



December 2010
Volume 2, Issue 4

North Coast System Engineer

THE PRESIDENT'S CORNER



Dennis Rohn

As I sat trying to think about what to write about in this article, I began thinking about the word membership. What does membership mean to you? Or more specifically, what does membership in the INCOSE Cleveland-Northern Ohio Chapter mean to you? For some, it may be a sign of prestige; being able to say that you are a member of the organization. For others, it may be an entry on their resume to help them get, or keep, a job. It may be a way to develop a competency to help in their career. It may be a way to share experiences. And there are probably many more. One on-line dictionary defines membership as: "The state of being a member." Using the word "state" makes membership sounds very static, but I think "being" a member implies so much more. Christianity teaches that we are all members of Christ's body and if one of us doesn't perform their function, the whole body

suffers. I feel that membership in a group like INCOSE is a lot like that. Unless each of us gets involved, even in some small way, the whole organization is affected. Is it catastrophic? Well maybe not until some threshold is reached, but it certainly holds us back from being a better organization. I'm also reminded of a tree. Leaves are part of the tree, but both are dependent upon one another; the tree provides water and nutrient to the leaf and the leaf creates food that it provides back to the tree to help other parts of the tree to grow. If flow to the leaf is interrupted, the leaf will wither and die, and if the flow to the tree is interrupted, the tree will get less food that it can use and would ultimately die if too many of these flows were interrupted.

As incoming chapter president, I will commit to you that I will do everything I can to help keep the flow going in both directions. But I need each and every one of you to individually help to keep the flow to and from you going as well. So I ask you to get involved. There are many opportunities to do so: committee leads are always looking for help, you can attend chapter meetings, you can present at a chapter meeting, you can attend a Board of Directors meeting, you can write an article for one of these newsletters, you can get involved at the International level, or you can simply provide feedback on how we are doing and how the chapter can better serve you. I know we all have other commitments and our lives are so hectic these days, but every little bit can help.

As we move in to our fourth year of operations, I feel that we have finished the forming and storming period of the organization and I would like to see us move in to the norming period. The Board of Directors has spent some time over the past few weeks trying to



develop an operating plan next year so that the mundane things are taken care of easily and we can focus on growing and developing the chapter further. One of my focus areas will be Commercial outreach. Please take a look at the article elsewhere in this newsletter written by Paul Desantis focusing on how to develop an approach to this. After reading it, I'd ask that you provide your thoughts and ideas on how we can move forward in this area.

I look forward to this coming year and working with all of you to help you and the chapter grow. If you have any, thoughts, ideas, or other feedback, feel free to drop me a note at dennis.rohn@incose.org. Have a Merry Christmas and Happy New Year.

Did You Know ...

Did you know that the Chapter is an associate member of the Cleveland Engineering Society? Among other benefits, this provides discount member rates to all Chapter members for all Cleveland Engineering Society programs, events, conferences and courses. More information can be found at their website: <http://cesnet.org/>.

Do You Need A Systems Engineer?

Our INCOSE C-NO Chapter is considering developing a user web-based service to help its members post a resume or find a position in systems engineering. Obviously our resources are limited when compared to some services such as Monster.com. But, through a suggestion made by one of our members, the chapter leadership is considering setting up a web page where members can both post resumes and also look at others' resumes should they need a systems engineer for their company. The web-based system would simply be a site to post and browse, probably on a public page. If you are interested in this service please let us know. Many aspects would need

to be considered: would we allow companies to post positions needed(probably)? Privacy? (probably not). Anonymity? (maybe, if some automated approach could be developed). If you have ideas or expertise in doing this we would really like to hear from you. If there is some interest expressed in this, the C-NO Chapter is willing try a 6-9 month trial to see if it is useful.

Chapter Election Results

We would like to congratulate the Chapter officers for 2011. Alan Richard and Cody Farinacci return as our Treasurer and Secretary respectfully. Joel Knapp was elected as Vice President and Dennis Rohn moves into the President position per the by-laws.

Editorial for Using BPM to Grow Corporate Membership

by Paul DeSantis

Introduction

Business processes are the work, procedures and rules required to complete business tasks. Tasks respond to business events (e.g. a manufacturer fulfilling a sales order.) Tasks also could accomplish a business goal, such as our Chapter's goal to increase corporate membership.

Managing these processes is called Business Process Management (BPM), which for many years had many different approaches. Some were very quantitative and more operations research. Recently the business industry collaborated on producing a common BPM framework, and like SysML the Object Management Group (OMG) became the standardizing organization. The result is OMG BPM. Although its focus is on building information systems, it still provides techniques for discovering, defining, improving and controlling processes for

a business to yield positive outcomes, which we need to create and execute our Chapter's corporate recruitment plan.

BPM concepts are outlined below. Not all concepts are listed; especially those unique to developing information systems. Readers will notice how BPM brings together a collection of industry proven practices to create a comprehensive framework.

Business Motivation Model

Provide structure for developing, communicating and managing business plans in an organized manner. Model consists of four areas.

1. Ends: What an organization wishes to achieve (goals and objectives).
2. Means: Things an organization will employ to achieve Ends (strategy, tactics, and policies).
3. Influencers: Positive and negatives effects on the Ends and Means.
4. Assessments: Assessments made about the impacts of Influencers on End and Means (e.g. SWOT analysis).

Organizational Structure

- RACI Model is a tool used to identify roles and responsibilities during an organizational change. Also, describes what has to be done and by whom to make a transformation process happen.

Business Process Modeling

- Business Process Modeling Notation discovers, designs, documents and manages processes. (Note: This modeling language uses a Business Process Diagram that is similar to SysML Activity Diagrams.)

