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How PowerPoint Stifles Understanding, Creativity, and Innovation Within Your Organization

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This article addresses a most unexciting military topic- the form and function of routine planning and briefing methodology within our modern digital-age military organizations. Although the topic of briefings is hardly groundbreaking, it deals with what has become an engrossing affair for nearly all military organizations: PowerPoint. The purpose of this article is not to bash any particular trademarked digital commodity, but to instead explore our unhealthy dependence upon it as a military, and critically think about whether we can improve our organizational knowledge production more effectively by considering information sharing alternatives. None of the problems in this article are any fault of PowerPoint software; rather it is our own military institutionalism that requires transformation. Microsoft PowerPoint is an excellent organizational program that can display graphics and *support* conveying useful information across an organization rapidly in a digital age. There are many examples where PowerPoint aids an organization and leads to increased productivity when employed in a supplementary role. Yet our military has become addicted to the benefits of PowerPoint, while potentially blinded by the many negative impacts on organizational learning, creativity, and critical thinking. Design theory provides a critical and necessary examination on why military organizations are misusing PowerPoint, and how leaders might develop information alternatives that improve organizational readiness.

PowerPoint provides a useful vehicle for sharing and developing concepts among military professionals in a variety of venues. Unfortunately, the U.S. military tends to lose track of the supportive context for PowerPoint and instead shackles organizations to institutional processes and rigid 'group-think.' We tend to burden our military professionals with an exhausting and high-maintenance requirement to churn out repetitive and non-explanatory slide decks for nearly every conceivable information requirement. Rarely do we conduct a meeting without the ever-present bright projection of PowerPoint upon a screen. At times, correcting the font size seems to trump questioning the content of the slide itself, as uniformity and details upset the focus of our modern military institution. How did we get to this point, and can we reflect on what we are doing to our organizational knowledge production, language, and shared values so that we can adapt? [1] More importantly, do we even realize why PowerPoint tends to steer us towards a less productive way of thinking when our military often faces some of the most complex and dynamic problems?

First: PowerPoint Steers Towards Descriptive, not Explanatory Thinking

A key way to distinguish between description and explanation deals with the concepts of WHAT versus WHY. [2] When you attend a briefing and the majority of slides and material attempt to reduce, measure, categorize, or describe something, we are often merely admiring the problem. [3] One might describe

something in an endless loop of perpetual reduction, measurement, and further analysis while missing out on the explanation entirely. A useful metaphor involves the parts of a bicycle; the descriptive-oriented organization briefs an exhaustive presentation on each individual part, but never gets to assembling the bicycle or considering where to ride it. Explanatory thinking (the assembled bicycle) often requires conceptual, abstract, and holistic appreciation of a complex system; explanatory thinking produces novel approaches and improvisation to the organization by changing our perspective or discovering new knowledge that has utility. This is often in opposition to preformatted slide decks and queries that categorize and isolate information into even smaller, fractured packets. Yet military organizations often employ PowerPoint presentations to standardize nearly all briefings and meetings into uniform and repetitive procedures that codify organizational perspective into “group think.” We follow the slides, and conform to the slide requirements. Next slide, please.

Instead of thinking about why something is occurring, we are usually required to answer precise information that satisfies a descriptive (WHAT-centric) procedure instead of a critical line of inquiry. Many military professionals refer to this as “feeding the beast” in PowerPoint-centric organizations, where we openly acknowledge that our own hierarchy often demands volumes of often meaningless or irrelevant information for illusionary pretexts. If descriptive thinking blinds your organization to critical and creative thinking, then PowerPoint is the drug of choice for continuing the reductionist and highly *tacticized* mentality across an organization that fears uncertainty.^[4] Reductionism is the process of applying categories and a scientific approach to break complex problems down into “manageable” chunks.

Weaning your organization off an unhealthy institutional behavior requires strong intervention by the senior leader; with careful and methodical treatments, they can implement to transform the organization. Going from a user of bad information methodologies to a streamlined and adaptive team that critically and creatively reflects on FORM and FUNCTION takes time and patience. Yet old habits die hard.

