COMMENTARY

Death by PowerPoint – the need for a 'fidget index'

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Abstract

PowerPoint is an application designed to help the speaker or lecturer assemble professional looking slides to be used in oral presentations. The result sadly is often an unending stream of slides with bullet lists, animations that obscure rather than clarify the point and cartoons that distract from rather than convey the message. This paper examines what the speaker can do to avoid 'death by PowerPoint'. The options of an alternative communication format or an alternative presentation tool are considered. For most speakers, however, the problem is not with PowerPoint but with how they make use of it. Three approaches to making presentations using PowerPoint are described which should yield rich rewards and a more attentive and appreciative audience.

In the past decade we have seen a paradigm shift in oral presentations at conferences and meetings. Gone are the 35 mm slides, the use of transparencies with an overhead projector and writing with chalk on a blackboard or markers on a whiteboard. There have been some notable exceptions, such as when Edward de Bono sat on a chair on stage at the AMEE conference in Edinburgh in 2004 and enthralled his audience with a talk illustrated by drawing on an overhead projector. This is unusual and at AMEE 2007 in Trondheim all of the 400 or so presentations were delivered using PowerPoint. It is estimated that, worldwide, there are now over 30 million PowerPoint presentations made each day.

We are told that PowerPoint is an application that will help the speaker or lecturer to assemble professional looking slides to be used in oral presentations and speakers and audiences now seem to want and expect PowerPoint presentations at medical meetings. The result sadly, however, is often an unending stream of slides with bullet lists, animations that obscure rather than clarify the point and cartoons that distract rather than convey the message. Too often PowerPoint presentation elevates format over content. Exley & Dennick (2004, p. 79) cautioned users of PowerPoint–'turning all visual aids into bulleted lists is a mistake and if you spend a whole day watching PowerPoint conference presentations it will strongly reaffirm the need to avoid death by bullet point'. In an article 'PowerPoint is Evil', published in Wired, Tufte (2003), a visual communications guru, invited readers to 'Imagine a widely used and expensive prescription drug that promised to make us beautiful but didn't. Instead the drug had frequent, serious side effects: It induced stupidity, turned everyone into bores, wasted time, and degraded the quality and credibility of communication. These side effects would rightly lead to a worldwide product recall'. He goes on to note, however, that despite these criticisms of PowerPoint, about 400 million copies are producing trillions of slides each year, convenient for the speaker but punishing, he believes, to both content and audience. Tufte (www.edwardtufte.com) argues that

PowerPoint corrupts the communication process by focusing on format rather than on content, sometimes with serious consequences. A fascinating example he uses is how a poorly presented PowerPoint slide hid key information which was, at least in part, responsible for the Columbia space shuttle disaster. The limitations of a slide sequence based on bullet-pointed lists is demonstrated by Peter Norvig in a spoof PowerPoint presentation of Abraham Lincoln's Gettysburg address. He shows how a stirring and inspiring presentation lost much of its impact by applying a formulaic over-application of PowerPoint (http://norvig.com/gettysburg).

Another commonly encountered problem with PowerPoint presentations arises from the fact that the basic principles of multimedia learning and instructional design (Mayer 2005) are frequently ignored. Contrary to what one may expect, slides should not be designed to stand alone or to be self explanatory. They should be closely integrated with the speaker's commentary rather than be used on their own to present an isolated message. The presenter's commentary used to explain a diagram on the screen is effective because information is presented in a different form. Lee & Bowers (1997) studied a group of 112 university students to determine how they learned best. Students hearing spoken text and looking at graphics learned significantly better than students looking at graphics alone or reading printed text while looking at the graphics. It is even more important to recognize that it is not effective simply to repeat the same words that are written on a text slide–a common mistake with PowerPoint presentations. Indeed this repetition may decrease rather than augment the listener's ability to understand what is being presented. The practice of circulating PowerPoint slides as handouts summarizing a presentation emphasises the overreliance on the visual element and should be discouraged. It is akin to circulating a video disc of a film with the visual but no audio channel recorded. The temptation then, as with PowerPoint presentations, is to add subtitles and text to the visuals to enhance their stand-alone value.