BPM Knowledge

- Key Performance Indicators measures performance using financial or non-financial metrics.
- Business Activity Monitoring measures key performance indicators in real-time. This allows problems or emerging opportunities to be quickly addressed.

- Balanced Scorecard measures whether the smaller-scale operational activities of an organization are aligned with the larger-scale objectives (in terms of vision and strategy).
- Benchmarking compares an organization's performance against competitors. Often results in making changes to improve process outputs.

Process Quality and Governance

- Regulatory Governance (in our case INCOSE rules and regulations for Chapters).
- Change Management is about managing people in a changing environment so that business changes are successful.
 - ADKAR Model is a goal-oriented tool to help manage change. The five steps are:
 1. Awareness (of the need to change)
 2. Desire (to participate and support the change)
 3. Knowledge (about how to change)
 4. Ability (to implement new skills and behaviors)
 5. Reinforcement (to keep the change in place)
- Business Process Maturity Model is a reference model for organizing small, evolutionary steps and process innovations into five maturity levels of Initial, Managed, Standardized, Predictable and Innovating. (Note: This reference model is equivalent to CMMI but with a different name.)
- Theory of Constraints is a management philosophy that examines entire system for continuous improvement.
- Six Sigma improves quality of process outputs by identifying and removing causes of defects and variance using the DMAIC methodology.

Business Rules Approach

- Connects an organization's policies and constraints to its informational systems.
- Each rule classifies, calculates, compares and controls a business activity.

Conclusion

Professor Jeffrey Timmons at Babson College wrote in his textbook *New Venture Creation Entrepreneurship for the 21st Century*, "Just because you have a plan does not mean the business will be an automatic success." Timmons also states a business plan is one of the best ways to define the blueprint, strategy, resource and people requirements for a new venture. This is how BPM fits in: To discover, document and manage the processes for executing the business plan. Case in point: Timmons advises not to have *mysterious people* on the team. To prevent this, the BPM Business Process Diagram identifies all people and their assigned actions to complete an activity. Alternatively, we could deploy BPM ADKAR in the business plan as a change management tool for recruiting and retaining corporate members.

BPM will provide our Chapter with an analytical approach to running a corporate recruitment campaign. So when we start marketing Systems Engineering to prospective members in 2011, we will be confident that our approach was well thought out regardless of the outcome.

Bibliography

Timmons, J. and Spinelli, S. (2004). *New Venture Creation Entrepreneurship for the 21st Century*. 6th edition. McGraw Hill Irwin

Visumpoint (2010). *OMG Certified Expert Business Process Management: Business Intermediate Examination*. Atlanta, GA: Visumpoint, LLC.

IW2010

INCOSE's International Workshop is the event of the year for systems engineers to contribute to the state of

the art. Unlike INCOSE's annual International Symposium and other conferences, there are no paper, panel or tutorial presentations. Instead, attendees spend 4 days working alongside fellow systems engineers who are there to make a difference. Systems Engineers at all levels and from all backgrounds are encouraged to engage in working sessions, and contribute their knowledge and experience to take the discipline forward.

IW2011 facilitates working meetings for groups engaged in INCOSE's major projects and in international Standards development, workshops to explore the Systems Engineering challenges in new sectors, opportunities for Chapter leaders to meet and share best practice, support sessions to help you get the most out of INCOSE's shared working environment and a broad range of other technical meetings. Planned sessions and points of contact will be published on the website as these become available, and attendees are encouraged to contact the relevant session leaders before the event for further information. www.incose.org/newsevents/workshop/index.aspx

IW2011 is open to INCOSE members, and non-members are encouraged to join INCOSE prior to the IW. For more information about membership, please visit www.incose.org/membership/membershiptypes.aspx or email info@incose.org.

We would like to congratulate Dan Gauntner the winner of our IW2010 contest.

2010 Programs in Review

Over the past year we've had the honor of hosting a number of interesting speakers on a wide variety of topics. We began the year with NASA's Eric Baumann providing us an overview of the Ares rocket Purge and Hazardous Gas system. I provided an overview of how we did interface management within the constellation program.

Richard Stuebi gave us an excellent overview of the lake Erie Windfarm project and Paul Mathews discussed Design of Experiments and how it could be useful in supporting many SE activities. I think the capstone of our program year was having Eric Honour present his findings on the return on investment of systems engineering. We wrapped up the year with a social gathering at the usual spot in Berea. All in all I would say a pretty successful year.

Going forward into 2011 we are developing a program plan with 8-10 program events. The details are still firming up but we hope to have several chapter members share with us a systems engineering topic that reflects one of their interests or is important in their daily practice. In addition we expect representatives from IBM-Rhapsody to provide a demo/case study on using Rhapsody as well as a discussion on writing better requirements. We also hope to have a collaborative event later in the year with the Great lakes Science Center but that is still in work and we will wrap up with a year-end social as usual. All programs are still being targeted for the third Tuesday of each month and a more definite schedule will be distributed after the first of the year.

As we transition into 2011 I will be stepping down from the chairmanship of the program committee and turning that over to Tony Rus. I will continue to support the program committee as needed over the next year. Tony has a great deal of experience working with other organizations and will be more active in promoting our regular events.

As I wrap this up I would like to wish all our members all the best in the new year.

Joel Knapp

2011 Chapter Officers:

President Dennis Rohn
dennis.rohn@incose.org

Vice-President Joel Knapp
joel.knapp@incose.org

Secretary Cody Farinacci
cody.farinacci@incose.org

Treasurer Alan Richard
alan.richard@incose.org



Attendees of our year end Chapter social



December 2010

Company Name
Number Street Address
City, State Postal Code
Country

BULK RATE
US POSTAGE
PAID
CITY, STATE
PERMIT NO. 000

ADDRESS CORRECTION REQUESTED

Subscriber Name
Number Street Address
City, State Postal Code
Country