Second: PowerPoint Murdered the Art of Briefing

Briefing an idea or concept to an audience is a core process within the greater phenomena of organizational knowledge production. We gain information, and then convey it to the group, which is supposed to lead to organizational utility through greater understanding and productive action. Our human condition elevates formal briefing into something of an art form, where confidence, articulation, and the ability to improvise and adapt lay a solid foundation for most professional briefing venues. Yet in the modern digital age, has PowerPoint taken some of these critical components away from military organizations and exchanged them with superficial and somewhat toxic effects?

Briefing aids have existed in some form since the dawn of human discourse, yet it seems the arrival of the digital age exchanged the roles between the briefer and the briefing aid. Meetings feature extremely dense slides, paired with presenters that often read similarly dense material to the audience while the slide is projected. Audiences are torn between where to direct their attention. Often, briefers rely so much on densely packing information onto slides that they often lose their own management of the information, and instead rely on the slide to “brief” the audience. Military leaders might recognize this paradigm shift by simply asking a briefer to turn off the presentation on the very first slide. If the presenter is unable to articulate their thoughts or convey much of anything, you might determine that the slideshow is the actual briefer, while the human has become the willing presentation aid. Presenters that sprinkle key phrases such as ‘if I could direct your attention to this slide,’ or ‘what the slide is telling us’ are verbalizing their subservient role where they are dependent upon the slideshow, instead of the slideshow dependent upon their ability to brief the ideas and concepts. Have you ever been in a briefing where the presenter turned the slideshow off and directed all attention to his own words? Perhaps the greatest tragedy occurs when military professionals actually instruct their audience to read the slide while they stand silently and

patiently; the puppet master tangled in his own strings.

Third: Quantity Is Now Greater than Quality

Most professionals in our modern military institution have served in positions where they must produce a mind-numbing array of PowerPoint slides. To apply critical thinking to this resource consuming habit, WHY does the military prefer to do this sort of approach to sharing and expanding organizational knowledge? Do we learn more effectively by discussing issues with critical and creative perspectives or does the passive-learning model that PowerPoint espouses help us learn faster? Can we address a challenging topic and generate useful outputs using a single slide (or none at all) instead of the standard twenty to forty count slide decks? Could a briefing be effectively conducted entirely with a series of written reports or 'white papers' and no slides at all? Are we so visually conditioned that we associate the modern meaning of 'meeting' with PowerPoint now?

As an organization, do we correlate deeper understanding with fewer slides that explain, or do we actually associate greater value to larger, more complicated slide decks filled with charts, data, statistics, and 'hide-slides' with even more exhausting description?[5] Should 'more' really be better, or can 'less' bring greater organizational value to group knowledge production? Is quality over quantity through critical and creative thinking is a better alternative instead of never-ending slideshows of WHAT-centric description on things our organization reaches cognitive exhaustion over?

Some topics require a great deal of information. Some meetings cover a wide range of topics. Therefore, some meeting venues may require PowerPoint presentations with many slides. Provided that the quality of the presentation matches the quantity, the briefer and the organization should profit from these interactions. However, if a meeting features an ever-growing deck of slide that gets "good idea" assistance to perpetually increase the quantity without improving the quality, the organization may suffer. If an organization believes that the next meeting must feature the same slides as the last meeting for merely the sake of uniformity and repetition, that organization is choosing to 'group-think' and fostering a culture that extinguishes critical thinking, improvisation, and exploration. Consider all of the PowerPoint presentations you encounter within your organization's weekly battle rhythm; do they accomplish the core objectives of the meeting for your unit?

Additionally, a recent trend of cramming four slides onto one "quad chart" slide is another work-around that compresses a larger slide show into fewer yet more cluttered slides and supports the 'quantity over quality' tension. This recent staff technique defeats the purpose of a quadrant chart that uses two separate tensions in an overlapping geometric structure to demonstrate patterns and explore complex relationships. [6] 'Quad charts' are not interrelated if you apply one simple test. By removing one quadrant of a true 'quad chart', you will render the entire slide incomplete. Each quadrant in a quad chart should systemically relate to the other quadrants in terms of context. If you are only removing one component while the three remaining quadrants maintain their coherence, your staff has merely shoved ten pounds of dirt into a five pound bag for you, by condensing four slides into one. This reduces total slide numbers, but does little to improve organizational learning.

