

# The Enchanted View - Thinking About Systems -

Published quarterly and sent to all INCOSE Enchantment Chapter members.

www.incose.org/enchantment

2015 Q4



### **Your 2016 Election News**



Rick Dove, Chapter President, Paradigm Shift International

If you haven't had enough election news, or found any of it decisive as yet—here are some things closer to home, much more timely, and in need of your attention.

Chapter Board and Officer positions will be voted on in November. At that time you will be able to offer write in names in addition to the nominee slate that the current board has developed. You will receive an election notification ballot in late October, with nominee bios. The full slate and bios will also be posted on the Chapter website.

Your Chapter President (that's me) will be running for INCOSE President Elect. The President Elect serves for two years and then becomes President for two years. Position statements for all nominees will be distributed by INCOSE shortly, and an INCOSE webinar is being scheduled for Wednesday, October 28, where nomi-

nees will discuss their positions, answer questions, maybe even have a bit of a debate. INCOSE webinars have been traditionally held 9:00-10:00 Mountain Time. My position statement is shown on page 5 of this newsletter, and I would like your vote.

# **December 4—Holiday Social with Special Guest**

Mary Compton, Sandia National Labs

We don't yet know what he'll speak about, but joining us at the December Chapter Holiday Social is Paul D. Mann, SES, Executive Director, U.S. Army White Sands Missile Range. The Senior Executive Service (SES) is a position classification in the civil service of the United States federal government, somewhat analogous to general officer or flag officer ranks in the U.S. Armed Forces. See *Next Meetings* section on page 3 for event details.

Mr. Mann is responsible for the development, approval, and implementation of all scientific and technical policies and procedures as well as resource management plans and programs for WSMR.

Among many other things, Mr. Mann completed a complex 50-month tour as Joint Program Manager, Mine Resistant Ambush Protected (MRAP) Vehicles Program, Marine Corps Systems Command, Quantico, Va. He led a team responsible for procurement, fielding, and sustainment of the MRAP family of vehicles for the U.S. Armed Forces/Coalition Partners. The program budget grew from \$900M to more than \$44B on his watch. The Joint MRAP program was the highest priority Acquisition Program in the Department of Defense and more than 27,000 vehicles were delivered and fielded in two theaters of operation.

His decorations include: The Secretary of Defense Meritorious Civilian Service Medal, Joint Meritorious Unit Citation, Rear Admiral Wayne E. Meyer Memorial Award for Acquisition Excellence, David Packard Acquisition Excellence for JPO MRAP, Commander's Honorary Acquisition Excellence, Two Navy Civilian Superior Service Medals, NAVSEA Engineer of the Year, Consecutive Outstanding Performance Awards and three AEGIS Excellence Awards.



At work and at home.



# **Chapter Gold Circle Award for 2014 Received**

Barclay Brown, INCOSE Director for Americas Sector

On behalf of the International Council on Systems Engineering (INCOSE), we are pleased to recognize the Enchantment Chapter



PRESENTED JULY 2015

as a **Gold Circle Award Chapter** based upon its contributions and accomplishments in 2014. The Gold Circle Award recognizes chapters adopting best practices and reaching the highest goals and standards established by our organization.

For many, chapters provide the primary day-to-day interface with INCOSE. Chapters organize technical and social programs, communicate key information about our organization and discipline, support technical activities, and enhance the member experience by facilitating an open, inviting environment where members receive valued products and services that enhance their careers. In fulfilling this mission, the Enchantment Chapter leaders and members have committed significant time and energy to further the goals of our organization.

Sincerely, Barclay Brown, INCOSE Director for Americas Sector.



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# Sign Up Now for October 23 Tutorial: Interface Management

Title: Interface Management—From Theory to Modeling
Presenter: Mathew Hause. Date: Friday, October 23, 2015
Cost: INCOSE member \$150. Non-member \$200. Student member \$0.
Location: Work Force Training Center, 5600 Eagle Rock Ave. NE,
Albuquerque, NM, http://www.cnm.edu/depts/wtc/index.html.