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So what can we do as PowerPoint presenters? What action can we take to avoid 'Death by PowerPoint?' On the next occasion we have to give a lecture or make a presentation, should we ignore PowerPoint altogether and leave it at home? Can we just leave out a visual component to our presentation and depend on our oratory? In some exceptional circumstances this may be the best response. In most cases however, it is not. Few presenters by their oratory alone have the skills necessary to command the attention of an audience over a period. There are also severe limits to the amount of information and messages that can be conveyed effectively to the audience using only the oral channel of communication in comparison to what can be achieved with a carefully integrated oral and visual presentation. Estimates vary from a factor of four to 400 as to the extent of this limitation but there is certainly a large gap.

Should we emulate de Bono and turn to an alternative communication format such as chalk board or the overhead projector? In one reported study by Thomas & Appala Raju (2007), students when asked to choose their preferred form of communication–chalk board or PowerPoint–preferred chalk board to communicate thoughts, concepts and explanations. In another study (Meo 2008), a lecture in physiology was given to three different groups of students, one delivered using PowerPoint, one using the chalk board and the third using both PowerPoint and chalk board. Students who attended the lecture where both PowerPoint and chalk board were used, obtained better scores in a multiple choice question examination compared to those students who attended the same content based lecture on PowerPoint or chalk board alone. Not everyone, however, will have the necessary skills to make effective use of the overhead projector or of the chalk board and equipment with the required performance specification now is not usually available.

Would it help if we adopted an alternative presentation tool to PowerPoint? Because Microsoft bundled it with Microsoft Office, PowerPoint was an easy choice for users and it was compatible with what most other people had. There are noteworthy competitors, however, some offering capabilities that are more impressive than PowerPoint. Alternatives include Serious Magic's Visual Communication 2 (www.seriousmagic.com), Corel Presentations 12 (www.corel.com), and Pro Presentations 3 (Harvardgraphics.com). It is unlikely however that switching to an alternative programme would deal with the problems we have discussed. The fault almost invariably lies not with PowerPoint but with the presenter. It is not PowerPoint that does a poor job–it is the lecturer or speaker. In a useful book on the topic, 'Killer Presentations', Outon (2005, p. 19) argues that the problem with PowerPoint lies in how it is used. Transform its use and you transform its effect. He gives an interesting analogy. 'Consider a 13th century Samurai sword, crafted by someone who dedicated their life to perfection, creating a blade so sharp it can cut falling silk, so strong it can slice through trees. In the hands of the Samurai, the sword represents justice, protection and a way of life based on simplicity and harmony. To many people it is a thing of beauty. Yet not so long ago in the UK such a sword was used to kill innocent passersby, by a man clearly unhinged. Does that make the sword evil? Does it diminish its beauty or its youthfulness? Clearly it does not. PowerPoint is the same: just because many of its 450 million users use it badly, that does not make a bad piece of software. It simply exposes some

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inadequate communication skills.' We should recognize that the solution with PowerPoint is apparent: we need not change the tool, merely change the way we use it.

What then can we do to improve our PowerPoint presentations? Here are three things for consideration. First we need to recognize that PowerPoint presentations, while embracing the use of technology to assist with the communication of the message, in many ways should be no different from other presentations and the same rules apply. Master the skills of making a presentation and an immediate beneficial impact on the use of PowerPoint will follow. Nisbet (2004), Professor of Education at the University of Aberdeen, noted 'I am not alone in being concerned at the poor quality of presentation in some of the papers I hear at conferences. This is not a matter of voice production, nor something that can be remedied by PowerPoint however skilfully done . . ..' He argues that presenting a paper at a conference is very different from writing a paper for publication. For example, in a presentation the traditional sequence used in written reports (introduction, previous work, aims, methods and so on) is liable to be boring and indeed may distort the balance of the presentation. He reminds us that Aristotle in the *Poetics* recommended starting a drama in *medias res*, into the middle of the action, a technique used in novels and films, and worth considering as a means of catching the full attention of your audience in a presentation. Many of the skills of presenting at conferences and meetings are similar to the skills of lecturing as described in the AMEE Education Guide number 22. In the guide, Brown & Manogue (2001) summarize the key skills of preparing lectures, explaining the topic and actively engaging the audience.

The first suggestion as to how we can improve PowerPoint presentations therefore, is to forget about PowerPoint in the initial planning for the presentation. First think of the target audience, the message you wish to convey, the strategies that you might adopt and the structure and timing of your presentation, including the beginning, the middle and the end. Only then look at how PowerPoint can be harnessed to help with the delivery of your presentation. You may be surprised at the effect this will have on your PowerPoint slides.

