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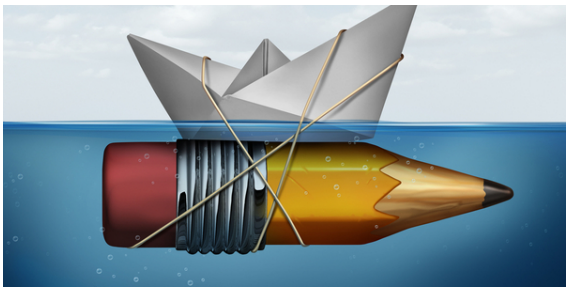
How to Achieve the Rapid Delivery of Enterprise Architecture (EA) and Realize its Full Strategic Potential?



By Clive Finkelstein [1]

EA has been widely used by many organizations to manage their data, processes, locations, people, time and business plans. But many EA projects have not been managed effectively by Senior Business Management. Because EA involves computers, the EA projects have been relegated to the IT department with little active guidance from senior management. Let me use an analogy to illustrate.

Consider that you want to build a house in the woods. “If all you want is a log cabin, quoting John Zachman: [2] “all you need is an axe and a bunch of trees”. You may also want to use a Builder, but you don’t need an Architect.

1 Clive Finkelstein is acknowledged worldwide as the “Father of *Information* Engineering” (IE), developed by him and his Australian Company: “*Information* Engineering Services Pty Ltd (IES)from 1976 -1980.
2 John Zachman is acknowledged worldwide as the “Father” of the “Zachman Framework for Enterprise Architecture”.

If you want the house to be your dream home, your ideas may not be the same as the Builder. You may want a basic home initially, but with the ability to expand in the future as you add to your family, so you would want to make provision for a bedroom wing for the children with room for a swimming pool and perhaps a gym.

For this dream home to be built according to your wishes you will need an Architect to understand your ideas and incorporate them into the design of the house. Once you and the Architect have agreed on the design, he confirms that the house can be built on your site and draws up floorplans for the Builder, who will give you a quote. When the building is completed it will be as you and the Architect designed, with provision for future expansion.

An Architect is essential to translate your wishes into concrete plans for your house. It will not collapse on the site as the suitability of that site for the house was pre-determined.

Architecture is essential for buildings and planes and also for computer systems. Planes still fly after 50 years because they are designed by Aeronautical Architects and Engineers. If a defect is found in the design, modifications are made to the design and that modification is added to the plane's Maintenance Log. The same changes must be made to every other plane of the same design. The Maintenance Log is an audit trail of all changes made to every plane of that design.

Many buildings are still standing after hundreds and thousands of years (castles and pyramids) because of their architectural design. The reason why Enterprise Architecture has not yet reached its full potential is because many EA projects did not have active participation from Senior Business Management on changes to the Strategic Business Plan and planned future directions for the organization.

Many organizations were established without a formal business plan: some just evolved based on the founders' ideas. A business plan should contain the following information:

- Industry
- Mission
- Strengths, Weaknesses, Opportunities and Threats (SWOTs)
- Current and future Markets
- Current and future Products and Services
- Current and future Channels to deliver Products and Services to Markets

Eventually senior management define business plans to address these points, but they generally do not share this information with the IT department. Without the active participation of senior management in EA projects, the IT department may have no idea of what senior management are thinking. What is needed is a methodology to "integrate business plans with modern innovative systems development tools".

Such a methodology exists: it is called "Automated Strategic Enterprise Architecture Management (ASEAM) [3]. This is a methodology to train senior and middle-level business managers, business experts, IT managers, IT experts and systems analysts in Strategic Business Planning so they can all work together jointly and collaboratively to define a Strategic Data Model based on the Strategic Business Plan. This data model is analogous to the floorplan layout documented by the Architect for the Builder. It indicates how the data is interrelated and used in the organization. Modeling Tools use the data model to automatically generate data bases and systems (using "Business Process Modeling Notation" (BPMN).

ASEAM analyses the data model to identify reusable processes and derive project plans for priority processes that are to be delivered into production early. It has been very successful in delivering incremental functionality to systems every 3 months. It is fully documented in a Reference Textbook [4] and online video courses [5]. It has been fully automated in a Modeling Tool (Visible Advantage) that was acquired by Visible Systems Corporation (Visible) in Boston (www.visiblesystemscorporation.com).

Visible is currently incorporating the ASEAM Methodology and functionality from Visible Advantage into their other Modeling Tool: Visible Analyst which runs under Windows 10.

The ASEAM Methodology can also be used for "Automated Rapid Business Change" (ARBC). This is vital for organizations to benefit and survive the competition and technological Threats and Opportunities that are presented as we enter the 4th Industrial Revolution in the 21st Century. These technologies include: Blockchain, Artificial Intelligence (AI), Biotechnologies, Robotics, Internet of Things (IoT) and others.

Clive Finkelstein is currently incorporating the *ARBC Methodology* into the ASEAM courses as shown in the video courses [5] to use Visible Analyst. These courses will be offered for Copyright Sale on the Internet, via LinkedIn.

Many organizations are still using their existing legacy data bases that were developed in the 20th Century. These are characterized by high levels of Redundant Data. When data values change every Redundant Data Version must be updated so that the data bases are consistent and synchronized.

The ASEAM and ARBC methodologies both eliminate Redundant Data Versions, saving organizations hundreds of millions of dollars in Development and Maintenance costs and time. This is achieved through the normalization method called "Business Normalization". This also eliminates the need for Redundant Data Maintenance Programs, **saving organizations hundreds of millions of dollars in Annual Operation Costs. Redundant Data Entry,**

3 ASEAM was developed by Clive Finkelstein from 1995-2000. It is an enhancement to Information Engineering (IE) and was originally called "Enterprise Engineering" (EE).
4 The Reference Textbook is: Clive Finkelstein, *"Enterprise Architecture for Integration: Rapid Development Methods and Technologies"*, Third Edition, IES (2015). It can be downloaded in PDF from www.ies.aust.com/index.htm#Books (574 Pages) with a Foreword by John Zachman.
5 Go to www.udemy.com and search for "Clive Finkelstein". There are 6 video courses by Clive on "*Rapid Delivery of Enterprise Architecture"(50 hours) that show the automated support provided by* Visible Advantage.

Redundant Work, Redundant Staffing, Redundant Equipment and Redundant Floorspace.

Conclusion

- To realize the full strategic potential of Enterprise Architecture, a senior business manager should lead the EA project based on the strategic business plan.
- To achieve the cost savings of hundreds of millions of dollars through the elimination of redundant data versions, Business Normalization should be used. This is part of the ASEAM and ARBC methodologies.
- These automated methodologies are fully supported by Visible Advantage and this automated capability is being added to Visible Analyst, which currently supports Strategic Planning. It can be used now to capture Strategic Business Plans, so these plans can be used as soon as the full ASEAM capability is released in Visible Analyst.
- Training in ASEAM can be achieved through the online video courses: “Rapid Delivery of Enterprise Architecture” at : www.udemy.com and the Reference Textbook [4].
- The rapid delivery of EA projects into production as data bases and systems is achieved by the use of Modeling Tools such as Visible Advantage and Visible Analyst.