

DATA GOVERNANCE

RESEARCH

A BUSINESS DEVELOPMENT EXERCISE

FEBRUARY 2015

CU^{*}ANSWERS
A CREDIT UNION SERVICE ORGANIZATION

Business Development: “Data Governance Research”

February 20, 2015

Assignment to Business Developers:

*Spend one hour researching data governance. Write a 1-2 page document on what was learned, explain how it could be used at CU*Answers or in your specific area in the future. Use a current event/situation and explain how data governance could be used to translate services that you could sell or how it could improve the process.*

Data Governance

“Data governance (DG) refers to the overall management of the availability, usability, integrity, and security of the data employed in an enterprise. A sound data governance program includes a governing body or council, a defined set of procedures, and a plan to execute those procedures.”¹

Initial review of materials suggests that data governance encompasses whatever you need it to – both in scope and in intent. Even the Data Governance Institute is vague on the subject; they indicate that it is an agreed-upon, descriptive system that is contextual, goal-driven, and follows certain principles and attempts to achieve certain general goals, but those “goals and objectives depend on the focus of a particular Data Governance program.”

Here are the goals and principles of data governance in general:

Principles of Data Governance

- Integrity – open debate of needs, constraints, impact, fairness to all stakeholders
- Transparent – clarity to participants on decisions, policies, and processes
- Auditable – documented and procedural
- Inclusive – avoiding gaps (no one is accountable) and mass overlap (too many chiefs)
- Stewardship – defined accountability and responsibility of contributors
- Balance – between IT & business functions, between data creators, keepers, managers, users
- Standardized – across the enterprise
- Managed – proactive & reactive change management, structured use of data and metadata

General Goals of Data Governance

- Improve decision-making
- Increase operational effectiveness
- Protect needs of the stakeholders
- Common approach to data management
- Standard, repeatable process
- Transparency of approach and process
- Reduce cost and increase coordination

What Does a Data Governance Program Look Like?

Data Governance is concerned with the creation of the rules and policies about data, how to regulate data (resolve questions about data), and to create compliance and standardized approaches to data handling. It is done with goals in mind, can start small and scale up, and is need driven (organization is getting too large, too complex, needs standardization/integration, needs to be able to handle compliance or audits).

Boiling It Down

Data governance is creating the structure in terms of people, documentation, and process to ensure that data is appropriate, accurate, complete, and secure.

Sources:

1. <http://searchdatamanagement.techtarget.com/definition/data-governance>
 2. <http://www.datagovernance.com/>
 3. <http://www.microstrategy.com/Strategy/media/downloads/white-papers/Role-of-Data-governance.pdf>
 4. http://www.sas.com/resources/whitepaper/wp_51269.pdf
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What Parts Should CU*Answers Focus On?

1. Procedures & Documentation
2. Data Security and Privacy
3. Regulatory Compliance
4. Data Administration
5. System Administration

How Does This Translate Into the Business Model?

For CU*Answers, data governance serves as a business element in three ways. First, it is a marketing tool. CU*Answers has strong data governance and we can market this as a benefit of doing business with the CUSO. Second, direct products can be generated – policy and procedure documentation for use outside the primary application, checklists, tools to support DG infrastructure/DG process itself. Finally, DG services in the form of reviews/audits, best-practice review and process updates, DG planning.

1. Procedures & Documentation
 - a. Pre-created (provided) documentation that details the policies and procedures regarding data provenance and handling for online clients. This could be similar in form to the ACH policy/procedure docs issued annually by NACHA and TPA.
 - b. “Data Governance Audit” for CU, esp. in-house. Review written policies, compare procedure to stated policy, review backup and retention strategy, provide materials on governance process, retention checklist.
2. Data Security and Privacy
 - a. Review of data security measures – password policy v. practice/enforcement, document application security settings/configs and provide report for inclusion in board packet/provision for audits.
 - b. Review of employee access to data; policies, guidelines provided.
3. Regulatory Compliance
 - a. Most regulatory action can be defined in terms of Data Governance. Frame a regulatory/best practice review in terms of Data Governance (Dodd-Frank, stress-testing, changing regulations, practice review (new uses and exposure for old data), impact of changing technology, quality, availability).
 - b. Provide paid seminars/training on data governance to stakeholders - board of director/management teams (“Data Governance: What You Need to Know as a Board of Director”, etc.).
 - c. Provide panels to *membership* on “Your CU and Data Governance (brought to you by CUA)”

4. Data Administration
 - a. Data Audit – what forms data takes, what happens if it needs to be accessed (all the old paper receipts in the basement dating back to 1997), recommendations on what to store, what not to store (cost of keeping data), risk and liability.
 - b. Review and audit backup policy/procedure, data recovery test/checklist.
5. System Administration
 - a. Documentation on retention
 - b. Audit and update on data purges, splf's/report handling/removal
 - c. Security and data monitoring audits/engagements

Jim Lawrence

I had heard of the term “Data Governance” but assumed it was reserved for conversations in the Records and Information Management circles. As a result of this research project, my understanding of DG has expanded significantly. To begin my research, I first sought some definitions. Here are a few that I found describe it well without excess padding.

Data Governance Defined

- “The mechanism by which an organization ensures the right corporate data is available to the right people at the right time in the right format with the right context through the right channels.”
- “The formal orchestration of people, processes, and technology to enable an organization to leverage data as an enterprise asset.”
- “The process by which an organization formalizes the fiduciary duty for the management of data assets critical to its success.”

In addition to information security and compliance drivers, I discovered that more and more companies are seeking competitive advantage by leveraging data governance to proactively add value to the bottom line. It’s about getting the right information to the right people at the right time and enabling the entire organization to seize new opportunities rather than simply operating in a reactionary way.

And the windows for these revealed opportunities (as well as potential embarrassments) can be very narrow. Businesses need to know what’s happening not just in their own organizations, but also within all of the companies they touch, whether they are vendors, customers or partners. Having real-time access to information is crucial. It is important to know where the data resides and what it is worth, and calculate the probability of risk and cost to the organization in the event that it’s stolen.

The **primary goals** of Data Governance include:

- Increasing consistency and confidence in decision making,
- Decreasing the risk of regulatory fines,
- Improving data security,
- Maximizing the income generation potential of data,
- Designating accountability for information quality,
- Enable better planning by supervisory staff,
- Minimizing or eliminating re-work,
- Optimize staff effectiveness,
- Establish process performance baselines to enable improvement efforts, and
- Acknowledge and hold all gains.

What’s the difference between “data” and “information”?

During my research, I found articles and whitepapers that seem to blur the line between “data” and “information”. Some used the terms interchangeably. Here is a simple yet effective statement that helped me gain clarity between these two related but different objects:

“Information is data placed in context, analyzed, and processed into a consumable resource or asset.”

I learned that more and more businesses are embracing data-governance strategies to manage data (and the information it contains) that serves as the lifeblood of the company. Data has become the raw material of the information economy, and data governance is a strategic imperative.

