Where did the Misuse of the names Gantt and PERT Originate?

Following on from the publication of my paper ***Henry L Gantt, 1861 – 1919: Debunking the myths, a retrospective view of his work***[1] in the December 2012 edition of the PM World Journal, a number of discussions with colleagues has raised the questions:

- • Why are barcharts so often referred to as Gantt Charts?
- • Why are network diagrams (ADM or PDM) so often referred to as PERT charts?

My research, outlined in this paper[2], demonstrates that Gantt's supposed influence on project management (outside of his involvement in Taylor's 'scientific management') is an invention of the recent past. Looking back at my project management training in the early 1970s, and reading through mainframe and mini-computer manuals and early PC system manuals from the 1970s and 80s, the term 'bar chart' predominates, and is used uniformly in both UK and USA documentation.

Similarly, the term PERT was primarily concerned with the calculation of the probability of completing the PERT critical path by a particular date[3]. And by the 1970s PERT was seen to be a suboptimal process for determining this probability, rapidly being replaced by Monte Carlo simulation.

When the terms PERT and Gantt Chart were used in the 1970s these terms were generally used to accurately describe the documents and processes the names were originally coined for: Gantt Charts for production control tools in factories, PERT for the calculation of probabilities using standardized formula.

Note: The conclusions in the paragraph above are based on fairly limited resources. I would be very interested to hear from colleagues if there are examples of the wide spread use of the terms from this period – all emails will be responded to.

A possible source of the current misuse of the terms.

Around 1984/5 Microsoft Project was launched and it used the term 'Gantt Chart' for its bar chart view and 'PERT chart' for its PDM (or CPM) network diagram. Both terms are 'wrong' form a purist perspective, but the increase in the usage of both terms seems to correlate with the rise to dominance of Microsoft Project over many competing PC scheduling tools.

This change in usage can be seen using the Google Ngram Viewer. This tool counts the number of times a word is used in books that have been digitised compared to the total number of words. By using the Ngram viewer to plot the use of specific words in books we can see an interesting jump in the use of Gantt and Gantt Chart (and PERT Chart) that coincides with the emerging dominance of Microsoft Project as the scheduling tool for the masses.

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[1]   For more on ***Henry L. Gantt*** see: https://mosaicprojects.com.au/PMKI-ZSY-025.php

[2]   Originally published Weaver, P. *PM World Journal,* Vol. II, Issue IV – April 2013. www.pmworldjournal.net

[3]   For more on ***PERT and the misuse of the name*** see:
http://www.mosaicprojects.com.au/WhitePapers/WP1087_PERT.pdf

Google books Ngram Viewer

Graph these **case-sensitive** comma-separated phrases: | Gantt,Gantt Chart |

between | 1910 | and | 2005 | from the corpus | English | with smoothing of | 5 | .

[Search lots of books]

Searching Gantt and Gantt Chart shows a predominance of writing about the man during his career, with the emergence of the term Gantt Chart consistent with the work of Wallace Clarke published in 1923. The difference in the level of usage of the term Gantt compared to Gantt Chart reflects Henry Gantt's importance in the development of management science. The upturn starting in the mid-1980s coincides with the release of Microsoft Project
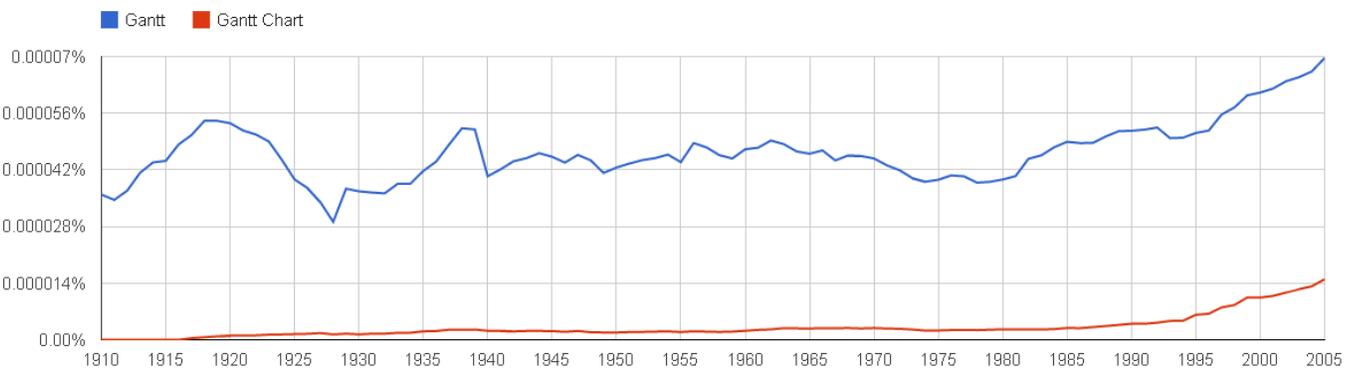

