint, but also to course management software, blogs, and other digital platforms, teaching now includes publishing. The traditional ideal of a university lecture as a site for transmission of knowledge from teacher to class is being transformed by a different kind of transaction, wherein the teacher uses the class space to gloss the PowerPoint slides, which in turn are published online and reviewed by students in preparation for exams and assignments. We create PowerPoint slides not only to illustrate a presentation, but to serve as a fixed documentation of class work. The PowerPoint slide serves

multiple functions: Not only must it be an effective visual aid, but it also must work as one among a suite of course texts. When we make slides, we must create them as documents, not just as images to project. This raises questions as to whether these slides are their creators' intellectual property, or whether they belong to employers. Thinking of PowerPoint as publishing, then, also connects issues of academic labor to IP politics.

2. *As overtime work*. There is some value added in the transformation of visual aids into published texts, but there are also costs in time and labor, and we might lack the appropriate skills and resources to accomplish the publishing work of teaching adequately. We might want to consider the balance of costs and benefits of this labor, this production of media as a support for our classroom work. Teaching a large lecture course, especially for the first time, is a time-consuming endeavor, and generating well-made slide decks for a semester of twice-weekly classes is a substantial undertaking. If such courses were being taught effectively for decades before PowerPoint, we might wonder whether the added labor of slide production pays significantly in pedagogical benefits. A precise calculus of costs and benefits may be impossible, but every teacher might at least consider these factors in the context of her own experience and needs, and the culture of university teaching might make considerations of teaching labor more prominent. We might wonder whose interests are served by the assumption that we will make PowerPoint slides to screen and publish for our classes. Alternately, if we leave this production to the for-profit publishers of courseware bundled with outrageously priced textbooks, we should be wary of outsourcing our labor at added cost to students, and with questionable intellectual benefits.

3. *As a cognitive schema*. It might not make us stupid, but PowerPoint, like any medium, undoubtedly constrains the production of content made for it. To teach with PowerPoint does not require the use of bullet points and Phluff, but it does require the organization of points into a succession of slides. In our own teaching, we have observed a reliance on PowerPoint habits of thought in our lecture preparations. When—as an experiment in nostalgia—one of us prepared a lecture without PowerPoint after many semesters of using it, it was a struggle to organize points and topics outside of the sequential slide format. A lecture can take many forms, but the use of text-heavy slides most typical of PowerPoint usage in academia encourages certain conventions of presentation and organization. The slideshow has engendered a cognitive schema, a way of thinking about teaching. This may be a flexible and adaptable schema, but it is a set of procedures and expectations about lecture form that we adopt and develop as we work with PowerPoint. A reflexive engagement with such pedagogical schemata can only benefit our teaching practice. A critical practice of teaching with media ought to question the reliance on a schema so much a product not of academe, but of bureaucratic and managerial culture.

4. *As craft.* Academics, especially in the humanities and social sciences, consider writing as a practice requiring substantial learning and work. Writing is a process of composition, review, revision, and rewriting, a skill to work on throughout our lives. We might see the production of visual materials, likewise, as a practice requiring constant work. Slide production is itself a kind of writing, but it is also a form of visual design, and most academic users have little experience or training in producing visuals. We know little about typography, layout, color, working with images, etc. These craft skills

are essential to making good slides. PowerPoint offers templates and layouts, but we risk failure as communicators when we leave the presentation of our teaching materials to Microsoft. Rather than a prefabricated form to fill up with our lecture content, we might see PowerPoint as a tool requiring the development of practical knowledge for effective use. Whether it pays to invest our time and effort in developing a scholarly craft of visual design is an open question.

5. *As an opt-out feature*. Do we need slideware? In many ways, it helps us do things teachers have done for many years, but more efficiently and in an easily shared format: spell unfamiliar words, highlight key points, illustrate diagrams and visualize data, show images (still or moving). But despite our perceptions of student expectations, there is no necessity of teaching with PowerPoint, and one effective use might be to avoid PowerPoint when the content of instruction is not suited to presentation in slides, or when our labor is better saved for other tasks. PowerPoint should be seen as a situational, rather than an essential, component of academic presentation practice. We need to know how to use it well; we should also be able to disable the default setting, and to know when this is the best choice.

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References

Bumiller, E. (2010, April 26). We have met the enemy and he is PowerPoint. *The New York Times*, p. A1.

Deuze, M. (2009). Media industries, work, and life. *European Journal of Communication 24*(4), 467–480.

Finn, J. (2010). Powell's point: Denial and deception at the UN. *Journal of Visual Communication, 9*(1), 25–49.

Friesen, N. (2001). The lecture as transmedial pedagogical form: A historical analysis. *Educational Researcher*, *40*(3), 95–102.

Frommer, F. (2011). Le pensée Powerpoint. Paris: La Decouverte.

Kjeldsen, J. E. (2006). The rhetoric of PowerPoint. *Seminar.net International Journal of Media, Technology and Lifelong Learning, 2*(1).

McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: McGraw-Hill.

Maxwell, A. (2007). Ban the bullet point! Content-based PowerPoint for historians. *The History Teacher, 41*(1), 39–54.

Olsen, F. (2001, January 17). Education must 'transform' itself or become irrelevant, Educase official says. *Chronicle of Higher Education.*

Orwell, G. (1946). Politics and the English language. *Horizon*, *13*(76), 252–265.

Parker, I. (2001, May 28). Absolute PowerPoint: Can software edit our thoughts? *The New Yorker*, pp. 76–87. Available at http://www.newyorker.com/archive/2001/05/28/010528fa_fact_parker?currentPage=all

Postman, N. (1985). *Amusing ourselves to death: Public discourse in the age of show business*. New York: Penguin.

Tufte, E. (2003). *The cognitive style of PowerPoint: Pitching out corrupts within*. Cheshire, CT: Graphics Press.