Data Governance vs IT Governance

I also experienced some confusion while reading authors who swapped IT Governance with Data Governance, since both seemed to articulate a framework for information security. I found this paragraph to help identify the relationship between these two disciplines:

“Data Governance does not replace IT Governance but complements it. To borrow an analogy commonly used by the Data Management community, IT Governance focuses on the pipelines - the organization’s IT infrastructure. Data Governance focuses on the water – the data that flows through those pipelines. IT Governance focusses on defining a portfolio of IT investments, setting performance objectives, and evaluating and managing risk for the IT infrastructure. It ensures alignment of those IT investments with the organization’s mission and business goals, and it evaluates and manages enterprise-wide risks to the IT infrastructure. Data Governance, on the other hand, focuses on creating a context that enables the organization to align data management efforts with business objectives, support regulatory compliance, and manage risks that are specific to the data itself.”

Data Lifecycle

Data Governance kicks in at the source where the data enters the enterprise and continues across the lifecycle as it is processed and consumed to address business needs until it is archived and/or purged. I found that it applies to all business units across all the processes executed. Data Governance has a key role to play across all layers of the architecture:

- Presentation layer where the data enters the enterprise
- Business logic layer
- Integration layer where data is routed
- Storage layer where data finds its home

It is imperative to understand the complete lifecycle of data, from the sources that collect and create data, to the systems that analyze it into useful information, then to the finished reports that people rely on. Participating components of this lifecycle include:

Suppliers: Understand the internal organization and external suppliers that provide information.

Inputs and sources: Understand how data flows by identifying the people and systems that input, supply, and create information for the organization. This effort will produce a catalog or map that shows where data resides. This will increase the understanding of duplicate/relevant areas and knowledge of business representatives that need to be involved in the data governance program.

Processes: Understand how data flows throughout systems from source to output.

Outputs: Know how data is transformed into information, and how that information is published and distributed in reports, live dashboards, intranet sources, or other outputs. Compare that process to the desired outcome to identify gaps to help respond to concerns that arise when data does not meet business objectives.

Customers: Assess the needs of the decision-makers that will use the data to pursue business objectives.

Data is a valuable corporate asset, yet many companies fail to realize its full business value. Data governance creates an environment where companies can leverage their data quickly and efficiently to respond to challenges and opportunities posed by the market. A sound data governance program provides formal policies, standards, and oversight that enable decision-makers to receive the accurate, timely information they need to achieve business objectives.

Information Security

Security should be one of main objectives of an organization's data governance strategy. Information has become increasingly portable and accessible, which benefits the collaborative business environment yet increases the risk that data will be lost, misused, or compromised. Data breaches can lead to substantial fines, lawsuits, and damage to a brand's reputation. These security risks illustrate the importance of strong data governance programs that incorporate data security. Senior executives should understand the value of these initiatives, because CEOs and CFOs may be held responsible for infractions of records and information management regulations. The organization's data governance strategy and security management activities should align. Both initiatives will recognize that data and information are one of the organization's most important assets and should be protected and leveraged to achieve business objectives.

Both initiatives must also recognize that high-performing technology and knowledgeably crafted policies are useless if employees are careless with enterprise data, share passwords, take home laptops filled with sensitive data, or do not input data so that it can be processed and shared with the organization. Data governance and security management must not fail to address people and cultural change.

Data Governance must be exercised at the enterprise level with federated governance to individual business units and data domains. It should be proactively exercised when a new process, application, repository or interface is introduced. Existing data is likely to be impacted. In the absence of effective Data Governance, data is likely to be duplicated – by chance or choice. Consider these data characteristics:

- Data gets accumulated by the nanosecond
- Data needs to be understood and analyzed to be processed and applied as meaningful information
- Data comes and goes in spurts with peaks that require an elastic infrastructure from a compute, network or storage perspective and
- Data fallen into the wrong hands can be disastrous for individuals and enterprises.

Employee Productivity

Today, the average employee sends and receives more than 100 emails per day, and 25 percent of those sent contain attachments. The average employee also creates or modifies 20 or more files per day. Some of these emails and files contain business records, creating a compliance challenge involving sorting records from non-records, and applying appropriate retention.

Companies suffer from a “save everything” culture, where employees save email and documents on desktops or file shares well past any required record retention period or beyond any remaining business value. Ironically, the biggest casualty of employees’ “save everything” approach may be employees themselves: The average employee spends as much as six hours per week — twice what is considered best practice — managing, searching and identifying documents.

An effective Data Governance program complete with awareness and standardization throughout the organization can improve employee productivity while at the same time reducing risk.

Benefits of an effective Data Governance program include:

- Reduce operational costs.
 - A well-designed data governance plan can improve the organization’s efficiency by eliminating duplicative processes and manual steps related to data input, processing, analysis, and distribution. Streamlined data management processes, enterprise-wide standards, and quality controls provide a framework in which organizations can save money and increase efficiency. Time and resources currently spent reconciling data or identifying and fixing database problems can be invested elsewhere.
- Competitive advantage.
 - Decision-makers need timely, useful information to react to market conditions, respond to client and customer needs, deliver valuable products and services, and drive success. But when a company operates without a data governance program, every function sets its own rules, policies, and standards for collecting and distributing information. This content may be fractured in incompatible formats among several databases, which can make it difficult for decision-makers to see what is happening across their organizations, prevent the development of real-time dashboards, and hinder the ability to perform comparisons.
- Increased business user confidence.
 - A strong data governance program allows decision-makers to be confident that their information is reliable and up to date. It also provides a structure for identifying errors and making corrections as soon as data management issues arise
- Greater collaboration.
 - Without standards and quality controls, different departments are essentially speaking different languages and cannot share information fluently. An effective data governance program breaks down barriers to collaboration by initiating a conversation between representatives from different functional areas about how to best use and manage data. This cross-functional communication helps eliminate the misinterpretations that occur

when different business units make assumptions about data that different groups capture, contribute, and share with the enterprise. Representatives from different business groups should work within the data governance model to address issues such as accuracy, accessibility, integrity, timeliness, redundancy, consistency, privacy, and completeness.

“Informationalization”

One article that struck a chord with me during my research came from a post on the Harvard Business Review blog site where the author (Thomas C. Redmond) introduces a new term – “Informationalization”. Although not directly tied to Data Governance, it helps to expose the opportunities that could be lurking inside the data that already exists and cautions organizations to understand how they are processing/transforming it.

“We are in a universe of data where its ‘informationalization’ yields valuable intelligence that enables effective decision making and analysis. However, even having the best people, process and technology is not going to yield the desired outcomes if the underlying data is suspect.

Data matters, if you glean the valuable information from it with proper context. When rationalizing and transforming applications as part of an enterprise transformation program, the modernization strategy applied to a given application influences the manner in which the underlying data is processed -- it is migrated or archived or transformed or replicated -- all in the context of the set of applications being transformed.