Detail and registration information at www.incose.org/enchantment

Abstract: Systems interoperate using interfaces. They exist between capabilities, organizations, people, systems, systems of systems, and so forth. Interfaces are used to support both system to system communication as well as supporting the complete set of enterprise goals. This tutorial addresses system interface-management issues and the benefits of model-based approaches. An initial focus will be placed on interface information content that needs to be addressed at each level of system decomposition – from external stakeholders to system boundary to, eventually, system component- to-component. The focus will then shift to methods for reducing interface management theory to model-based and functional/logical design practice. We will also cover system interconnection and communications, how they change, operate and evolve over time to implement mission goals and to satisfy stakeholder needs.

#### **Topics:**

- Defining stakeholder goals and required capabilities
- Interface definition with MBSE
- Logical Architecture Interfaces
- Physical Architecture Interfaces
- Allocation across cross cutting views
- Technical Standards Views and interfaces
- How behavior drives interfaces which drive behavior
- Service Oriented Architectures
- Traceability throughout the DoDAF.



**Matthew Hause** is a PTC Engineering Fellow and GTM Technical Specialist, the co-chair of the UPDM group a member of the OMG Architecture Board, and a member of the OMG SysML specification team.  $\infty$ 

## **Albuquerque Regional Event in Planning for 2016**

#### Chapter Board

The Chapter is planning an Albuquerque 2-day Systems Engineering event for the fall of 2016. Attendance at the INCOSE International Workshop and International Symposium is out-of-reach for many members due to attendance fees and travel funding, and 5 or so days away from work. The 2016 and 2017 International Symposiums are both scheduled for overseas locations, which will likely reduce the usual number of Chapter members that attend.

But the primary motivation for having a local event is to offer members a chance for quality professional development, with active exposure to others in the wider systems engineering community.

The event will feature some high-point 30-minute plenary presentations, but principally favor a variety of ½ day parallel-track workshops. Workshops might lead off with a 30-minute workshop-leader presentation to establish the area of workshop focus and suggest open issues for subsequent collaborative discussion – as opposed to tutorials or monologues.

The purpose is to bring broad and diverse though to bear on issues of member interest, develop a richer collective understanding from a diversity of perspectives, and provide participants with new thought for application in both day-job needs and personal intellectual pursuits.

The event will be open to participation by anyone interested in the agenda. Outreach will be made to other INCOSE Chapters as well non-INCOSE members.

Workshops of course imply work. Some of that work will be from active participants that have thoughts they would like to air to instigate feedback from others. Some of that work will be from passive participants, who want to hear what others have to say to help gel their own thinking.

This is an event for you, and the delivered quality will be determined by the plenary presentations and workshop agenda. What would entice your workshop participation, or perhaps workshop leadership? What's on your mind that wants some airing? What plenary presentation subjects would you like to hear or offer? Send your thoughts to Mary Compton at  $\underline{mlcompt@sandia.gov}$ , the sooner the better, and as often as these thoughts come to you.

### Why Strategy Execution Unravels—and What to do About it

Harvard Business Review—Google title above, click free article.

Research reveals that several common beliefs about implementing strategy are just plain wrong. This article debunks five myths:

1) Execution equals alignment, but the real problem is coordination: People in other units can't be counted on.

2) Execution means sticking to the plan, but changing market

conditions demand agility.

- 3) Communication equals understanding, but only half of middle managers can name any of their company's top five priorities.
- 4) A performance culture drives execution, but companies need to reward other things: agility, teamwork, and ambition.
- 5) Execution should be driven from the top, but it lives and dies with managers in the middle, and they are hamstrung.



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#### **Recent Meetings**

Ann Hodges, Sandia National Labs
Recorded presentations are posted on the Enchantment Chapter website.

**July 8**—The Summer Social this year included a tour of the Sandia Tram Lower Terminal followed by a social mixer and dinner at Sandiago's.

