CPCU SOCIETY INSURING YOUR SUCCESS

Information Technology Interest Group

Cutting Edge

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Growing Season

by Cory L. Heim, CPCU, CLU, ChFC

Cory L. Heim, CPCU, CLU, ChFC, is a manager in the Systems Department at State Farm Insurance Companies in Bloomington, Ill. Cory held IT management responsibilities in electronic commerce and various areas of information security over the past 12 years. He now manages a unit providing border protection and secure e-mail services. Experiences before joining State Farm included serving as an audit manager for a global public accounting firm. Cory is active in the United Way of McLean County, Ill., having served as chairman of the Community Impact Cabinet and as a member of the board of directors. In addition to serving as chair of the Information Technology Interest Group Committee, he is a member of the Central Illinois Chapter's New Designee Committee.

Living in central Illinois, I cannot help but notice we are in the growing season. I pass by a field of corn on my way to and from work and notice how the corn grows taller almost by the day. When the right nutrients (good soil, fertilizer, water, and sunlight) are present, it is amazing how quickly corn grows. It is also a growing season of sorts for the Information Technology (IT) Interest Group and Committee. Several of the committee's goals center on growth, including growing the number and defined roles of committee members, the engagement of IT Interest Group members, and ultimately the value provided by the IT Interest Group to its members and the CPCU Society.

The IT Interest Group Committee needs to grow in both number and maturity of members' roles to better facilitate opportunities for IT Interest Group and CPCU Society member engagement. The committee took the first step toward that growth at the Leadership Summit in April by aligning committee members with specific roles, including the newsletter, website, LinkedIn page, Circle of Excellence, and new committee member recruitment. Please visit the IT Interest Group website to see the committee members who are aligned with each of these roles.

Additionally, a number of important roles within the committee still need to be filled. These include program development (webinars, seminars, and other programming) co-leads, a newsletter co-editor, and a website co-lead. If you have an interest in joining the committee in these or other roles, please contact any committee member. Candidates must be able to attend the Leadership Summit and Annual Meeting to be considered for committee membership. Are you interested in regularly participating in the work of the committee but unable to attend the two meetings per year? If so, ask a committee member about becoming an affiliate member of the IT Interest Group Committee.

While it is the responsibility of IT Interest Group Committee members to facilitate delivery of programs, publications, and content, the committee needs the contributions of IT Interest Group members to do so. The real strength and value of the IT Interest Group lies in the knowledge and experience of its

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individual members. Your contributions are needed to provide:

- Content for IT-related webinars and CPCU Society annual meeting seminars
- IT content to integrate with the topics of other business-related seminars
- Articles for the *Cutting Edge* newsletter
- Content for the IT Interest Group website
- Knowledge sharing and collaboration with other IT Interest Group members through the group's future LinkedIn presence

IT Interest Group Committee members are working diligently to grow methods to increase IT Interest Group members' awareness of opportunities to contribute their knowledge and expertise. Through the active engagement of its members, the IT Interest Group will grow the value it provides. Please join us during this "growing season" in contributing the "nutrients" needed to grow the IT Interest Group's value to its members and the CPCU Society! ■

Tech Bits and Bytes

Business and Technology Trends

by Celeste Allen, CPCU, CLU, ChFC, FLMI

Celeste Allen, CPCU, CLU, ChFC, FLMI, has 28 years' experience in the insurance industry, having worked in claims, underwriting, business analysis and information technology. She currently is a manager with State Farm. Celeste's leadership experiences led her to strengthen her community service participation and make a difference in the lives of young people in her community, including those at-risk. Celeste also is a member of two major public service organizations. She earned a bachelor's degree in psychology from Temple University, a master's of business administration degree from Illinois State University and a master's degree in executive leadership from the University of Nebraska–Lincoln.