Five techniques to informationalize data during this process:

Informationalizing through Usage. During the transformation process, we need to look at how a given application is using the underlying data. Is it adding more context and using the data to provide valuable information to the end user? Consider the example of knowing how cold the beer is just by seeing the graphic on it. The applications transformation process provides a good opportunity to check out the manner in which the data available is being used and presented.

Informationalizing through Synthesis. Applications have access to data across different repositories. The GPS device in the car has reduced the traditional conflict with the spouse on reading maps during the journey. The GPS knows where the vehicle is positioned at any point of time and also has information about the location of restaurants, motels, gas stations, etc. It can synthesize this data and bring it to life by informationalizing it. Around noon each day, it can display a lunch icon that shows the restaurants in the nearby locale when the car is in motion x miles away from home. Synthesis. Are the applications using the available data from multiple sources in a synthetic fashion to realize such benefits for the end user?

Informationalizing Unstructured Data. We have trained ourselves over the years to operate with structured rows and columns of data. Software available today can turn the tables on computers by making them think and discern information like humans out of combinations of unstructured data. A sizeable slice of the value in the delivery of a shipping container from halfway around the world would be in the data associated with the container. True. But imagine software that is able to identify the serial number of a container from the cell phone photograph

of a shipwreck to determine that there will be a significant delay in the delivery of those goods to their end users.

Informationalizing through Integration. Even though data integration has been done for many years, the applications rationalization and transformation process provides opportunities to position predefined integrated views of the underlying data. Usually such integrations are most effective with structured data. Integrated views could offer opportunities for informationalization that may not have been available otherwise. Think about mothers doing an in-depth analysis of the ingredients of the food being served to their infants. Imagine them having an integrated view of the nutrients that are being fed across all the meals their children eat on any given day. Informationalizing through integration.

Informationalizing Securely. Don't lose sight of the sensitive nature of the informationized data -- especially when it comes to retaining intellectual property, adhering to compliance regulations, etc. Informationalization is most effective when it is done to the audience that is likely to use it to deliver on outcomes that matter to people we care about. Even the most valuable information discerned can be disastrous if it falls into the wrong hands. Security must be given renewed consideration while informationalizing data during the applications transformation process.

In conclusion, explore and discover the collection of data that is available across the multitude of repositories within the enterprise and determine how it can be effectively presented to the right users at the right time across the application landscape."

Value to CU*Answers

Considering the growing number of IT systems that store and process data, the expanding number of sources that create and modify data that we either process and store or process and deliver (never storing), and the explosion of data on disk, we would stand to benefit both from an information assurance perspective and a business opportunity perspective by pursuing and adapting a data governance strategy. I believe that we would find we've already implemented several DG-like processes and procedures within individual departments (internal auditing/records management, network services, software development, quality control, etc.). By escalating this up to the enterprise-wide level in a coordinated fashion, we could reap the benefits of a standardized model across most, if not all, platforms. Setting the goals and objectives of the program, performing an assessment to see where we're at, developing an awareness program that associates data as a valuable corporate asset, and identifying the governance and management teams will provide the ingredients needed to launch the initiative.

Business Opportunities

There are several teams who would stand to benefit by such an initiative. The skills and experience of the Data Analytics team could be extended across several platforms. The UCI and API development teams would be able to standardize access to multiple data repositories. Understanding the breadth and

depth of information that exists could expose exciting new potential products to market, problems that require solutions, and collaboration opportunities with internal and external partners.

Understanding the (current and future) value of data is critical when deciding on strategies to protect it (confidentiality, integrity, and availability). This information will be helpful (for me personally) when consulting with client credit unions and developing and enhancing their business continuity programs.

Resources used for this document include:

<http://h30507.www3.hp.com/t5/Journey-through-Enterprise-IT/Data-Governance-It-is-the-data-stupid-govern-it/ba-p/125983>

<http://h30507.www3.hp.com/t5/Enterprise-Services-Blog/What-happens-at-HP-Discover-won-t-stay-in-Vegas/ba-p/114859>

<http://www.cio.com/article/2438861/enterprise-architecture/six-steps-to-data-governance-success.html>

<http://www.oracle.com/technetwork/articles/entarch/oea-best-practices-data-gov-400760.pdf>

http://www.pwc.com/en_US/us/increasing-it-effectiveness/assets/data-governance-may-2011.pdf

<http://www.arma.org/r1/publications/infogov-luv/2014/09/26/the-difference-between-information-governance-and-data-governance>

<http://www.contoural.com/docs/ACC-Docket-Oct-2014-Cover-Story-Building-A-Case-for-Information-Governance-Program.pdf>

Scott Page & Julie Gessner

What I learned:

Today, 80%+ of organizational data resides in unstructured and undermanaged data repositories. During the past decade, these repositories grown exponentially. Today, most firms struggle to document/ obtain answers to critical questions revolving the security of their data and lack the proper knowledge, facilities and tools to control the sprawl of data access.

Additionally, data governance represents an organization commitment to managing data, formalized through a set of policies and procedures that encompasses a wide criteria, and accounts for the full life cycle of data. Several of these include:

- Identifying areas of weakness, pressure points, or strengths (that can be built upon).
- Improving data quality and reduce data redundancy
- Protection/ security of sensitive data
- Ensuring data and IT compliance with regulatory requirements
- Encouraging and training on using data correctly
- Providing a platform for robust data analytics

In essence, Data governance (DG) refers to the overall management of the availability, usability, integrity, and security of the data employed in an enterprise. A sound data governance program includes a governing body or council, a defined set of procedures, and a plan to execute those procedures.

Why do we care?

In the headlines:

- Enron costs thousands of employees their jobs, companies fail after the fall of Enron
- Hackers- Is it a trend or is it a crime. Do people trust Target and Home Depot anymore? Debit card hacks cost hundreds to millions. What does this mean to financial institutors?
- Brian Williams. What does a trust and security mean to those on the other side?

Whether its compliance, safety and security, trust and confidence or integrity that is important to our clients they are paying attention to data governance initiatives now more than ever? Is it are on the rise. Should CU*Answers pay attention? Do we have a plan and how would we sell it to credit unions and our cuso partners if they asked us today?

Per my initial DG review – a couple key areas commonly linked to existing/ potential client discussions:

Data analytics - the tools and processes for data discovery to improve business outcomes. Analytics is the discovery and communication of meaningful patterns in data.

Benefits:

- Cost savings – system; people research efforts, timeliness in reporting
- Minimizing or eliminating re-work
- Optimize staff effectiveness
- Improved system performance of Production servers
- Data consistency across multiple business divisions
- Improved business decisions
- Increasing consistency and confidence in decision making
- Maximizing the income generation potential of data

Data Security – privacy and security considerations (protections from data loss and data corruption):

Benefits:

- Improved data security
- Helping ensure valuable data is protected from misuse and loss
- Decreasing the risk of regulatory fines
- Designing accountability for information quality and integrity
- On-going/ improved client confidence

What does it mean to us?