A wonderful tour was provided by George Boyden, one of the lead technical staff of the "behind-the-scenes" equipment and activities. 22 people attended the tour, and 28 (including George B.) attended the social, where participants enjoyed networking, free appetizers and a free drink, courtesy of the Chapter, and an enjoyable dinner. A great time was had by all!



August 12—Technion and visiting MIT Professor Dov Dori highlighted the working principles of Object Process methodology (OPM), with examples from various domains, explained the differences between OPM and SysML, and presented the upcoming ISO 19450 OPM standard.

He spoke of how model-based systems engineering promotes the use of modeling and models as focal design artifacts to enhance the rigor and robustness of systems engineering activities throughout the various phases of a system's life cycle, with emphasis on the early, conceptual phases. The Object Management Group's Systems Modeling Language (SysML) and Object-Process Methodology (OPM) are the two conceptual modeling languages currently in use.

**September 9**—Mr. Rick Dove, IN-COSE Fellow, presented a preview of his following week INCOSE Webinar: *Agile Systems and Processes: Quality Fundamentals – The Art of Agile Systems Engineering.* 

His presentation dealt with users (of all kinds) that have to be highly engaged in an agile systems engineering process, in order to sustain the process' agility in operational environments that are Unpredictable, Uncertain, Risky, Variable, and Evolving (UURVE).

Sustainability was shown as enabled by an architecture and a Concept of Operations based on design-quality principles of Requisite Variety, Parsimony, and Harmony. Game-time American football was used as an example of an agile process that is not unlike agile systems engineering in relevant respects.

A subsequent update to the Chapter presentation (now on the Chapter Library site), showed engagement of users that become one with the systems they interact with: bicycle riders, automobile drivers, and fighter plane pilots. The presentation closed with a framework that engages users with processes and systems, and then related that framework to the agile software development process known as Scrum.

#### **Next Meetings**

Ann Hodges, Sandia National Labs

#### October 14: Phoenix Sky Harbor Terminal 3 Modernization Program

Jennifer L. Maples, Aviation Superintendent, Phoenix Sky Harbor International Airport.

**Abstract:** The goal of the Terminal 3 Modernization Program is to replace aging infrastructure and create a more efficient, sustainable, and cost effective terminal for passengers and business partners, all while minimizing impact to existing operations. The program will be constructed in phases over five years, and will allow the closure of Terminal 2 – the oldest of the terminals at Sky Harbor. All of the major building systems will be replaced or enhanced while four airlines continue to operate in the terminal, processing approximately 4 million passengers per year. This ambitious and complicated project will be accomplished using the Design-Build delivery method, and construction began in March 2015 with an estimated completion in 2020. Join us as we discuss the complexities of rebuilding a 24/7 operational facility at one of the busiest airports in the country.

#### **November 11: A Complexity Primer for Systems Engineers**

Dr. Jimmie McEver, Senior Scientist, JHU Applied Physics Laboratory, Chair of INCOSE Complex Systems WG.

**Abstract:** Complexity is increasingly being recognized as a fundamental challenge across the life cycle of engineered systems, arising in the environmental context for which systems are developed, the ecosystems in which they will be used, and the systems themselves. The INCOSE Complex Systems (CxS) Working Group recently developed a primer on complexity as a brief introduction to concepts and approaches for systems engineers and program/project managers who suspect they may encounter complexity-related challenges. The primer describes how complexity can be identified in an environment, a problem space, or a solution space, and discusses guiding principles and approaches for effective systems thinking and systems engineering in these contexts. In this talk, Dr. McEver, Chair of the Complex Systems Working Group and one of the primer co-authors, will present key concepts from the Primer, and discuss other activities of the working group.

#### December 4: Holiday Social—Networking, Appetizers, Dinner, and White Sands Executive Director Paul Mann Speaking

**Location:** Chama River Brewing Company, 4939 Pan American West Freeway NE, Albuquerque, NM., in the private Porter Room.



