

The Return to Flight Task Group made their evaluations and decisions based on closure packages that described the post-Columbia shuttle repairs. In the final report, 7 Task Group members reported that these “inadequate and disorganized” packages, often huge decks of PP slides, provoked “our frustration”:<sup>13</sup>

Closure packages, which should have represented the auditable, documented status of the NASA implementation of the CAIB recommendations, tended to rely on mass, rather than accuracy, as proof of closure. The closure packages showed an organization that apparently still believes PowerPoint presentations adequately explain work and document accomplishments.<sup>14</sup>

In an example of the pitch culture in action, some closure packages were provided prematurely to the Return to Flight Task Group in apparent behind-the-scenes maneuvers to discover just what it might take to get approval for the post-accident shuttle repairs. The idea might have been that if it is too late to change the engineering, then change the pitch about the engineering. The Task Group thus found it necessary to repeat Richard Feynman’s famous conclusion to his report on the first shuttle accident, the 1986 loss of the Challenger: “For a successful technology, reality must take precedence over public relations, for Nature cannot be fooled.”<sup>15</sup>

By using PP to report technical work, presenters quickly damage their credibility—as was the case for NASA administrators and engineers pitching their usual PP decks to these 2 very serious review boards.

Both the Columbia Accident Investigation Board and the Return to Flight Task Group were filled with smart experienced people with spectacular credentials. These review boards examined what is probably the best evidence available on PP for technical work: hundreds of PP decks from a high-IQ government agency thoroughly practiced in PP. Both review boards concluded that (1) PowerPoint is an inappropriate tool for engineering reports, presentations, documentation and (2) the technical report is superior to PP. Matched up against alternative tools, PowerPoint lost.

Serious problems require a serious tool: written reports. For nearly all engineering and scientific communication, instead of PowerPoint, *the presentation and reporting software should be a word-processing program* capable of capturing, editing, and publishing text, tables, data graphics, images, and scientific notation. Replacing PowerPoint with Microsoft Word (or, better, a tool with non-proprietary universal formats) will make presentations and their audiences smarter. Of course full-screen projected images and videos are necessary; that is the one harmless use of PP. Meetings should center on concisely written reports on paper, not fragmented bulleted talking points projected up on the wall. A good model for the technical report is a scientific paper or commentary on a paper published in substantial scientific journals such as *Nature* or *Science*.

<sup>13</sup> Final Report of the Return to Flight Task Group, July 2005, 195.

<sup>14</sup> Final Report of the Return to Flight Task Group, July 2005, 195.

<sup>15</sup> Richard P. Feynman, “What Do You Care What Other People Think? Further Adventures of a Curious Character (New York, 1988), 237; and quoted by the Final Report of the Return to Flight Task Group, July 2005, 194.