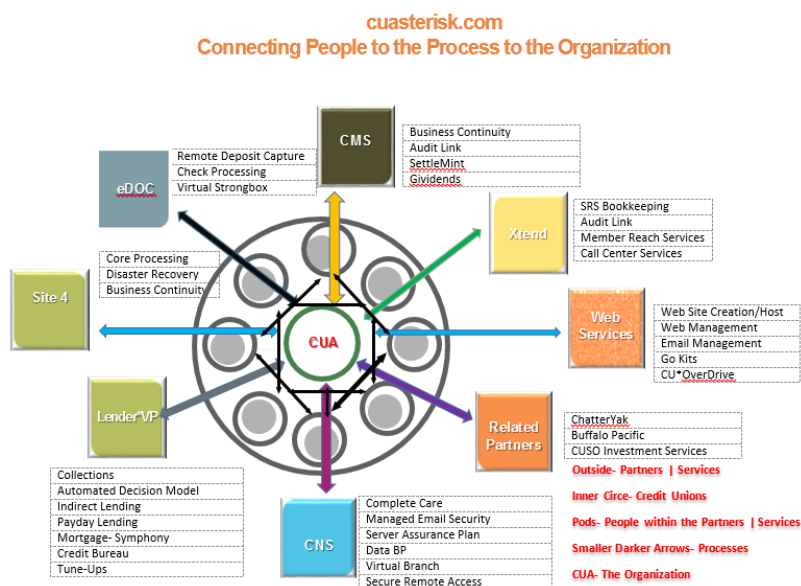
While it may seem confusing, Data Governance at CU*Answers relies upon the processes, controls and workflows of the network.

Envision CU*Answers in the center. It is here that the primary infrastructure of data governance happens. Ultimately it is here that data is developed, stored, translated and pushed back out to the client. In other words we ensure that important data assets are formally managed thought the company.

Then by surrounding ourselves with partners who are custodians of the data the information is translated in ways that can be utilized by the entire network:

- Ops Engine – The primary machinery giving and receiving data to the network
- CMS- Business Continuity, Disaster Recovery Compliance, Reliance and Quality
- Xtend- Quality Assurance, Transparency, Enterprise
- Web Services – Security, Trust and Confidence
- CNS- Structure, Security, Communications
- eDoc Innovations- Continuity, risk management, security
- Enterprise Content Management, Policy, procedure, business continuity, policy and procedure
- SiteFour- Business Continuity, High Availability, Trust and Confidence
- CU*Northwest and CU*South – Service, Support, Continuity and relevancy to various markets

Various other teams also work every day to protect and govern our data including the Executive Committee, ORD, Accounting, Legal, Marketing.



How Sales Team Incorporates Data Governance:

Is data governance real or is it noise?

Some would argue that data governance is about identifying and fixing issues. Some would say that data governance is a quality control discipline for assessing, managing, using, improving, monitoring, maintain and protecting organizational disciplines. At CU*Answers is it more about seeing the market in a whole new way?

Data governance is living our cooperative principals, leveraging a collaborative network and participating alongside our clients. It's what we do not because we want to or have to but because it's what defines CU*Answers as a CUSO and why people often choose us as their partner.

A Layered Network Design

Seeing the market in a new way:

➤ **Layer 1: CU*A – A Tool Provider** (traditional core processing)

- Packaged pricing/ revenue expectations
- Diverse and general approaches
- Responding to operational models and configurations
- Leveraging an active audience upstream to their conceptual models, and their evolution



➤ **Layer 2: CU*Answers Management Services** (extended consulting, Layer 1 investment - new game)

- A la carte service offerings
- Specialty services and expert approaches
- Driving conceptual models and change into CU configurations
- Leveraging expertise downstream for core processing depth and expertise



➤ **Layer 3: cuasterisk.com Network Configurations**

(wholesale partner services, creating a national network approach)

- Wholesale and alliance-based revenue expectations
- Franchise-like business expansion (potential cuasterisk.com operations)
- Alliance-based alternative business expansion
- Shared infrastructure (network) projects
- Leveraging expertise across shared commonalities



Other Top of Mind Sales Team considerations:

- Greater existing/ potential client confidence in CU*Answers consideration.
- Greater confidence in client decision making (per available analytics tools)
- Business Development service opportunities (CNS, Advantage CIO (Jim L.), Patrick S.
- CU*BASE analytics tools – instant dashboards/ snapshots in time; a proven commitment to keep developing... added client reassurance.
- Eliminating CU staff time/ resource need to create volumes of custom reports.
- Contract language – regularly reviewed/ updated (at least annually) to ensure meeting industry requirements.
- A true client ROI opportunity - per deep data analytics tools.
- Data analytics – a standard (and *FREE*) CU*BASE core competency.
- Our cooperative commitment to open disclosure - to nearly everything; nothing to hide.
- Treating data as an asset... altering a credit union's way of traditional thinking, and developing processes to process data so that it may be utilized by the entire organization. It's about using technology in a different way... when credit unions desire, or are required to gain control of their data, they empower their people, set up processes and seeks help from their technology partner to take ownership.

David Damstra

Data Governance is used all the time in Web Services to check for accurate data collection prior to projects. It ranges from manual gut-check validation of web site updates to automated processes such as My CU Today data imports.

For example, for Self Service Channel Custom Branding Options, the Web Services team fully vets an order to make sure we have all the information needed before passing on to the Online Banking Team to do the work. This is a manual form of data governance and heavily involves customer service to make sure the data collected is the correct data needed to do the project. This includes checking the logo files the client submitted to make sure they are in the proper format, with proper rendering and properly coloured to match the desired use. Data governance in this regard is front loaded on the project to validate the incoming content and reduce re-work and optimize staff effectiveness during the build process.

Automated data governance occurs with My CU Today. During the import process, My CU Today validates the incoming data to confirm the collected data points match the expected datatype. Validating the data in this regard, prior to import, ensures that the data integrity of the data warehouse remains intact.

My CU Today checks each field to be imported making sure that if a number is expected, a number is provided. Or in the case of branch names, a string of characters is provided. My CU Today imports via a comma separated value (CSV) file format. Strings of characters can cause problems with this format if the string is not properly escaped. For example, if a branch name includes a comma, this would cause the import functions to move to the next data validation point. In this case, data governance needs to be layered in depth. The source of the data needs to prepare the data in a format that the consumer will ingest and validate properly. The consumer has to certify and sanitize the incoming data for the proper use.

With a hap tip to John Beauchamp for the comic idea... this is the classic Little Bobby Tables
(<https://xkcd.com/327/>)



Data governance is an agreement between the source of the data and the consumer of the data to a specified format. But it has to be more than an agreement, it has to be enforced. The data governor, is the gatekeeper ensuring that the agreed upon interchange format and protocol is followed properly. Failure to do so in the online world can result in SQL Injection (like little Bobby Tables), cross site scripting (XSS), data leakage, buffer overruns or underruns or basically any of the means that attackers use to compromise online sites. This validation mechanism can be manual or automated depending on the processing requirements and if not properly enforced can cause data integrity issues, security issues or a multitude of other problems.