**Abstract:** Cocktails & appetizers at 5:00pm, dinner at 6:00pm, runs until 7:30pm. \$20 a person, guests welcome. Chama River Brewing Company has award-winning, hand crafted ales and lagers brewed on site; high quality steaks, seafood, pasta and sandwiches; an elegant dining experience in one of our intimate dining areas; a huge, copper-clad bar for quaffing and people-watching; and private dining areas for parties and meetings.



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### 2015- 2016 UTEP Student Division Off to a Good Start

Aditya Akundi, President, UTEP Student Division

The INCOSE UTEP student chapter hosted a guest lecture by Dave Wiedmeyer, Stinger Ghaffarian Technologies (SGT) Flight Controller and Instructor at NASA, for 15 Systems Engineering students on September 17th, 2015.

The student division signed up nine new INCOSE student members in July, August and September. A very good job at revitalization promised in the last quarter's newsletter.

The main topics covered were an overview of the work in the Flight Operations Directorate, with ties to Integration, Verification, and Validation. Also covered were the topics on Flight Dynamics and Stowing procedures, Flight Executions, and Emergency Response and Planning; along with key attributes the future work force should have, such as Mission Cognizance, Systems Knowledge, Problem Recognition and Resolution, Management, Communication and Leadership Skills.



### Why Certifications Are Necessary (Even If Aggravating To Earn)

Slashdot Monday July 20, 2015 from the eat-your-broccoli dept. much as 16 percent to a tech professional's base pay; in addition a Whether or not certifications have value is a back-and-forth argument that's been going on since before Novell launched its CNE program in the 1990s. Developer David Bolton recently incited some discussion of his own when he wrote an article for Dice in which he claimed that certifications aren't worth the time and money.

But there's a lot of evidence that certifications can add as

lot of tech companies use resume-screening software that weeds out any resumes that don't feature certain acronyms. There's also the argument that the cost, difficulty, and annovance of earning a certification is actually the best reason to go through it, especially if you're looking for a job; it broadcasts that you're serious enough about the technology to invest a serious chunk of your life in it.

So ... go get your SEP certification!

## Job Opening: Los Alamos Systems Engineering Project Leader

R&D Engineer 4—What You Will Do: The Intelligence & Space Research (ISR) Division seeks a Systems Engineer to lead a significant effort in satellite-based nuclear detonation detection (SNDD) programs: the Payload Engineering Integration & Test (PEI&T) project. The annual budget is in the \$4-6M range, supporting ~10 staff working on: Systems Engineering, Integration & Test, Radiation Effects, Reliability Assessment, and Environmental Testing. Full listing at:

www.linkedin.com/jobs2/view/70716860?trk=eml-jymbii-organic-job-title&refId=1cccad81-c3c1-40a9-af22-5f4d895825df&midToken=AQGiiTIHXAyIhw

#### **September Bylaws-Revision Passes** Bob Pierson, ATA

On-behalf of the INCOSE Enchantment Board of Directors (to be read in as officious a tone as possible).... The amendment, being duly proposed by a majority of the Board of Directors (per Bylaw XV-1) and submitted by written ballot to the entire membership for approval (per Bylaw XV-2), has received unanimous support, exceeding the required 2/3 majority of Yes votes (per Bylaw XV-3), with a quorum that exceeded 20% of the

membership (per Bylaw XV-4). Therefore the Bylaws of the International Council on Systems Engineering Enchantment Chapter are amended as proposed. The Bylaws are available on the Chapter website at www.incose.org/enchantment under the About tab.

Per Bylaw XV-5, the Board of Directors, or its appointed Bylaws Committee, shall complete the next review of the Bylaws in 2019.



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### Your Chapter President is Running for 2016 INCOSE President-Elect

Rick Dove, Paradigm Shift International

If you see value in the vision below, please vote accordingly; but in any event, please vote for your association leadership.

#### Vision

Synergy is a word that has lost its meaning. It is often used to suggest benefit from the mere presence of ingredients, when there is neither recipe nor infrastructure for causing and sustaining a synergistic reaction. Real synergy is an emergent phenomenon, one that fuels itself, somewhat like a nuclear reaction.