Fourth: "Tabling" an Issue to Get Through the Slide Show Misses the Point!

When your military organization stumbles upon an engaging dialogue that generates critical and creative thinking, the last thing we should do is suppress the discourse. Innovation is driven by experimentation and the curiosity to challenge established knowledge to seek out novel and approaches- that are more productive yet the very composition of PowerPoint prioritizes a slide agenda over any productive thought that deviates from the set timeline and sequence of programmed slides.[7] Time drives slide progression, and any deviation represents a threat to getting to the final slide.

We are instructed what to read, what to think, and how to link our previous thoughts to the ones associated with the next slide. Anyone that drives the conversation too far away from the planned slide topic or delay the slide transition for too long threatens the completion of the brief. Often, the conflict between your organization learning and adhering to the sequential group digestion of prepared information encourages silence and obedience. Instead of dissent through critical inquiry, reflection, and dialogue, we expect audiences to remain in passive reception as the information flows from slide to slide and unquestionably into organizational knowledge. Perhaps this is why most briefings involving PowerPoint are unidirectional; the briefer provides prepared information to the willing audience. There is little opportunity for creative thought or innovation when the only expectation for the audience is for them to show up. It becomes even more suffocating for free discourse when these briefings are conducted over video-audio systems (video-telephone conference) and audiences are reduced to tiny shapes on a monitor. Silence becomes the default setting in these highly digital formats, where the human element of body language and interaction becomes rather two-dimensional with an awkward time delay. Technology, heralded as a cure to previous information problems, seems to have burdened us with new problems that are self-inflicted.

Fifth: Planning ‘PowerPoint Deep’ Creates a Very Shallow Pool to Swim

A popular buzzword in military organizations today is the notion of a ‘deep dive’ session which revolves around an extensive slide show and goes into significant detail on a particular mission topic. ‘Deep’ implies extensive and thorough understanding with explanation, yet most ‘deep dives’ appear to stop at description.^[8] Remember, description (WHAT-centric) leads to further reductionism and even greater illusion of control over a complex and dynamic system.^[9] In other words, our institutions may provide volumes of detailed information on various weather phenomena, but we are unable to explain why it is going to rain tomorrow.

‘Deep dive’ sessions have a valid intent; they seek to develop an organization’s collective knowledge base through deep understanding, rich discussion, and often ending with some emergent decision points that the senior leader can make an informed decision with. Done properly, ‘deep dive’ events nourish an organization, and help generate stronger shared knowledge with the ability for more individuals to rapidly and accurately access it. However, the depth that a ‘deep dive’ reaches has more to do with the explanatory content and emergent discourse, and less to do with how many over-detailed descriptive slides you can cram into an hour. When the number of slides is equal to or exceeds the minutes in an hour-long briefing, the depth of explanation any briefer can achieve is likely inadequate. Any valuable discourse is quickly suppressed by the overwhelming need to get through the brief.^[10] Ultimately, if a ‘deep dive’ presentation ends with a decision point for the senior leadership, does it not create its own vacuum where dissent, critical inquiry, and emergent thought are paralyzed? PowerPoint structured briefings like ‘deep dives’ generally force the audience into a passive state, ‘zombifying’ the group to the slide tempo and required timeline, and finish with decision space reserved not for organizational inquiry by dissenting thinkers, but for senior leaders within a hierarchical structure to approve any recommendations.^[11] How often have PowerPoint presentations like these ‘deep dives’ ended with a senior leader glancing around the room and exclaiming, “Does anyone have any comments or concerns now?” The form and function of PowerPoint has shifted any discussion to the end of the brief, because the linear sequencing of slides objects to group discourse during the briefing. In especially dense PowerPoint decks, it becomes even harder for the audience to refer back to earlier slides; objections and dissenting thought are overwhelmed by sheer volume and lock step sequences. Our passive meeting structures further inhibit critical and creative discourse. While PowerPoint is not the overarching villain in our institutionalisms that damage how we communicate today, it certainly is a misused tool with numerous toxic effects. There are ways to break the cycle, if your organization becomes self-aware.