WHAT I LEARNED ABOUT DATA GOVERNANCE AND HOW IT APPLIES TO MY BUSINESS.

According to the Data Governance Institute, (DGI), Data Governance means, *“the exercise of decision-making and authority for data-related matters.”*

More specifically, Data Governance is “a system of decision rights and accountabilities for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods.”

I interpret this in layman’s terms to mean, an organization’s data isn’t just “out there” growing organically, rather someone or some team is managing it and making cognitive decisions about what to keep, not to keep, how to keep it, how long to keep it, who can access it etc. etc. Now there is no shortage of information on the internet about this topic. As stated in our previous meeting, Randy was right that every consultant twisted the meaning to suit their needs to sell consulting.

To apply it to my area I think a key point is this; also according to the DGI, every data governance program should have the following in their mission: Make rules, resolve issues, monitor and enforce compliance of the rules. They also state an organization needs data governance if they fit one of four reasons. The forth they give is the reason most applicable to my area and that is, “Regulation, compliance, or contractual requirements call for formal Data Governance.” Credit unions are indeed regulated with regard to images of documents and must comply with retention schedules, what information is on those documents etc.

Ironically much of this is something I’ve been preaching all along as a part of my consulting. I just never realized it was “data governance.” I have advocated that credit unions identify document/ process owners. Referred to as a “data stakeholder” by the DGI. These are the individuals closest to the data to know what is important and what isn’t. Secondly, I’ve advocated defined and enforced retention schedules. This is being called out more and more in examinations. Referred to by the DGI as “rules and enforcement of the rules.” Next I’ve advocated that documents are only kept for business or compliance reasons. This avoids warehousing of data that is not needed that will add costs to DR solutions and potentially put credit unions at risk. Further, garbage in garbage out as the saying goes. I have been advocating auto-populating indexes where ever possible to avoid errors, applying programmatic controls where possible, like required indexes or signatures etc. Lastly, audit the data. If no one is looking no issues will be found. Credit unions need to routinely audit their data. Sort tables ascending / descending, see what null values bubble up. That’s a credit union perspective, but from the inside looking out as an architect, I think we need to have clean data and agreed upon formats

(data governance) between CU*BASE, OBC and Imaging Programming teams so we can deepen integration to benefit workflow and member experience. You are seeing this most notably as eDOC, Imaging and Mobile programming teams come together on our mobile initiatives.

In summary bolded above are the top reasons my business could benefit from data governance. The goal would be to drive this message into the consulting aspect of what we do. I think some repeatable consulting engagements would both benefit credit unions as well as drive revenue. Especially in light of recent examinations at some credit unions where they were put on the carpet for lack of a retention schedule and formal implementation of it. If we applied the above under the flag of data governance it would be beneficial.

Patrick Sickels

Data Governance

According to the [Data Governance Institute](#), Data Governance is “the exercise of decision-making and authority for data-related matters.” Data Governance is further defined by the Institute as:

“... a system of:

- decision rights and accountabilities for information-related processes,
- executed according to agreed-upon models,
- which describe who can take what actions,
- with what information, and when,
- under what circumstances,
- using what methods.”

Data Governance asks who can use data and under what circumstances to make decisions. Ideal data governance models measure the quality of data and whether or not this is applicable for making certain decisions.

A good example of the risk involving poor Data Governance would be [Lehman Brothers](#). Lehman Brothers had been on the Fortune 500 for 14 years and was ranked 37th in size in 2007. However, the company was leveraged out by a ratio of at least 31-to-1, meaning it borrowed \$31 for every \$1 in equity. Once the housing bubble burst, Lehman could not unload the borrowed assets on the market. Lehman Brothers went from revenue of \$59 billion in 2007 and 28,000 employees to bankrupt in 2008. The Data Governance disaster that befell Lehman Brothers was the fact that, according to a 2010 report by the court-appointed examiner, showed that Lehman executives used accounting tricks to improve the firm’s balance sheet. For example, Lehman executives used repurchase agreements that temporarily removed securities from the company’s balance sheet. Executives described these agreements, falsely, as the outright sale of securities. While neither the executives nor their accounting firm, Ernst and Young, [were criminally charged](#), Lehman Brothers’ bankruptcy almost certainly had a disastrous effect on the United States’ economy.

Data Governance Business

Credit Union Planning

Callahan and Associates has [CUAnalyzer](#), a great tool for a credit union to use to learn more about its performance relative to its peer group. CUAnalyzer provides reports such as:

Two-Year Financial Statement: This report provides an overview of any credit union’s balance sheet and income statement performance over the previous 12-months.

Comparative Summary Financial Profile: View any two credit union side by side, or throw in a peer group average.

Credit Union Scorecard: Benchmark performance relative to peers with more than 100 ratios organized into categories like Financial Momentum, Member Metrics, Efficiency, Delivery, Channels, and Lending.

Return Of The Member (ROM): Callahan's ROM index helps credit unions measure their members' use of the credit union. This index takes into account multiple areas of your credit union's performance such as member usage, borrowing and saving activities, all compared to credit unions in your asset range.

These reports are excellent and provide a credit union with some decision-making evidence to justify decisions.

However, what the tool does *not* do, and there do not appear to be *any* tools in the credit union industry space that do this, is provide predictive models if assumptions change.

As a credit union leader, you'd want to know where your earnings come from, your expenses, and what might happen if your assumptions change. What if interest rates rise higher than expected in the coming year? What if they rise slower than expected? What if a major employer in the area goes bankrupt? How is the financial institution's liquidity affected?

Answers to these questions, especially those that could go with one-year, three-year, five-year, and ten-year projections. This would also allow the credit union to develop plans in case assumptions change or the local economy has major changes. Finally, the credit union would have additional ammunition to challenge examiners during Safety and Soundness Examinations.

