**The Transformation of Program Management**

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**How Future Program Managers Will Manage Scarcity…**

**When There Isn’t Enough Scarcity to Go Around**

By 2039, the program manager’s role will fundamentally change. The program manager of 2014, charged with the yeoman’s task of balancing cost, schedule and performance will be no more. This model, which was so successful in the mid-1900s, was suffering the symptoms of a larger societal shift away from Industrial Revolution doctrine and structure. The advent of the information/digital age was stressing previously established processes. Those symptoms, represented by untenable five year plans matched with the constant threat of reprogramming, broken schedules, and failure to meet performance objectives were the result of customers and stakeholders who could no longer play by the old rules that worked in the industrial era. As the world shifted to the information/digital age, new expectations were formed. It was only a matter of time until the technology that helped set these new expectations provided the means for program manager not only to meet them, but provide a new service of filtering in an age of abundance.

How did this change take place? A tipping point was reached, as a new generation of program managers came forward forged in the epoch of instantly available digital data, crowd-sourced solutions, 3-D printing, and abundance in information and content. This generation, the offspring of “digital natives” and best described as “digital consumers” grew up experiencing limitless content at their fingertips at low or no cost. Their electronic devices provided instant access to personalized choices from an abundance of information, education, and entertainment. Their 3-D printers provided near instant access to an abundance of personalized objects, clothing, food, for the price of “ink”.

This new generation also brought their method for dealing with failure (selecting “thumbs down” on a Pandora song, or “downvoting” a Reddit comment) to the office. Failure wasn’t a huge event to analyze. Rather, it was simply a learning point to quickly and effortlessly move forward from. It rarely required additional commentary let alone a new policy or statutory edict to resolve it, not least of which because the “problem” no longer existed as they moved almost immediately to the next candidate solution.

Historically, the Program Manager had honored the holy trinity of cost, schedule, and performance. In a world of abundant options and decentralized production methods, the program manager’s new trinity became a matter of ensuring safety, suitability, and effectiveness.

The status quo continued to manage scarcity in a system that was increasingly disinterested in the concept. All it took was an enterprising Maintenance Group – unsatisfied with traditional DLA supply chains – to invest in an organic 3-D printing capability to begin chip away at the illusion of “scarcity”. No longer were mission capable rates tied to “awaiting parts”, and over time the base warehouse was repurposed as a gym. Once engineering from the depot approved the parts, they were available on demand at greatly reduced cost and without a supply chain.

This new approach for sustainment became a game changer for acquisitions as well. Parts and systems were easily replicable once the printer “template” was obtained; and with the prevalence of the technology, there was no shortage of capable providers. In fact, there was an overabundance of capable and not-so-capable providers. This became one of the major issues that the future program managers needed to address. Integration of approved templates became the value-added proposition of many defense firms and it became the program manager’s job to ensure the use of open-source technology while sifting through the myriad of available solutions.

Suddenly the challenges that Program Managers had historically faced became the strengths of the system. Funding became less of a concern since development, production, and sustainment costs plummeted. Changing requirements became much easier to adapt to with the wide engineering base and use of 3-D printer templates; even enabling organizations to adapt to changing dynamics in real time! In this environment, the Program Managers biggest role becomes that of guardian – serving as a facilitator in the adoption and use of templates and decentralized production at greatly reduced cost. In this world where scarcity itself had become scarce, program management was flipped on its head. Where before there wasn’t enough funding, now the program manager had to deal with too many “free” unapproved solutions. Where schedules were a limitation that needed to be bought down, now the program manager was vetting solutions to meet instantaneous expectations. Where performance suffered from changing requirements, now the program manager expected new requirements for customization constantly.

The scenario described above only factors in changing demographics coupled with one disruptive technology – 3-D printing. It is fair to say that there will be several other dramatic technology improvements in the next 25 years that will reshape the expectations of the future customer. The bottom line is that a new engaged workforce is coming of age and wants to see the current system change – dramatically. At the same time, society is changing from an Industrial Revolution “scarcity” mentality to one where digital systems combined with 3-D printing will ensure immediate, customizable production at little or no cost. The public sector program manager will change; from the over cost, behind schedule, and underperforming cog in a scarcity-oriented system to an enabler and protector, ensuring safety of immediate, customized, production helping customers to get what they need when they need it.