Gartner Private Cloud Trends

Gartner, Inc., developed five top trends from a private cloud perspective, and they entail a tenfold increase in private clouds, an increase in hybrid private plans, an increase in vendor support of private clouds, an increase in open-source solutions and virtualization, and increased and in-depth understanding of business requirements so as to elevate the success rate of private cloud implementations.[1]

Service-Oriented Architecture (SOA)

Maloy Pataik and Raksha Kadam's article "SOA: A Fresh Approach"[2] was a very interesting presentation. The authors state that, in its introductory phase, service-oriented architecture (SOA) was intended to present architecture with a model in which business users to create application functionality through business processes hosted on an enterprise service bus. They advise us to be aware of legacy encapsulation masquerading as an SOA strategy. The essence of SOA should be to introduce simplicity and facilitate a focus on delivering core capabilities while eliminating redundancy. Those choosing to adopt SOA should know what is needed and obtain SOA solutions properly scaled and aligned with those needs, implement and rigorously adhere to governance, adopt Information as a Service to govern access to a variety of data, and use and build the appropriate infrastructure before embarking on costly projects. The authors advocate the establishment of two enterprise buses—one for true enterprise services and another for specific systems such as legacy systems. The long and short of it is, as your organization looks for solutions to integrate apps across and within platforms, understand the true intent of SOA, do your homework in terms of its applicability to your shop, and develop an SOA solution geared toward success (avoid pitfalls of previously failed efforts). ■

Footnotes

(1)Thomas J. Bittman, "Private Cloud: Top 5 Trends," May 11, 2012, www.information-management.com/resource-center/?id=10022451 (accessed May 12, 2012).

(2) Maloy Patnaik and Raksha Kadam, "SOA: A Fresh Approach," February 17, 2012, www.information-management.com/newsletters/SOA-cloud-as-a-service-ROI-SLA-10021971-1.html (accessed February 20, 2012).

Hadoop: Does it Warrant Whoop! Whoop! Whoop!

by Celeste Allen, CPCU, CLU, ChFC, FLMI

Hadoop is a hot topic because of its ability to manage and analyze vast amounts of unstructured data (such as web content, e-mails, and social media), as opposed to conventional relational databases, which store data with many petabytes. (A petabyte is equivalent to 1,024 terabytes.) The amount of data projected to be created and stored in 2011 was 1.8 zettabytes per International Data Corporation (IDC) Digital Universe, an amount equivalent to more than 250 billion DVDs, per CICSO. This has significant implications for insurance and banking firms from both business transactions and social media perspectives. In 2011, Yahoo! used 18 Hadoop systems operating across 42,000 servers to process and filter e-mail for its subscribers, manage web advertisements, and index Web content.

Hadoop is an offshoot of Apache Nutch, or Nutch, an open-source search engine. Doug Cutting worked on Nutch from 2002 to 2005, aiming for it to handle more than a billion Web pages; this was beyond the capacity of a single server, thus warranting a distributed configuration. Initial experimentation resulted in running the engine over four servers and then growing it to run across hundreds, and later thousands, of servers. Google published two papers over a two-year time frame (approximately 2004 to 2006) that served as key turning points in Hadoop's development by outlining how automated scaling works without adding additional people into the mix.

Cutting joined forces in 2005 with Michael Carafella, then an assistant professor at the University of Washington, to focus on how to address points of failure in Hadoop. Cutting was approached by Yahoo! in 2006 to team up with a cadre of Yahoo! Engineers, including Eric Baldeschweieler, to process the entire Web (tens of billions of pages). The newly formed Yahoo Hadoop group won an international competition in 2008 for having the fastest system with the capability of sorting a terabyte of data. They were on the map.

Companies such eBay, Walmart, Amazon, and the Walt Disney Corp. use the Hadoop software to analyze data from their social media sites and better meet the needs of their customers as well improve their marketing and advertising efforts. On the banking end, JPMorgan Chase and several banks are using Hadoop to bridge unstructured and structured data so as to detect fraud activity, particularly in sub-prime market mortgage-loan servicing, as well as in credit card and wire transactions.

There are a number of caveats, starting with the newness of the platform; security issues in the form of access control and data management; the potential to flag legitimate activity; the ability to find an adequate number of skilled resources; the need to assess the proper technology to use, depending on the type of data being analyzed; significant analytical skills and training needed to become familiar with the software; lack of a sufficient number of vendors to provide support; and the need to assess the risks of using the application for small, as opposed to critical, applications.

Capabilities appear to far outweigh risks in terms of the software's ability to handle and store inordinately large volumes of both structured and unstructured data—data heretofore too expensive to retain, such as logs and social media data—run on an inexpensive infrastructure; easily scale, as needed, because it can accommodate data across thousands of distributed nodes; and quickly redistribute work when nodes fail.

Growth opportunities exist, as people learn to leverage the full range of capabilities of the software.