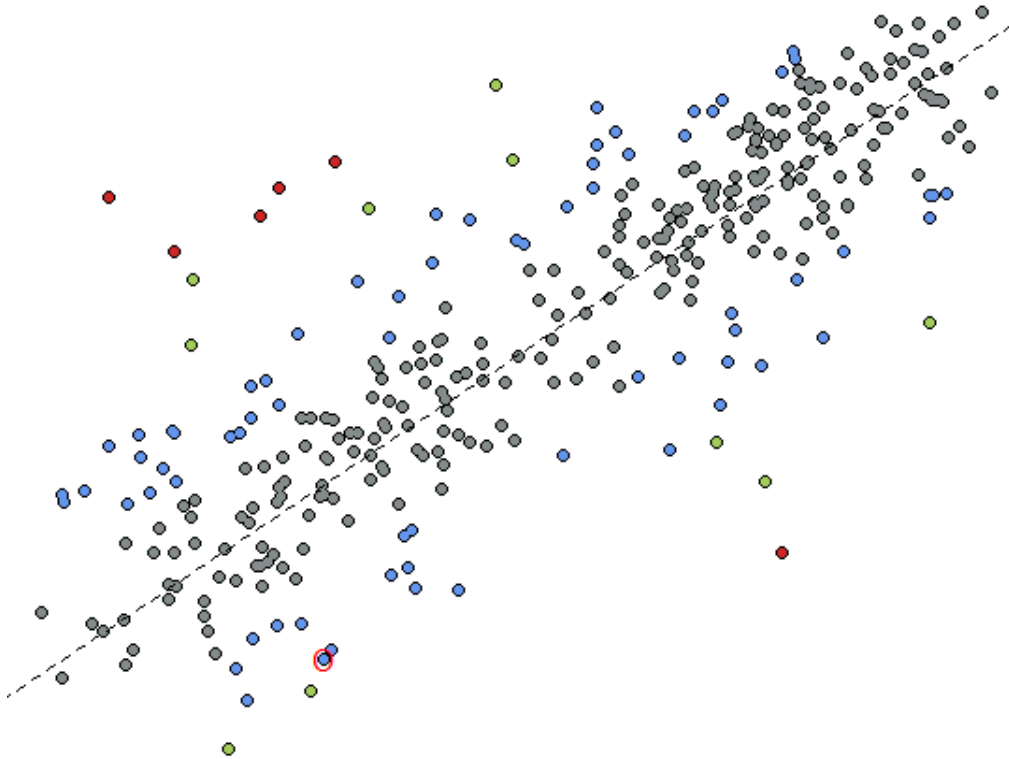
CU*BASE is very well positioned to offer this kind of analysis to credit unions. CU*Answers is already working on data management through [My CU Today](#), and this would be a next logical step. The data for every credit union is already there, it just needs tools and formulas to interact with the data in order to help with predictive models.

Bonus #2 – Using CU*BASE to Learn More about Members

Credit Risk measurement is a relatively blunt tool for determining whether a particular person is more or less likely to repay a loan:



It suggests that how a member has repaid in the past informs how the member will repay in the future. However, if you take all E Credit Score risks, it might look like this:



Who are the people in the upper right corner of this graph? Is there a common thread to that person's age, marital status, etc.? A credit union cannot *discriminate* in lending, but it can *market* to the demographics who are more likely than the overall population to repay despite poor credit.

This is a way of using outliers to provide your credit union with a competitive advantage because it can market to those people whom other financial institutions will not lend to, but are more likely than not to repay loans despite poor credit.

Jim Vilker

What is it?

According to the definition it is a **control**. In that sense it refers to an undertaking where “everything is being carried out in accordance with the plan which has been adopted, the orders which have been given, and the principles which have been laid down.”

The Wiki definition also refers to data as an asset and that the process of governing those assets ensures that the asset can be trusted and people are held accountable for any adverse event that happens because of low quality. It is further defined as a discipline for “assessing, managing, using, maintaining and protecting organizational information with a system of decision rights and accountabilities.

How do I apply this in our world

In a sense governance is a way to force decision makers of information technology to follow rules associated with their day to day decisions on how they manage data. Consider this... how many decisions are made regarding data when a credit union decides to go with a product like Verifin? What data definitions are given to the company along with how it is used on the system? One mistake on interpretation could result in Verifin thinking it has what is necessary to do an OFAC scan when in all reality they could be scanning on completely irrelevant data. Now consider the impacts if other downstream systems were dependent upon the results found within Verifin and required that information to run another process that has compliance related risks.

Another example would be the consequences of when a data element does not exist. Someone makes a decision to move forward without an important element but who evaluates the impact on the software’s ability to perform the functions it was promised to deliver. Worse yet what regulatory problems would the lack of that information pose in the future. Now multiply this integration by hundreds if not thousands of complex networks and software interfaces which the unknown lack of data could affect.

What it is intended to do?

Point out mistakes in order that they may be rectified and prevented from recurring. Draw attention to a rule set regarding data that decision makers use consistently and therefore create transparency across an organization.

How does it apply to CU*Answers

Data governance applies to many areas across our network including:

- Specification writing – incorporating standards across multiple data sets and determining the best way to transform the data used in feature functionality of GOLD
- QC – setting minimum standards for the calculations of data elements and end results from processes that create new elements while protecting the existing data from erroneous new programming logic
- Conversions – evaluating the relationships between data elements on one system vs. another and creating the rules for transformation of the data to operate appropriately and as warranted on GOLD

- Edit Checks – decisions made by writing team and programming teams to guarantee consistency of the data stored considering multiple
- Field format and programming standards – to guarantee that calculations of subsequently stored information is consistent and warrantied
- Interfaces with third parties – reviewing required data elements that will be communicated and understand their exact definitions while being thoughtful when an element does not exist that is critical to either CU*Answers or the third party

How do we use governance as a marketing tool

Data governance is best used in our sales process as it relates to other data processors. Our best of breed argument is a strong one but best of breed “breeds” problems data governance is designed to monitor, manage, and correct. If we ever had any budding industry initiative to win our best of breed argument this is the catch phrase. This needs to be included in our sales vernacular ***as we own and control the majority of the data and processes that transform it.***

How would AuditLink use this? In everything I have read data governance is driven in some part by compliance. In our world that would mean multiple regulations including GLBA, BSA, OFAC, and many more. In our case we control the quality of the data that we own and guarantee the processes that update it. However, when dealing with non-CU*A clients or dealing with a larger client that desires multiple interfaces to new third parties AuditLink could definitely be involved relative to the risks these exchanges would pose. In a sense it should be part of the risk assessment during the process. Case in point is the requests for an interface with Verafin.

During a recent visit to a \$300 million dollar potential client it was stated that their interface runs two days late and they never got all the elements to make the system work. This bolstered my sales pitch that they would no longer need a secondary system and would save a large amount of money by using native tools where data is current, relevant, and warrantied.

Laura Welch-Vilker

Data Governance (DG)

From TechTarget:

Data governance (DG) refers to the overall management of the availability, usability, integrity, and security of the data employed in an enterprise. A sound data governance program includes a governing body or council, a defined set of procedures, and a plan to execute those procedures.

DG at CU*Answers

In researching DG I learned that most sites give the same message, they just say it differently. I liked the definition above, as it makes me think about not only the data we manage for our clients, but the data we hold as an organization. DG programs require defining owners of data assets, and speaks to policies, accountability, and auditing processes to ensure compliance. As an organization I believe we do a good job with managing our data, and when it comes to sharing data we don't have an option to do anything except be secure. Each team at CU*Answers plays a role in DG in one form or another by simply having access to member or employee data.

DG In SettleMINT

The SettleMINT Team specifically deals with passing data back and forth with clients, and does so using multiple secure methods such as Move It, the AnswerBook and Partner Care (communication with members). First thing that comes to mind is bill pay.

Below are the three products we use to monitor and support our clients using our bill pay products, with some of the goals that that need to be included/defined for adapting a DG.

Software/data:

- Partner Care (Fiserv support tool)
- FraudNet (Fiserv support tool)
- MASTER Site (iPay support tool)

All of these products house protected data that needs to remain secure and private. To increase consistency in the use of these products, we have processes and procedures in place for the team.