The vision I have for INCOSE is one of catalyzed and sustained synergy that results in compelling membership benefit – for members of all kinds and geographic locations. This is not said wishfully, but rather with a passion pursued twice before to success and eager for a new challenge.

The quality of the INCOSE experience for each of us, and the assets we develop for this professional society, are both a function of the depth and breadth of active membership engagement. The percentage of members that attend chapter meetings, from anecdotal inquiry, appears to be on the order of 20% at best. The percentage of members that actively engage in working group projects and activities appears to be considerably less. Not a surprise. Rather an opportunity for valuable improvement.

We are a systems engineering society. This society, as a functional operating entity, should be designed and operated as an engineered system. Typically that begins with understanding requirements. The requirements I am interested in are those that will compel member-valued engagement, attract new members, and produce indemand INCOSE working-group products and activities. Requirements of this ilk go beyond functional capabilities. These requirements must identify and address the factors that impede and encourage embraceable sustained member engagement.

Working groups and Chapters are the engines of value delivery. Some do better than others, and the better ones could do better. We need to understand membership and leadership engagement motivation, facilitate that engagement with an infrastructure that carries water, and get out of the way. Years of INCOSE Chapter and

Working Group leadership experience is marked in my memory more by infrastructure impediment than enablement. We need to discover, understand, socialize, and support embraceable and open operating principles – principles which make interaction with this society an enjoyable and productive experience – principles which guide an infrastructure design that enables and facilitates both discipline and professional development.

Funding more staff and world-class infrastructure designers and developers could help, but that cost requires more income. More income is currently tied to individual and Corporate Advisory Board (CAB) membership dues. Raising dues without raising value runs the risk of counterbalancing attrition. An embraceable infrastructure would increase engagement, in-demand generated product, membership growth, and income. But – how do we close the gap between what is needed and what is affordable?

We *are* systems engineers. We *have* the skills to do this. There *are* compelling value propositions to support the doing of this. What is needed is an appreciation for and focus on INCOSE as infrastructure.

If elected, I will pursue, with both experience and passion, the realization of this vision: INCOSE as an infrastructure system – one that enables and facilitates, world wide, the generation of compelling values to individual and organizational membership.

#### **Biography:**

Rick Dove has an independent and entrepreneurial background with founder and management experience in all C-level positions, and has dispatched a variety of interim executive problem-solving and program-management assignments in large organizations.

He was co-inventor in the '80s of the first deployed electronic postal metering device at Friden/Alcatel, where he led both its initial engineering and subsequent market introduction that established this now ubiquitous technology world-wide.

In the late eighties he led the development of the first research agenda for the National Center for Manufacturing Sciences, and organized its collaborativeconsortia research working group structure, still in operation today. He was co-PI on the 1991 Lehigh study funded by the US Department of Defense that introduced the concepts of agile systems and enterprises, and led the subsequent DARPA-funded research during the nineties that established basic system fundamentals for agile systems of all kinds. In this latter capacity, as director of Strategy, he formed and led the industry collaborative working group structure that engaged 250 organizations and some 1000 people in working group activities over several years.

He is CEO/CTO of Paradigm Shift International, an applied research firm specializing in agile systems concepts and education, and leads agile self-organizing system security research and development on US DoD funded projects. Rick is an adjunct professor at Stevens Institute of Technology, where he develops and teaches basic and advanced graduate courses in agile systems and systems engineering.

He is author of Response Ability – The language, Structure, and Culture of the Agile Enterprise, and Value Propositioning – Perception and Misperception in Decision Making.

Rick joined INCOSE in 2001, has been on the Board of Directors of the INCOSE New Mexico Enchantment Chapter since 2005 and Chapter President in 2015, and founded and chairs the INCOSE working groups for Systems Security Engineering and for Agile Systems and Systems Engineering. He holds a BSEE from Carnegie Mellon University.





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### **Critical Infrastructure Protection & Recovery Working Group**

Mike deLamare, Bechtel and Chair, CIPR Working Group

INCOSE seeks to answer the call for help to resolve complex systems issues of national and international importance.