Recommendations: Restore the Briefer as a Critical Thinker

Many military organizations use 'read-ahead' packets that provide an advanced copy of the PowerPoint briefing slides in advance of the briefing. In theory, this implies an alternate route for information sharing that, when combined with a briefing, could function in tandem. In practice, this requires two commitments that are rarely met. First, all attendees must endeavor to actually read the 'read-ahead' packet. This prepares an audience to enter a briefing cognizant of the topics, context, and prepared to offer relevant discourse to drive emergent thought. Secondly, the briefer must resist using any slides in the 'read-ahead' except for ancillary or expository reasons during the brief. Simply following the exact slide format as the 'read-ahead' drags those that invested time to read it earlier back through redundant information, and reward those that came to the meeting unprepared. This positive feedback loop reinforces non-participation for the organization, and creates a forcing function where every briefer feels compelled to use all of their slides and waste valuable group discussion time.

If it is difficult to critically assess how dependent one's military organization is with PowerPoint, there are many simple exercises that leaders can employ to shatter organizational stagnation and identify critical tensions preventing creative thinking and improvisation. Consider the following options with PowerPoint:

1. Take a briefing that features too many slides, and instruct the presenters to reduce it down to three slides only; yet maintain the same length of the meeting. The discussion should bring forward those critical issues that require the most attention.
1. At the start of a meeting, ask the briefer to turn off the presentation, and ask all participants to put away their 'read-ahead' packets. Those that are able to discuss are likely the only prepared members with some understanding of the issue(s). Leaders may notice emergent tensions that help illuminate deeper problems that slides are ill-equipped to uncover. This is less about "stump the chump" and more about appreciating deeper phenomenon within your organization.
1. Seek other briefing aids entirely, and omit PowerPoint as an option for some topics or meetings. You may be surprised with what alternatives your organization develops to fill a perceived PowerPoint gap. Systems like 'Command Post of the Future' (CPOF) are digital alternatives that work collaboratively in real time; Outlook Calendars and SharePoint Portals also have many of these features. Microsoft Visio has many advantages over PowerPoint but is seldom used by military professionals. Challenge your staff in an exercise to conduct MDMP without using PowerPoint at all; there are many digital and analog alternatives.
1. PowerPoint emerged from the same origins that white boards, butcher block, and chalk boards satisfied, yet PowerPoint locks away control to only the slide developer. How can your organization use white boards and discourse to replace PowerPoint? Do white boards break down barriers to improvisation that digital slide-makers currently hold? When everyone "owns" the product, does that change the organizing principle of being a "slide master"?
1. Instruct the briefer not to refer to, or even look towards the slides projected. Instead, force the briefer to communicate directly with the audience, and only reference a slide behind them as needed to drive a point. Forbid 'next slide' and such PowerPoint lexicon from the meeting. This process breaks our organization out of language that limits how we appreciate problems and decision making.

1. Reduce the passive audience factor by not only removing PowerPoint, but removing chairs and the conference table. We become programmed to behave in certain ways because we are conditioned to sit and be silent while a briefer spoon-feeds us information while the same information is projected. Why? What happens when everyone is no longer seated for a briefing?
1. For advanced techniques, have the briefer develop two sets of slides. The preliminary are for the read-ahead packet, with the advanced concepts contained only on the presented slides, of which there are no paper copies. This steers your organization to use 'read-ahead' packets as they are designed, but encourages emergent thinking and improvisation with new information presented that builds upon earlier work. It also rewards those willing to prepare for a meeting.
1. Challenge accepted sequences; break paradigms. Briefing the decision point at the beginning of a brief, with the "questions" slide as the second slide in the brief may cue the briefer and decision maker to where the majority of the time should be committed, and which select briefing aids should be presented for the remainder of the time. Break out of the passive learning mode.

