The Entropy at the heart of Project Management



THE ENTROPY AT THE **HEART OF PROJECT MANAGEMENT**

Patrick Weaver

Director, Mosaic Project Services Pty Ltd





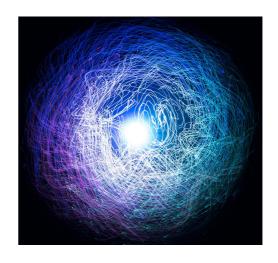






AGENDA

- What is modern project management and how did we get here?
- Where is project management going?
- The challenges for the Associations!
- Conclusion



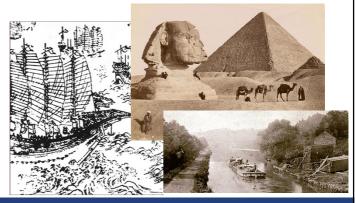








- People have been doing things that require planning and organization for millennia:
 - Building temples and monuments
 - Voyages and exploration
 - Engineering roads, canals, railways, etc
- But no one involved in leading these endeavours called themselves a project manager







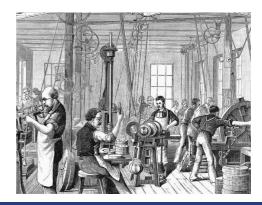






WHAT IS MODERN PROJECT MANAGEMENT?

- The building of factories in the 18th century created the need for formal management structures
- Important management theorists include:
 - Frederick Winslow Taylor (1856 1915)
 - Henry Gantt (1861 1919)
 - Henri Fayol (1841-1925)
 - Max Weber (1864 1920)



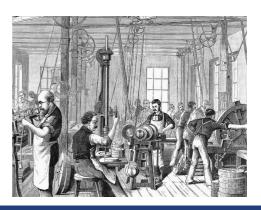








- From Adam Smith* onward the two fundamental concepts underpinning 19th century industrial management were:
 - Reductionism
 - Command and control
- My research shows project management emerged from business management in the USA starting in the 1930s and 40s#
 - * The Wealth of Nations, 1776
 - #See: https://mosaicprojects.com.au/PMKI-ZSY-005.php







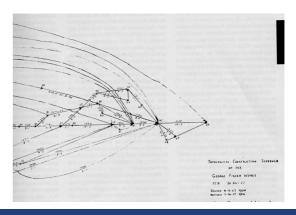






WHAT IS MODERN PROJECT MANAGEMENT?

- The catalyst for the emergence of modern project management was the development of PERT and the critical path method of scheduling in 1957
- Practitioners of this new craft formed the early project management associations:
 - INTERNET (now IPMA), Europe in 1964
 - PMI, USA in 1969
- AIPM started in 1976











- The project management associations defined and created the concept of modern project management
- PMI created the first project management body of knowledge in 1987 to support their original PMP examination













WHAT IS MODERN PROJECT MANAGEMENT?

- The structure of the PMBOK® Guide was reorganized in 1996 and remained fundamentally unchanged through to the 6th Edition published in 2017
- The project phases, knowledge areas, and processes, defined in the PMBOK® Guide had a major influence on the concept of project management world-wide











- The 20th century version of Modern Project Management was:
 - Based on reductionism (WBS, etc.)
 - Focused on control (CPM, PERT, EVM)
- Project management knowledge areas were based on a typical engineering company's departments
- Projects involved people with hard hats creating something you can kick













OLD PM ASSUMPTIONS

- Project success was to be achieved by implementing the processes in the standards effectively
- Project failure could be overcome by the better application of better processes
- Internationally efforts were focused on:
 - Identifying and defining the processes
 - Training people in the processes
 - Qualifying trained people as PMs







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OLD PM ASSUMPTIONS

- Project management was a transferrable skill
- Projects were special and distinguishable
- Good project management could be defined
- With a bit more work we will be able to fully define projects, project management and the processes needed for project success
- ISO 21500:2012 was the pinnacle of this journey











THEN THERE WAS ENTROPY



Low Entropy

A natural progression

- Entropy describes the level of disorder in a
- Entropy shows that all systems will tend to become less ordered over time
- Work has to be applied from outside of the system to return it to an orderly state



High Entropy



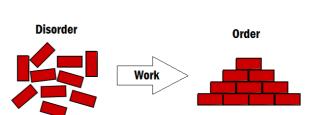






THEN THERE WAS ENTROPY

- For 40 years project management associations have worked to create order in the discipline of project management
- For the first 30 years there were successes
- But in the last ten years external influences have caused a rapid increase in entropy
- And because of these influences the efforts to standardize project management are no longer feasible













DRIVERS OF ENTROPY

- Everything is a project
- Methodology overload
- Project scope is expanding





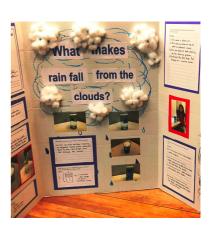


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EVERYTHING IS A PROJECT

- Traditional 'hard hat' projects have been joined by:
 - School projects
 - IT projects
 - Business change projects
 - Research projects
 - Environmental projects
 - Volunteer projects, etc.
- In the 21st century almost anything can be a project











METHODOLOGY OVERLOAD

- Approaches to project delivery now include:
 - Agile
 - Light and lean concepts
 - Complex project management
 - Traditional, waterfall, etc.
- Agile includes:
 - Various approaches: Scrum, Kanban, XP, and a range of blends
 - With ranges of control: SAFe, Disciplined Agile, 'no-planning'











PROJECT SCOPE EXPANDING

- Project management has expanded to include:
 - Portfolio management
 - Program management
 - Benefits management / organizational change management
 - Front end loading
- Contract forms are expanding:

 - Partnerships and integrated supply chains
 - ECI, Turnkey, BOOT, etc.







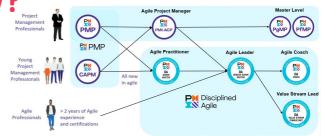




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WHERE ARE WE NOW?

- The range of PM qualifications are expanding
 - PRINCE2
 - PMI
- Association memberships are declining
- Qualifications are becoming confusing
- There is no longer a right way to manage a project
- The concept of a project manager is extremely variable









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WHERE NEXT?

The challenges for PM associations are:

- Redefine project management: Managing a temporary team, created to deliver a predefined outcome for an organizations in a disciplined way.
- Identify the universal factors that are consistently required to make a project
 - Temporary teams appear to be one constant
 - Stakeholder engagement and communication another
- Rebuild a purpose around these core attributes











WHERE NEXT?

- The alternative future seems to be one where project management diversifies and becomes centered around special interest groups in organizations such as:
 - ACS
 - Engineers Australia
 - AIM
 - Chartered Institute of Building, etc.
- Each of the above will have their own way of doing projects
- What future do you want for AIPM and the project management associations?





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The Future



QUESTIONS PLEASE

Patrick Weaver

Director, Mosaic Project Services Pty Ltd patw@mosaicprojects.com.au