Cutting left the Yahoo! team in 2009 to join Cloudera and further develop capabilities and commercially distribute Hadoop, while Baldeschweiler and a core group from Yahoo! developed a Yahoo! Spinoff, Hortonworks, to focus on performance improvement, ease of installation and usability, and evolution of the core design.

Elephants never forget, so from Cutting's use of his daughter's favorite stuffed elephant (Hadoop) to Dr. Seuss' elephant Horton (for HortonWorks), the significant animal named Hadoop that allows us to use, garner, and analyze vast amounts of data across thousands upon thousands of nodes remains unforgettable in its impact on Big Data. In my book, Hadoop definitely warrants whoop! whoop! whoop! ■

References

Babcock, Charles, "Hadoop Big Data Startup Spins Out of Yahoo," InformationWeek, June 29, 2011, InformationWeek.com (accessed October 17, 2011).

Bednarz, Ann, "Rise of Hadoop Challenging for IT," *NetworkWorld*, February 13, 2012, pp. 31–32.

Furrier, John, "Extraction Point with John Furrier—Doug Cutting, Founder of Hadoop," YouTube post, August 8, 2011.

King, Rachel, "Getting a Handle on Big Data With Hadoop," Business Week.com, (accessed September 12, 2011).

Quittner, Jeremy, "Search Engine Technology Helps Banks Spot Fraud," AmericanBanker.com, September 1, 2001.

Vijayan, Jaikumar, "Hadoop Works Alongside RDMS," *Computerworld*, vol. 45, issue 15, August 22, 2011, p. 5.

Vijayan, Jaikumar, "Hadoop Is Ready for the Enterprise, IT Execs Say," Computerworld.com, November 21, 2011.

Weiss, Todd R, "Look Before You Leap Into Hadoop," Computerworld.com, February 27, 2012.

The Need for Self-Service Business Intelligence (BI)

by Celeste Allen, CPCU, CLU, ChFC, FLMI

Years ago, an information technology (IT) professor advised his students that business drives IT. As the only IT person in a classroom of business professionals, I nodded, dutifully, but inside I was screaming, "Oh, give me a break." Time has passed and I have come to understand and support his stance, particularly when we enter the realm of self-service.

Boris Evelson points to the fast and continuous pace of change of business requirements and how the waterfall approach, traditionally used for software development, no longer meets the needs of business intelligence (BI) users. The waterfall approach is a linear process, consisting of a series of stages (see exhibit) that must be completed in sequence. If a problem is noted at any stage in the process, then you must return to the first stage, analyses, and repeat all the stages in the process. Today's business users need functional software prototypes throughout the develop process to evaluate whether the software meets their needs. To accommodate this need, the "us versus them" mentality that lingers between IT and business professionals must be set aside and a more collaborative approach must be used for developing and implementing successful BI solutions.

Evelson states that "… in an ideal BI environment, 80% of all BI requirements should be carried out by the business users themselves". The software product developed for a particular business user must include a working graphical user interface (GUI)—an intuitive, visual presentation enabling users to interact with a computer–that will appeal to several generations in the workplace; provide on-demand advanced ad hoc capabilities to generate metrics, reports, and similar tools; provide ample opportunity to "play" and become familiar with the software application; include an engine that can handle large quantities of various raw data; enable on-demand implementations in the production system, and promote collaboration between business users and IT staff.

Peter Evans labels "big data" as "one of the biggest disrupters for the way companies have handled data in the past 20 years." Big data refers to the vast quantities of varied types of structured and unstructured data (e-mail, text messages, clicks, videos, audio files, log files, and so forth) that barrage all types of technological devices. Evans points to big data as a driver for creating self-service BI. Evans notes that trends, such as billions of dollars of transactions attributable to the financial markets that must be efficiently analyzed, along with new technologies for handling big data and adding value to it, such as Hadoop, reinforce the need for self-service BI. The trend to elevate data managers to strategic decision-making roles within companies complements the development of self-service BI. Other factors accelerate the need to develop self-service BI, such as these:

- The dismal, estimated ten percent success rate of BI initiatives
- The pressing need for nimble, on-demand BI tools
- The need for centralized/shared data governance—control over data quality, management, processes, and so forth
- The need to collapse silo operating mentalities in which departments horde information rather than share it with others for efficient operation

Self-service BI provides a means to effectively meet enterprise and industry needs, while managing the thrust and challenges of big data. ■

Creating the Vision for Data Governance—"Do You See What I See?"

by Anne Marie Smith, PhD

Anne Marie Smith, PhD, is principal consultant with more than twenty years' experience in enterprise information management. She is a certified data management professional (CDMP) and is a frequent speaker and author on data management topics.