Conclusions: How to Swim Upstream in the Information Superhighway and Live

It is easier to go with the flow. The recommendations here suggest us to buck with the trends and swim upstream instead of down. This takes more work, and can be dangerous when everyone else in the organization wants to ride the current. The default setting for nearly all PowerPoint abusive relationships is that "everyone else is doing it this way" or "higher headquarters expects these slides done in this format."^[12] These are not necessarily valid reasons, but they are effective at enforcing conformity and smothering creativity and innovation. Military leaders at all levels can challenge the tight grip that PowerPoint has by asking one simple yet penetrating question: *why* is this valuable to our organization's knowledge growth? Some briefings, reports, and procedures do seem to benefit from a standard PowerPoint slide deck and passive audience structure. Yet mimicry of success does not create further success. If anything, it generates a positive feedback loop of conformity, group-think, and the perpetual admiration of a problem without any breathing space for creativity, adaptation, or improvisation by your staff.

Time is a limited resource, and military staff personnel are valuable and often highly trained professionals. Why do we shackle our staffs to PowerPoint-centric processes that invest the majority of staff resources not into understanding and confronting a wicked problem, but into time-consuming slide formatting, repetitive behavior, and constrictive information chunking for passive audience dissemination? ^[13] Why do we believe that fifty slides say more than three? Why do we prefer to let slides brief us, instead of the briefer engaging the audience or decision maker with the slide playing back-up? Why do organizations reward those that show up to meetings unprepared, and punish those that read the 'read-ahead' packets?

New knowledge production within a military organization has to do with CONTENT and FORM. PowerPoint is just a preferred FORM that the military tends to indoctrinate into prescriptive and tedious sessions for over-describing problems that the military organization is unable to clearly understand or explain. Removing PowerPoint will not eliminate the fog and friction from your headquarters or staff, but it could unshackle them from draining organizational resources into unproductive briefing methodologies. Senior leaders in all organizations can shatter this digital and self-inflicted paradigm by reflecting

critically on whether that huge pile of PowerPoint slides and hour of their time in a meeting really helps the organization EXPLAIN or merely DESCRIBE the complex and dynamic challenges facing them. Explanation leads to innovation, productivity, and exploration, while description leads to our organization embracing the superficial over deeper considerations. Ultimately, PowerPoint is a tool in the military kitbag. In the unending pursuit of improving our institution's decision-making and knowledge production, our military requires a PowerPoint intervention to put the tool down and reflect on whether we really need to use it as much as we do. Some tools come with disadvantages that over time accumulate in patterns of bad behavior for organizations. Challenging our institutionalisms requires critical thinking so that we can transform into a more efficient and adaptive organization.

[1] For information on 'knowledge production' concepts, see: Martin Kilduff, Ajay Mehra, and Mary Dunn, *From Blue Sky Research to Problem Solving: A Philosophy of Science Theory of New Knowledge Production*, (Academy of Management Review, Vol. 36m No. 2, 2011).

[2] Valerie Ahl and T.F.H. Allen, *Hierarchy Theory: A Vision, Vocabulary, and Epistemology*, (New York: Columbia University Press, 1996) 18. "Meaning, and explaining the "why" of a phenomenon, come from the context. The lower-level mechanics, the "how" of the phenomenon, have nothing to say about "why."

[3] Nassim Nicholas Taleb, *The Black Swan*, (New York: Random House, 2007), 16. "Categorizing always produces reduction in true complexity." See also: Fritjof Capra, *The Web of Life*, (New York: Doubleday, 1996), 29. "In the analytic, or reductionist approach, the parts themselves cannot be analyzed any further, except by reducing them to still smaller parts."

[4] Shimon Naveh, Jim Schneider, Timothy Challans, *The Structure of Operational Revolution; A Prolegomena* (Booz, Allen, Hamilton, 2009) 88. According to Naveh, military organizations demonstrate repetitive *tacticization* where military institutions "are inclined to apply knowledge they have acquired from their tactical experiences to their operational functioning sphere. In such cases, they either reduce the operational inquiry of potential opposition into a mechanical discussion or completely reject the need for a distinct learning operation."

[5] Perhaps the most infamous PowerPoint slide of the modern warfare era: Elisabeth Bumiller, *We Have Met the Enemy and He is PowerPoint*, (The New York Times online; 26 April 2010; last accessed: 28 APR 2012; <http://www.nytimes.com/2010/04/27/world/27powerpoint.html>). This NYT article features the "spaghetti slide" where planners briefed General McChrystal and he remarked, "When we understand that slide, we'll have won the war."