For each team member to remain accountable for their input and access, they have individual logins that can be tracked for activity.

We have processes in place for data security as well as it relates to communicating with members and verifying who we are speaking with.

We optimize staff effectiveness by having daily team assignments eliminating re-work.

Pete Winninger

Credit Union:

Name: Advantis CU

Location: Portland, Oregon

Profile: 1.16B assets / 57K+ members

Data Governance Main Theme:

Ensuring the right data will be made available to the right people, and only the right people. The need and quest for employees, members and partners to have confidence that their information is protected.

Problem:

The credit union wanted to monitor when and what methods were used to access their data, what was accessed, by whom, what was done with the data and for what purpose. They knew this needed to be an automated process.

Data management-related tasks such as permissions management, data auditing, data ownership, data classification, data migrations and archiving were chief among the list. Being able to simulate and model changes without disrupting existing business processes was also key.

Their Solution:

Choosing the vendor Varonis. The process, automated access and permission management for unstructured and semi-structured data on file systems, NAS devices, SharePoint site and Exchange mailboxes, providing visibility into existing access controls, data usage, and recommendations for tightening up access and group membership. Varonis also provides customers with the ability to model or sandbox permissions and group membership changes before committing them without negatively impacting productivity.

“We are able to see, just with a few clicks of the mouse, which folders are too accessible and either tighten down controls or move the files to a more secure place” - Jason Rohrbach, Sr. Systems Administrator

Why should this matter to CU*Answers?

We store, transmit and have access to a tremendous amount of data. This is an opportunity for CUA to not only be on the forefront of this issue for our clients but to have influence and use data governance to our advantage in the following capacities:

- o Better management = better data = better decisions = increased revenue
- o Conversions – safeguard the data we are responsible for
- o Sales tool – self-promotion, feature and benefit
- o Consulting service – client assessment and implementation
- o Auditing services – become experts and assist client

What can CU*Answers do now?

- Start the initiative
- Prove and show the value
- Don't let the effort fizzle

Jerry Collins

Data Governance and CU*Answers

The term Data Governance refers to how we make sure that our data is not just accessible but accurate, consistent and most importantly protected. It is a multi-phase system of combining control over who has access to data changes, who holds accountability for those changes, and who is responsible for the outcome.

We generally think of this as just the PII that we hold on our members and while this is the most public facing of the information, Data Governance also refers to the intellectual property that we and our client Credit Unions have too.

The FACT Act of 2011 is a good example of forced Data Governance. It had to tell people that SSN and birthdates are now commonly known identifiers of the criminal sector and we should stop using those. It went on to say that we need to verify who we are discussing PII with when we are not sure of their identity like over the phone. It told businesses that we need to narrow our group of trusted individuals that are allowed to change data. We as business people, and Credit Union owners, should not have to be told this type of common sense information.

Much of the qualifiers for Data Governance sounds familiar to me as I was involved in the Sarbanes Oxley act when it came into play. They share the same foundation in that Data Governance requires very specific plans and documentation of what you have, where it is accessible, who can change it, and how to track when it is changed. This process of initiating and updating is very costly and time consuming. This is where we as a CUSO and a network partner should be able to make a difference.

CU*Answers® could develop a system of documentation plans that we can then sell to our clients, and eventually to non CU*BASE® clients, that would create a unified system of what needs to be documented, when and how it is tracked. We could take the lead since we have an incredible compliance area and make it our goal to watch the changes coming from the legal and business side and be proactive in getting our clients ahead of the governance game and make the CU*Answers® name one that is synonymous with data integrity.

Furthermore we should go beyond what the minimums of the law require. We should be proactively looking and what makes sense and feeling the pulse of the clients, the network, and the public and to what they see as concerns and adapt to them before we are forced to by legislation. In effect, we could write the legislation.

This may well sound very pie in the sky at this point but we have the tools, the personnel, and the knowledge to do all of this here at CU*Answers®. Let's get moving.

Liz Winninger

Introduction

Spend one hour researching data governance. Write a 1-2 page document on what was learned, explain how it could be used at CU*Answers or in your specific area in the future. Use a current event/situation and explain how data governance could be used to translate services that you could sell or how it could improve the process.

DG is Cultural as well as Risk Based

“Garbage in, garbage out”.

A well thought out implementation strategy, institutional buy in, well defined key performance indicators and with continued monitoring, a firm can successfully implement and maintain Data Governance.

In today's firms there are endless points of data collection. Each of these data points can be considered opportunities for every employee within a firm. As each employee may interpret a data field differently, each data field can become diluted, based on each employee or departments definition and perception of the usage for the data. It is necessary for any financial institution to have a program in place which monitors their data and provides continuous feedback as to the integrity of the data.

Today's firms are collecting and analyzing data in ways never before possible. Data Governance allows decision makers to make fast, informed decisions based on the consistent, reliable data. A phased approach to Data Governance can make the process feel less like the “boil the ocean” concept, and more like an attainable approach from which each department of a firm can share in the success. PWC published a white paper titled “*Make information work to your advantage*. Help reduce operating costs, respond to competitive pressures, and improve collaboration.” The white paper lays out the importance and benefit of a successful Data Governance program. Among increased client and employee confidence, in regards to trust and decision making, the white paper states:

Through effective data governance programs, companies achieve:

- *Increased security for data and information*
- *Lean data processes for reliable data, more quickly, and at a lower cost*
- *Standard data definitions for enterprise consistency and greater business adaptability*
- *Better data integration across applications for operational needs*
- *Increased confidence in the use of enterprise data for decision making*

A phased approach is encouraged when implementing a data governance plan. Phases can be broken down into the following¹:



Source: PricewaterhouseCoopers

- 1) Buy in from the top
 - a. Employees need to know why
 - b. We all need to see the benefits of DG
 - c. We all share in its success
 - d. Create a cultural change
- 2) Assess the current state
 - a. Inventory the sources
 - i. What are the opinions of the stakeholders?
 - ii. How does data flow through your organization?
 1. Suppliers – internally and externally
 2. Inputs and Sources – who/what inputs, supplies and stores the data, create a dictionary
 3. Processes – how does the data flow through your system?
 4. Outputs

¹ Pricewaterhouse Coopers, *Make information work to your advantage*. Help reduce operating costs, respond to competitive pressures, and improve collaboration. Page 8. http://www.pwc.com/en_US/us/increasing-it-effectiveness/assets/data-governance-may-2011.pdf

- b. What are the KPI metrics?
- 3) Choose your data stewards and council
- 4) Develop the strategy
- 5) Constantly look for improvement
 - a. Manage the one source – the dictionary through data stewards by function within the company

In Practice

As we look at, target and segment defined populations of a credit unions membership is it extremely important they are using fields as designed and defined. Examples include:

- A credit union uses none@creditunion.com when entering a member into the system who they do not have an email address for. In order to have something in this field they use the above email address. They do this to ensure the teller or agent is at least checking this field while working with a member. As a result, when the email addresses are data mined to send estatement notifications to for the first time following a conversion a high volume of emails bounce, causing the credit unions system to slow. Additionally, inputting none@creditunion.com created a work around for the teller pop which prompted agents and tellers to update email addresses. In the end the accounts email addresses needed to be marked invalid and the cleanup of data created time lost by tellers, members missing out on credit union communication and among other implications, an increased percentage of invalid email addresses.
- A credit union would like to use its CRM tool which lies outside of their core data processor. Information regarding non-members, new members and current members flows into the CRM tool so the credit union can analyze these prospective or current members to then target them based on various data points collected by the credit union. The information in the CRM tool is updated daily, while the core processor, which stores these member and non-member records as well is updated monthly. As a result, the member and non-member relationship suffers due to the fact that the core platform from which interactions and behaviors are recorded does not contain the collected CRM information collected. Tellers then need to ask for information again, meaning duplication of efforts. Data must be input into two systems, which means time spent monitoring multiple data sources. The risk of human error increases and the answer to important questions, decisions and opportunities during the member interactions are lost because the information is not readily available to the loan officer, teller or phone agent.

I could go on and on with examples such as the above. I feel as though the sales and marketing teams are the ones most heavily impacted by poor data governance plans.

Appendix:

PricewaterhouseCoopers, *Make information work to your advantage*. Help reduce operating costs, respond to competitive pressures, and improve collaboration.

http://www.pwc.com/en_US/us/increasing-it-effectiveness/assets/data-governance-may-2011.pdf

Other helpful articles I reviewed included:

http://www.pwc.com/en_US/us/financial-services/publications/viewpoints/assets/pwc-chief-data-officer-cdo.pdf

<https://www.linkedin.com/pulse/5-ways-improve-your-data-practices-avoid-costly-errors-asha-saxena>

Pauline VanZalen

Data Governance as it applies to the Client Services and Education Team

ADMINISTRATION OF ENSURING THE USE OF GOOD DATA

The Client Services and Education team has processes in place to ensure the validity of both client data and member data. Below I have listed the areas where we have processes/procedures in place software where we have process in place.

AnswerBook

To protect member and client data the AnswerBook is a secure software that requires registration and a password to view and create incidents. Thus, allowing for the input of personal member information which is crucial to the problem solving and research of an issue that is reported.

To ensure that the end users of the AnswerBook are registered, we have assigned a designate to monitor all unregistered users and delete them from the AnswerBook. An email is sent to the creator (generally a CUA employee) notifying them of the current procedure's.

Statement Verification

Statement verification takes place every 1st of the month and every 18th of the month to ensure the accuracy of the member data that is printed on the member statements. Project sheets are monitored that could have possible impact on the data that is used for member statements. Checklists are used to ensure that all of the pertinent data is verified for every credit union that is monitored each month. The Credit Unions that are monitored change each month. The change could be based on configuration change, beginning a new product such as scorecard rewards etc.

Mortgage Statements beginning in March will consist of all of the credit unions that have chosen to print mortgage statements.

This is a prime example of monitoring where process improvement has evolved and included specific data sets, verification tools and training to ensure the end result.

Tracking spreadsheets are compiled each month and sent to an email group to alert every individual what to expect for the month.

Newsletters & e-mail Addresses

To avoid having our emails marked as Spam, a small team consisting of individuals from different departments share updated for email addresses. Once notified, the Client Service team updates all newsletter lists to ensure that data is updated and relevant.

Client Services & Education Team Trainers

The Client Services and Education Team has an internal Certified Trainer Program to ensure trainer presentations are practices and professional. This program includes the trainer being trained on the class material, be proficient in presenting the class with consistency and accuracy. To aide in the trainer development, training materials have been developed and presentations that are evaluated are used.

This program has been developed into an offering for clients so their trainers can participate in the training process at conversion.

Research, Testing and Project Sheet Creation

The Client Services and Education Team are the first responders to software issues reported by the clients as well as the communicators of issues caused by third party processes failing.

Communication is key when dealing with these issues. Concerns need to be addressed so that the clients have faith that CU*Answers and don't panic about this situation.

Individual/Personal call coaching is performed with each team member to discuss improvements and alternate verbiage for improved client communication. At least three calls are played, scored and discussed for improvement.

The call coaching sessions occur every month to determine the representatives continued improvement.

When issues area reported by clients, the CS &ED Team researches the reported issue to validate that the program is working as warranted. Written documentation such as online help and other resources are used in this process.

If the software is not acting as warranted, a project sheet is created that includes documentation for review by the CEO.

Conclusion

It is important to recognize that documenting processes and procedures as well as cross-training multiple team members for all initiatives our team is responsible for is a continuous process.

Scott Collins

Our assignment was to perform some high level research on the relatively recent concept of Data Governance and provide observations on what it means to our CUSO and how we could potentially profit from it.

Wikipedia refers to *data governance* as a quality control discipline for assessing, managing, using, improving, monitoring, maintaining and protecting organizational information. Since the core business of Xtend is to execute on credit union data utilizing our processes, each of these concepts is integral to our value proposition and income statement.

Assessing:

Member Reach was built on the very concept of marrying a topical and timely message to a targeted recipient. In order for the program to be successful, Xtend must effectively **assess** member data in order to achieve both timely and targeted goals. If Member Reach is to continue to evolve, it will be because both CU*BASE our analysts identify new opportunity sets to interact with. Better targeting equals more timely offers.

The same is true from an AuditLink standpoint, but instead of **assessing** data to keep top of mind relevance with the member, its data assessments deal with risk, safety and soundness.

Using:

Everything Xtend does uses data. Our value proposition is to use it frequently (Member Reach, outbound telesales), timely (Member Reach, AuditLink, SRS Bookkeeping), securely (all brands) and inexpensively (all brands).

Improving:

Ongoing communication with members through channels like the Xtension Call Center and Member Reach identifies data inaccuracies (phone, email, address, opt in/out) that improve the ability of the credit union to serve their members. Effective utilization of trackers as a lead passing channel gets data to decision makers/experts in a digitized manner, and that data becomes relevant to future communications/opportunities with members.

Monitoring:

AuditLink was built to monitor data and make recommendations based on analysis of said data. Call metrics allow us to effectively deploy resources to meet demand in the call center. Analytics of click-thrus allow Member Reach to determine messaging/targeting effectiveness.

Maintaining:

Data accuracy is a necessity for Xtend to be successful. Consequently, our teams are responsible for identifying and documenting/escalating/updating inaccuracies that limit the effectiveness of Xtend, or the credit union staff, to do their jobs.

Protecting:

Adherence to security of member data permeates all Xtend brands and is at the core of our value proposition as a trusted partner of the credit union.

Overall, adherence to effective data governance is both an offensive and defensive play for Xtend: offensive based on our ability to drive more revenue and loyalty for the credit union (and the CUSO as well); and defensive since credit unions won't continue to buy our services if we are not guardians of member data.