The next chart plots the relative use of the terms Bar Chart and Gantt Chart from the emergence of 'modern project management' starting at the end of WW2, through the build-up of interest in the 1980s to the explosion of interest in project management in the 1990s. What this chart demonstrates is the sudden replacement of the term Bar Chart with Gantt Chart from around 1996.
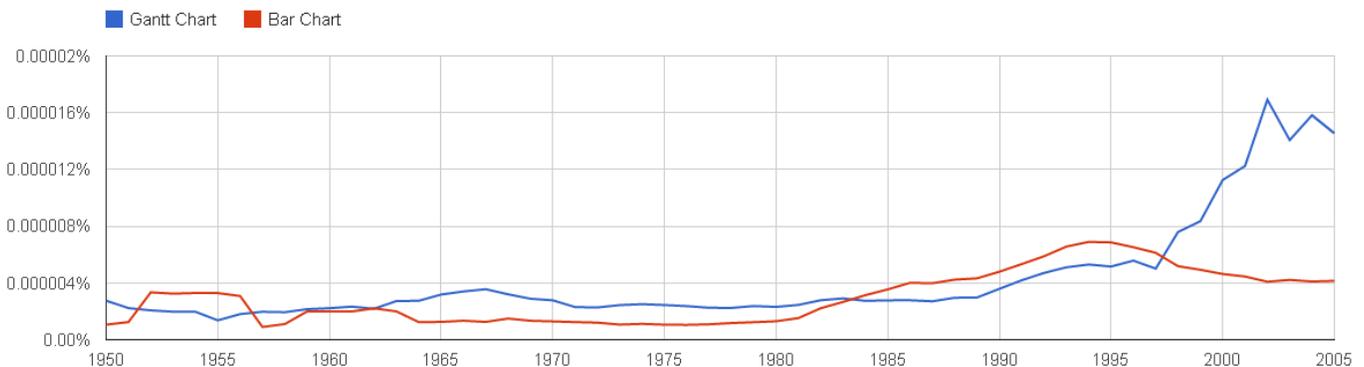
A similar curve can be seen for the term PERT Chart despite PERT being largely obsolete by the 1990s.

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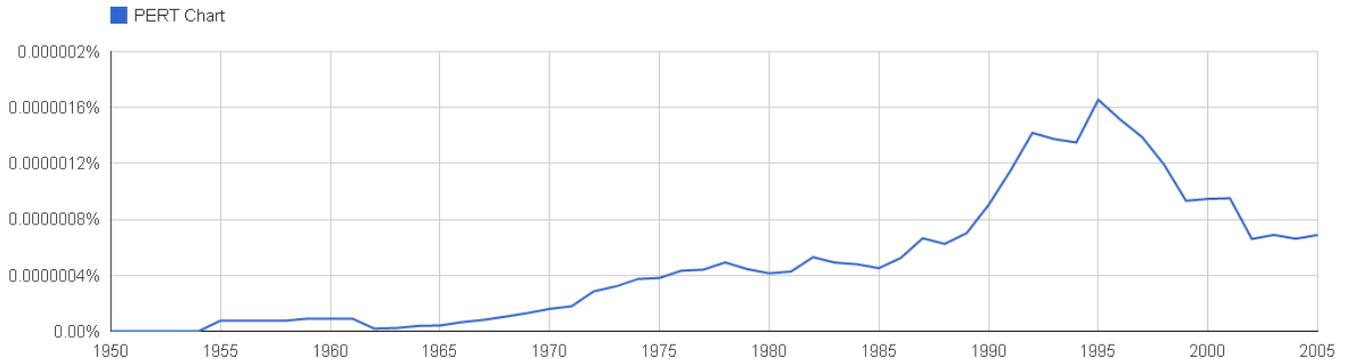
The timing of the upsurge in the use of the terms PERT Chart and Gantt Chart coincides with the launch of the Microsoft Windows operating system which was closely followed by the ascendency of Microsoft Project as the dominant desk top scheduling tool and the demise of dozens of other scheduling tools that found the move from DOS to Windows too difficult in a highly competitive market and simply disappeared.

These ramp ups also align with the change in scheduling practice from an environment where schedulers were seen as skilled practitioners (a hangover from the mainframe days) to a situation where scheduling tools were as easy to use as any other Windows application and virtually anyone could be a scheduler. Through the 80s and 90s, the software application taught people scheduling and the names applied by the tool was accepted without question. With Microsoft Project having a market share of 90%+ its names became standard[4].

Project management was fairly well defined by the end of the 1970s by IPMA, PMI, AIPM and a few other associations, but the new schedulers of the 1990s were largely unaware of the associations and their bodies of knowledge. They simply used the names that came out of their software boxes.

Summary

Correlation is not causation; however, if these preliminary findings hold up to scrutiny, it may be reasonable to suggest the changing of the name of a bar chart from 'Bar Chart' to 'Gantt Chart' and the sudden re-emergence of PERT can both be firmly laid at Microsoft's door. The Ngram tool has the ability to assist data analysts to push these preliminary findings further – what's needed is someone with the requisite skills!

In the meantime, we should all try to use the correct name for charts, diagrams and processes. It may come as a surprise to some, but the name we call things matters because it communicates what we are talking about to our audience[5]. The alternative was effectively described by Robert McCloskey, a US State Department Spokesman several years ago *'I know that you believe that you understood what you think I said, but I am not sure you realize that what you heard is not what I meant!'* Effective communication needs a mutual understanding of the terms used, and this is helped if the terms are consistently used for their correct purpose.

I look forward to receiving any comments or feedback particularly relating to the usage of the terms Gantt Chart and PERT Chart in the 1970s and 1980s.

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4   The effect of the easy-to-use desktop tools on the practice of scheduling is discussed in *A Brief History of Scheduling* at pages 12 -13, see: https://mosaicprojects.com.au/PDF_Papers/P042_History_of_Scheduing.pdf

5   For more in *communicating schedule information* see: https://mosaicprojects.com.au/PMKI-SCH-008.php

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