[6] Ben Zweibelson, *Cartel Next: How Army Design Methodology Offers Holistic and Dissimilar Approaches to the Mexican Drug Problem* (Small Wars Journal, 30 June 2011); last accessed: 28 APR 2012. <http://smallwarsjournal.com/jrnl/art/cartel-next-how-army-design-methodology-offers-holistic-and-dissimilar-approaches-to-the-me> In previous articles such as this one, I used true 'quad charts' to illustrate dueling tensions. Removing one quadrant dismantles the entire slide, thus illustrating what a 'quad chart' is versus four separate mini-slides slammed into a large one.

[7] For information on improvisation and organizational memory, see: Christine Moorman, Anne S.

Miner, *Organizational Improvisation and Organizational Memory* (Academy of Management Review, 1998, Vol. 23, No. 4) 698-723.

[8] Gerald M. Weinberg, *Rethinking Systems Analysis and Design*, (Boston: Little, Brown and Company, 1982), 121. “Reduction is but one approach to understanding, one among many. As soon as we stop trying to examine one tiny portion of the world more closely and apply some close observation to science itself, we find that reductionism is an ideal *never* achieved in practice.”

[9] Shimon Naveh, Jim Schneider, Timothy Challans, *The Structure of Operational Revolution; A Prolegomena* (Booz, Allen, Hamilton, 2009). Military planners are “confined to the ‘shackles’ of inferiority determined by institutional paradigm, doctrine, and jargon...[they] are cognitively prevented, by the very convenience of institutional interiority...because the ‘shackles’ of ritual hold them in place.”

[10] Gary Jason, *Critical Thinking: Developing an Effective System Logic*, (San Diego State University: Wadsworth Thomson Learning, 2001) 337. “People tend to compartmentalize: they divide aspects of their lives into compartments and then make decisions about things in one compartment without taking into account the implications for things in another compartment.”

[11] On the dangers of critical thinkers, see: Michel Foucault, *Discourse and Truth: The Problematization of Parrhesia*, (originally covered in six lectures given by Michel Foucault at the University of California, Berkeley in October-November, 1983. Published online at: <http://foucault.info/documents/parrhesia/> (last accessed 23 April 2012).

[12] On group resistance to innovation, see: Mats Alvesson, Jorgen Sandberg, *Generating Research Questions Through Problematization*, (Academy of Management Review, Vol. 36, No. 2, 2011), 257. Alvesson and Sandberg identify ‘field assumptions’ and ‘root metaphors’ as theoretical concepts within an organization’s preferred manner of viewing the world that are “difficult to identify because “everyone” shares them, and, thus, they are rarely thematized in research texts.” See also: John Nagl, *Learning to Eat Soup with a Knife; Counterinsurgency Lessons From Malaya and Vietnam* (Chicago: The University of Chicago Press, 2002) 9. “Military organizations often demonstrate remarkable resistance to doctrinal change as a result of their organizational cultures. Organizational learning, when it does occur, tends to happen only in the wake of a particularly unpleasant or unproductive event.”

[13] The term ‘wicked problem’ is used interchangeably with ‘ill-structured problem.’ See: Jeff Conklin, *Wicked Problems and Social Complexity* (CogNexus Institute, 2008. <http://www.cognexus.org> (accessed 05 January 2011) for more on wicked problems.

About the Author



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Ben Zweibelson is a retired U.S. Army Infantry Officer with over 22 years combined service to include multiple combat tours in Iraq and Afghanistan. Ben is currently the Course Director of Design Programs at the Joint Special Operations University and is pursuing his doctorate in philosophy with the Australian National University in Canberra, Australia. He has recently lectured on advanced design theory at the USAF Air War College for their Grand Strategic Studies Program as well as at the Canadian Forces College for an October 2016 Design workshop. He has upcoming design articles in the Canadian Army Journal (Spring 17), the Journal of Military and Strategic Studies (Spring 17), as well as several other military academic journals. Ben resides in Tampa, Florida with his family and can be reached at [**benzweibelson@gmail.com**](mailto:benzweibelson@gmail.com).

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