When approached by InfraGard to help address threats to critical infrastructure, we chartered the Critical Infrastructure Protection and Recovery (CIPR) Working Group in June 2015. (InfraGard is a 501c(3) chartered to provide a partnership between industry and the FBI, <a href="www.infragard.org">www.infragard.org</a>).

The purpose for the CIPR Working Group (WG) is to provide an international forum for the application, development and dissemination of systems engineering principles, practices and solutions relating to critical infrastructure protection and recovery against manmade and natural events causing physical infrastructure system disruption for periods of a month or more.

This WG will provide and support opportunities to exchange knowledge and systems engineering information and solutions within the scope of the CIPR WG, both within INCOSE and with external organizations sharing similar interests and goals.

The opportunities include systems engineering products (e.g. architectures, requirements, IV&V, etc.). This information will be disseminated through publications (papers, articles, briefings) and supporting meetings, conferences, panels, and other means.

Specific areas of knowledge include the following.

- a) The events capable of causing infrastructure disruption for periods of a month or more, to include all aspects of their characteristics and impacts.
- b) The socio-technical factors related to CIPR.
- c) The overarching structure and interconnectedness among the critical infrastructure domains.
- d) The interaction among infrastructure systems under various degraded states of operation.
- e) Possible conceptual and design solutions, and related information.
- f) Strategies for verification and validation of solutions.

Certain manmade and natural events

have a known potential to affect societies at a national, continental or even global scale. Such events can cause extreme harm well beyond those experienced from regional catastrophic events, especially when the effects will take longer than a month to recover. Three examples of events with the potential to cause critical infrastructure collapse include Solar Storms caused by Coronal Mass Ejections (CME), Electromagnetic Pulse (EMP) and Cyber Events (intentional and unintended). The CIPR WG will pursue its goals by addressing these three classes of events, and other classes of events with similar potential, when identified.

The CIPR WG will promote and apply systems engineering principles with emphasis on policy, analysis and concepts useful to understand, protect and recover existing operational infrastructure, and to provide strategies, standards and concepts for more resilient approaches. It will promote and perform activities supporting the stated goals.

The critical infrastructure domains addressed by the CIPR WG include the following. Other domains may be addressed as the need is identified. Chemical and other industrial bases, Communications, Electrical & Energy production and distribution, Emergency Services, Financial Services, Food and Agriculture, Government Services & Facilities, Healthcare and Public Health, Information Technology, Nuclear Reactors, Materials, and Waste, Transportation, Waste storage, treatment and distribution, Waste handling and disposal (water, refuse, hazardous), Society at large.

The CIPR working group is very active in promoting collaboration across industry and with government. Three INCOSE-involved conferences are in development. The EnergyTech 2015 conference

(www.energytech2015.com) will take place Nov 30 to Dec 2, 2015 in Cleveland OH. An impressive collection of keynote speakers and paper presentations and panels has been set. This conference is collaboration among INCOSE, NASA, IEEE and InfraGard. Next is the SEDC conference (http://www.sedcconference.org) set for Mar 31 to Apr 2, 2016 in Chantilly, VA. This conference is hosted by the INCOSE D.C. chapter, and is fully dedicated to CIPR topics. The call for paper is in progress. The third conference is the INCOSE 2016 symposium is in Edinburgh. We are currently seeking papers and panels.

The CIPR working group is seeking new members for the US and international groups. We are also seeking collaboration with other INCOSE working groups, and with individuals and groups external to INCOSE with a passion to see the CIPR solutions advance for the sake of civilization.

The CIPR WG will endeavor to integrate among governmental, business and industry organizations and societies to define and promote strategies and solutions, while helping preserve intellectual property and sensitive information from improper disclosure.

A copy of the working group charter can be obtained at <a href="http://www.incose.org/docs/default-source/wgcharters/critical-infrastructure.pdf?sfvrsn=6">http://www.incose.org/docs/default-source/wgcharters/critical-infrastructure.pdf?sfvrsn=6</a>.