Anne Marie has consulted in areas such as enterprise information management assessment and program development, data governance, data warehousing, business requirements gathering and analysis, metadata management, information systems planning, and EIM project management. She has taught numerous workshops and courses in her areas of expertise.

Anne Marie holds a bachelor of arts degree and a master of business administration in management information systems and risk management degree from La Salle University, and she earned a PhD in MIS at Northcentral University. She serves on the faculty of Northcentral University as an adjunct assistant professor of MIS. ASmith@alabamayankeesystems.com

At the highest level, data governance is concerned with the management of data, their availability, currency, usefulness, accuracy, and relationships with other enterprise data. Governance of data is not an IT function, although many technical products and tools are used to administer governance. Data governance is a business responsibility, shared with IT but "owned" by the business entity and instituted across the enterprise. Like any other enterprise effort, successful data governance involves people, processes, tools, standards, and activities that are managed at both strategic and operational levels. And, like any other successful enterprise initiative, data governance starts with a vision, which is communicated and sustained by the enterprise.

Webster defines "vision" as "a thought, concept, or object formed by the imagination; unusual discernment or foresight; the act or power of seeing." With this definition as a basis, we can say that a vision for data governance would include the articulation of what the organization thinks that concept should entail for it, or what it sees as the state to be achieved by the act of governing data. To achieve that end state, it is imperative for the organization to communicate a compelling vision for change, set achievable targets, and contribute sufficient enterprise resources to develop the vision/concept. To be successful, this vision must be commonly understood and supported by the senior management and business sponsors of the data governance initiatives.

Many organizations launch data governance efforts as part of a business-unit or division-level project and do not acknowledge the need for an enterprise approach to managing the common asset, data. This project-oriented approach to overarching programs such as governance can cause the development of multiple initiatives, each with its own set of missions, standards, procedures, policies, and activities, creating a "Tower of Babel" instead of a unified view of data governance. When the organization finally recognizes the need for an enterprise view of data and the need for enterprise governance, all of these disparate governance efforts must be dismantled and replaced, causing confusion and conflict within the affected areas.

The first step in every successful governance effort is the establishment of a common vision and mission for data and their governance across the enterprise. The vision articulates the state the organization wishes to achieve with data and how governance will foster reaching that state. Through the skills of a specialist in governance and using the techniques of facilitation, the senior business team develops the enterprise's vision for data and their governance. All of the subsequent activities of any data governance effort should be formed by this vision.

Visioning offers the widest possible participation for developing a long-range plan, especially in enterprise-oriented areas such as governance. It is democratic in its search for disparate opinions from all stakeholders and directly involves a cross-section of constituents from the enterprise. Developing a vision helps avoid piecemeal and reactionary approaches to addressing problems. It accounts for the relationship between issues and how one problem's solution may generate other problems or have an impact on another area of the enterprise, and it develops a holistic approach to setting goals that will enable the organization to realize the vision.

Creating a vision is a specific step in the planning process and should not be overlooked or shortened. Scheduling the visioning step should incorporate sufficient time for framing issues, eliciting comments through surveys or meetings, recording statements from participants, and integrating them into draft and final documents. Preparation for visioning is crucial and touches on many complex issues. Advance work is essential to give time for staff to prepare the governance vision meeting purpose and agendas, questionnaires, and methods of presentation and follow-up. The visioning program should be carefully scheduled to maximize senior management input and response time and to allow sufficient time for revisions to draft vision statements.

To ensure that all data governance efforts are shaped by the organization's vision, communication of this vision is essential. Every person responsible for creating, managing, or using any data must understand and support the governance vision. Data governance activities should be part of all projects, and measurement of a project's success should include how well the project achieved the organization's governance vision as well as whether the project's timelines were met. Periodic refinement of the vision is an important step, so that the enterprise continues to follow the best governance path as conditions change and new situations develop.

In the final analysis, the best governance programs are those that begin with a clear and achievable vision for data governance—one that is uniformly communicated to the organization, refined as necessary, and incorporated in the enterprise's governance approach. ■

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