The second thing we can do is to look at some simple ways of improving our PowerPoint technique. You can learn to turn your PowerPoint presentation into an exciting occasion–just don't surrender to the allure of what PowerPoint has on offer. You don't need to use for example the off-the rack presentation templates and bullet point format provided by the software package. Examples of simple improvements to PowerPoint presentations can be seen on the M62 visual communications group website (http://www.m62.net). A range of approaches are recommended you may not have thought about, such as the secret of the B or W keys. By pressing them the screen goes black or white allowing the audience to concentrate on you, the speaker, for a few seconds. Remember you, not your PowerPoint slides, should be the star of the occasion. A host of other sites are also available on the web providing practical advice on PowerPoint presentations. Writing in Medical Teacher, Holzl (1997) provides twelve tips for effective PowerPoint presentations. The paper offers practical advice and encouragement to potential users. This advice covers basic and practical tips on such matters as the size of text, fonts and use of colour. It also covers some of the specific features of PowerPoint which some users have difficulty with. The most useful tips, however, are the warnings

about the technological traps and pitfalls which may strike the unwary or, most importantly, the unprepared!

Third, think about breaking out of the mould of standard PowerPoint presentations. In so doing you may even break some rules such as the 10-20-30 rule evangelized by Kawasaki (2008)–a PowerPoint presentation should have ten slides, last no more than twenty minutes, and contain no font smaller than thirty points. I have liked to think of my own PowerPoint presentations more as a story or even a film script with the slides contributing in different ways–some summarizing key points, others introducing visual images representing a new idea or concept and others providing examples of what I am talking about. Other slides may be short two minute clips of individuals with a range of views. All help to frame the topic I am discussing and contribute in different ways to telling the story. Greenhalgh (2008) argued, in her usual articulate fashion, for a similar approach in her 'campaign for real lectures.' She wrote 'I recently decided that I had been on the receiving end of death by PowerPoint one too many times. I have probably also dished out my share of worthy, overly structured lists of bullet points to glazed uninterested audiences. So I'm starting' 'the campaign for real lectures'. She described how instead of a standard PowerPoint presentation she developed a different approach in which she linked each theme in her presentation to an image (or three) and showed 94 photographs, five designs, three pieces of abstract art, two maps and a graph. A similar filmscript type approach to the construction of a presentation, rather than the routine series of bullet point slides, was recommended by Atkinson (2007) in his book and supporting website, Beyond Bullet Points (www.beyondbullets.com/). Davies (2008) describes that while it is more time consuming when he adopted this strategy, he received much better feedback on his presentations. Writing also in the British Medical Journal, Braithwaite (2008) indentified another excellent resource that described the use of engaging, image-based presentations the Presentation Zen blog (www.presentation-zen.com) and associated book, As well as denigrating the use of bullet pointed, text heavy slides, its author, Garr Reynolds, urges presenters to focus on the story that their presentation is trying to tell, rather than getting caught up in the minutiae of font sizes and sound effects.

Arguing the need for effective staff development programmes, McLean et al. (2008) suggest that teaching is not an innate gift. Teachers require support in developing the 'art' or teaching. With appropriate support and training perhaps we will see fewer bad PowerPoint presentations and the diseases of PowerPoint phobia (PPP), PowerPoint stress disorder (PPSD) and a form of depression called PowerPointlessness (Isaacs et al., 2007) will become problems of the past. Used properly PowerPoint can contribute to an effective and interesting presentation, used badly it will disengage the audience, trivialise content and almost certainly fail miserably to communicate the required message to the audience. The fault lies not with PowerPoint but with the teacher. Nisbet (2004) describes how 'the Victorian genius, Francis Galton, devised a means of measuring the attentiveness of an audience, his 'fidget index' [Nature, 32 (1885), 175 'The measure of fidget']. When he found himself bored with papers at meetings of the Royal Geographical Society, he switched his attention to the audience and counted the number of head movements per minute. Using 15 breaths per minute as a time

check (to avoid being seen wearing a watch), he established an average fidget rate of 45 per minute, but this figure halved when the audience was attentive to the speaker'. Perhaps we need to apply a 'Fidget Index' to monitoring PowerPoint presentations. More careful planning of the presentation, using some different PowerPoint techniques and perhaps even adopting a new approach to a PowerPoint presentation may yield rich rewards and a more attentive and appreciative audience.

Acknowledgements

Notes on contributor

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