To participate with the CIPR WG and for more information, please contact any of the CIPR Working Group chairs, shown below.

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Mike deLamare, ESEP, <u>madelama@bechtel.com</u>
Loren (Mark) Walker, ESEP, <u>loren.walker@bct-llc.com</u>
John Juhasz, CSEP, telepath.juhasz@yahoo.com

**CIPR Working Group Chairs** 



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### The Correlation Between Arts and Crafts and a Nobel Prize

Slashdot September 12, 2015—The stereotype of the scientist or engineer is that he prefers facts, reason, and objectivity over more artistic pursuits. But the Priceonomics blog points out an interesting correlation: "the more accomplished a scientist is, the more likely they are to have an artistic hobby." It continues, "The average scientist is not statistically more likely than a member of the general public to have an artistic or crafty hobby.

But members of the National Academy of Sciences and the Royal Society — elite societies of scientists, membership in which is based on professional accomplishments and discoveries — are 1.7 and 1.9 times more likely to have an artistic or crafty hobby than the average scientist is.

And Nobel prize winning scientists are 2.85 times more likely than the average scientist to have an artistic or crafty hobby." Is this more evidence that we in the science and tech fields undervalue art and pure creativity?  $\infty$ 

### The Magic of Systems Thinking

Rick Dove, Paradigm Shift International, Pet Peeve Department

Ever taken a systems thinking class – taught by a respected systems thinker? Did they really teach you *how* to think, or rather how to apply tools that they have found useful? If you are a natural systems thinker, tools can be useful to organize

your thoughts, but they won't teach you *how* to think.

The how part seems to be summed up as *think holistically*.

But how do you develop that insightful magical capability, if it isn't already there, or if it is repressed?

The article above on the effects of arts

and crafts as side pursuits shows one path of actionable development.

A <u>TED Talk</u> by Emilie Wapnick shows another path, for those of you with some innate capability that has been drummed out of you, or squelched by a society that asks us to pick a lane and stay in it, to specialize.  $\infty$ 

### **Agile is Dead—Long Live Agility!**

Excerpted from Mar 4th, 2014 Dave Thomas (Blog) at: http://pragdave.me/blog/2014/03/04/time-to-kill-agile/.

Thirteen years ago, I was among seventeen middle-aged [software engineers] who gathered at Snowbird, Utah. We were there because we shared common beliefs about developing software, and we wondered if there was a way to describe what we believed. It took less than a day to come up with a short list of values. We published those values, along with a list of practices, as the Manifesto for Agile Software Development.

[But since then] The word "agile" has been subverted to the point where it is effectively meaningless, and what passes for an agile community seems to be largely an arena for consultants and vendors to hawk services and products.

I think it is time to retire the word "Agile." I don't think anyone could object to a ban on the word when it is used as a noun. That's just plain wrong. "Do Agile Right" and "Agile for Dummies" are just two of the innumerable attacks on the English language featuring the word. They are meaningless. *A gile* is not a noun, it's an adjective, and it must qualify something else.

But, beyond the grammar problem, there's a bigger issue. Once the Manifesto became popular, the word *agile* became a magnet for anyone with points to espouse, hours to bill, or products to sell. It became a marketing term, coopted to improve sales in the same way that words such as *eco* and *natural* are. A word that is abused in this way becomes useless—it stops having meaning as it transitions into a brand.

#### **Back to the Basics**

What to do:

- Find out where you are
- Take a small step towards your goal
- · Adjust your understanding based on what you learned

• Repeat

*How to do it:* 

When faced with two or more alternatives that deliver roughly the same value, take the path that makes future change easier. And that's it. Those four lines and one practice encompass everything there is to know about effective software development. Of course, this involves a fair amount of thinking, and the basic loop is nested fractally inside itself many times as you focus on everything from variable naming to long-term delivery, but anyone who comes up with something bigger or more complex is just trying to sell you something.

All of these sentences are imperative—they are based on verbs telling us what to do and how to do it. And that leads me to my suggestion. Let's abandon the word agile to the people who don't do things. Instead, let's use a word that describes what we

Let's develop with agility

- You aren't an agile programmer—you're a programmer who programs with agility.
- You don't work on an agile team—your team exhibits agility.
- You don't use agile tools—you use tools that enhance your agility.

It's easy to tack the word "agile" onto just about anything. Agility is harder to misappropriate. Ultimately, what we do trumps what we call it. But good words help us communicate effectively. We've lost the word agile. Let's try to hang on to agility. Let's keep it meaningful, and let's protect it from those who would take the soul of our ideas in order to sell it back to us.

Dave's not alone among the original Manifesto authors calling for a return to their intent. See what Andy Hunt has to say at: <a href="http://blog.toolshed.com/2015/05/the-failure-of-agile.html">http://blog.toolshed.com/2015/05/the-failure-of-agile.html</a>

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#### Resources

A year ago Hoover Institution interviewed David Kelley, father of Design Thinking, professor of Stanford's Hasso Plattner Institute of Design, and founder of

IDEO. Here is where you'll hear about the thinking behind Design Thinking, rather than how the proceduralists would have us turn a crank.

Dynamite presentation as Floyd Marinescu shares how the virtual teams behind InfoQ.com and QCon are run; processes, tools, & mindset needed to succeed in a completely virtual work environment that delivers happiness and alignment. Each practice is explained in the context of how it fosters purpose, autonomy, mastery, and a sense of progress.

New Chapter Members Ann Hodges, Sandia National Labs

Enchantment Chapter now has 103 active members. We welcome the following new regular members:

> Marie Elena Kidd Sandia National Labs Aaron Niese Sandia National Labs Anthony Nweke (No listing)

We welcome the following new student members:

Lorenzo Gutierrez Northwestern Jagadish Thimiri Mallikarjan University of Texas El Paso Maria Hernandez University of Texas El Paso Saurabh Nayyar University of Texas El Paso Jennifer Mendez University of Texas El Paso University of Texas El Paso Alejandra Gallegos Sai Dhiresh Kilari University of Texas El Paso Juan Saavedra University of Texas El Paso Edgar Chong University of Texas El Paso Aileen Tapia University of Texas El Paso

An excellent presentation by Olivier (Oli) de Weck at the 2015 Project ARA Developer's Conference, on the fundamentals of modularity, and the application of modularity in Google's Project ARA modular phone. Oli is an MIT professor, IN-COSE Fellow, and the editor of the IN-COSE Systems Engineering Journal.

A TED Talk by Bill Gross, founder of Idealab, reveals the single biggest reason why startups succeed. He got curious about why some succeeded and others failed, so he gathered data from hundreds of companies, and ranked each company on five key factors. The results surprised even him. and are applicable to a much broader range of initiatives than startups.

### **Connect to Your Community of Practice**

Chapter meetings with a focus on systems engineering are held monthly on the second Wednesday, except when social events occur, with mingling, dinner, and often a speaker chosen for enjoyment by systems engineers and guests alike.

Monthly meetings feature speakers from out-of-town as well as local subject matter experts on topics of relevance.

On occasion special facility tours are arranged, sometimes as the monthly meet-

Chapter meetings begin at 4:45 pm.

After chapter news, announcements and introductions, the presentation and discussion generally lasts until 6:00 pm, carried on GlobalMeet for anybody to access who can't attend in person.

Tutorials with coverage on topics of interest are arranged approximately twice a year. Delivered by experts in the field, tutorials range from 1/2 day to day+ durations, and generally involve a tuition.

Mix with people who have the same ing, and other times on a separate schedule. professional interests as you do, but with a diversity of perspective beyond daily

workmates. It comes in handy when you need help or answers to questions outside your accumulated experience, need a connection at another organization, or simply want some mind stretching thought.

Meeting announcements, event notices, and GlobalMeet links routinely go to all INCOSE members within the Chapter's geographic territory; as well as to names on a special information list open to one and all. Sign up for the information list with a request to the Chapter secretary listed below.

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