Interactive Data: Making the Pipeline a Reality

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What makes data “interactive”?  

• **Organized** to ensure content can be used at every step in the process.

• **Interoperable** so that disparate technologies can make use of the content equally and seamlessly.

• **Distilled** so that each step in the pipeline adds value for the next downstream user.
U.S. National Policy Objectives
Fairness, Transparency, Market Efficiency

Technologies Co-Exist
Files (.csv to Gen-X)
Sheets (→ ExcelML)
Data (legacy to SQL)

Interactive and Interoperable

Business Case Tasks
Submittal
Validation
Transmission
Distillation
Reporting

Financial Workflow Functions
Pricing, Credit, Transaction, Assurance

Institutional Risk Analytics
Why do investors need ID?

- **Data:** Investors assess value and risk in the marketplace by using financial data.

- **Legal:** Enabling the investor to make informed decisions is why the SEC Acts, Regulation Fair Disclosure and Sarbanes-Oxley Act exist in the first place. ID required by law.

- **Fairness:** But current technology does not serve all investors well …
As of 2006, we still live with late-1990’s solutions:

- **Accuracy:** Re-keying, mis-keying and vendor standardization conventions by “1st Amendment” vendors keeps data below evidentiary grade quality.

- **Cost:** Only institutional investors can “afford to fix” the shortcomings of third-party vendor data, individual investors suffer structural discrimination.

- **Timeliness:** Delays resulting from SEC’s Real-Time versus Overnight Dissemination technologies gives banks, funds “first look” advantage over individual investors.
Perspective: Information Evolves

- Like most government agencies, SEC started its mission by collecting forms on paper. Filers, institutional investors gamed the physical filing system as long as possible.

- In 1994, SEC began collecting data using then forefront methods such as CSV text for corporate forms and DBase III files for mutual funds N-CSR's.

- As the internet matured, SEC expanded disclosure to include HTML formatting. By late 1990's, first experiments with tagged data conducted and SEC eventually begins to mandate electronic filing of all forms.

- None of these methods was perfect, but each step taken by the SEC was an incremental improvement.
Prudent Action

• The SEC's exploration of "interactive data," which includes but is not limited to XBRL, is timely and prudent. The SEC rightly recognizes core principles from the commercial sector where assessing new technology is an ongoing process which evolves with the tools and real-world experience.

• The SEC is not alone among government agencies (and private users) seeking to understand the maturation curve of “generation-X” content management. The process is underway throughout federal, state, local foreign governments as XML-based technology begins to mature from vision to practical tools.
SEC Questions
SEC Questions

Q: What sources of data are primarily used by analysts and investors for research today (e.g. official filings from SEC.gov, third-party financial databases, manually re-keyed data, etc.)?

A: Reality Check! Markets revolve around earnings announcements, not SEC filings. Technically, Reg FD mandates simultaneous release of all information. Practically, institutions retain overwhelming arbitrage advantage. Result, individual investor acts on the margins and via funds, which dominate markets.
SEC Questions

Q: What impact could interactive data have on access to reported financial data for real-time analysis? Would greater use of interactive data improve the ability of retail investors to access and understand reported financial data?

A: Interactive data enables analysis to move beyond point in time pricing to revealing the underlying “safety and soundness” factors affecting equity and debt investments. SEC sourced ID places content equally in the hands of individual and professional investors, and allows low-cost use of powerful database tools instead of today’s ubiquitous spreadsheets.
SEC Questions

Q: Presuming that a sufficient number of companies were to provide financial data in an interactive data format, what obstacles might get in the way of using that data?

A: The challenge lies in assuring sufficient uniformity of reporting by filers to enable comparability across price, credit and business model criteria. Companies need to be unique but not to the point of being opaque when tested against direct peers. Clarity of disclosure is required by law.
SEC Questions

Q: What incentives would encourage companies to submit data in an interactive data format?

A: The SEC should employ both a carrot and a stick. The ultimate incentive is investor confidence. A company unwilling or unable to report information transparently when mature technology is available is worthy of investor skepticism and regulatory attention. Good corporate citizens should eagerly embrace ID.
SEC Questions

Q. What perceived risks might companies see in submitting data in an interactive format?

A: Financial Reporting will forever be a game where Investor Relations spins the story to put a company’s best foot forward and investors reformulate the numbers to uncover what lies beneath. Enabling analysis to occur instantly will change corporate behavior and empower all investors equally.
SEC Questions

Q: In addition to the basic financial statements, which items in SEC filings should be tagged?

A: IRA suggests that first efforts focus on tagging information which improves the transparency of disclosure and thus helps investors make better informed investment decisions:
   - Tax, Option and Employee Benefits Footnotes
   - Insider Activity Information
   - Governance (Sarbanes-Oxley) Compliance Statements
   - Forward Looking Statements and Pro Forma Information
   - Portfolio Position Reports

We believe that tagging can actually help reduce cost of compliance by creating the business case for rationalizing standardization.
SEC Questions

Q: If a company were to make its data available in an interactive format, would that increase the chances of analyst coverage of the company?

A: Maybe. Reg FD, decimalization have broken Street’s research business model. When machine readable data can feed analysis engines via RSS notices, new forms of coverage may evolve via broker or media channels. Street analysts, vendors need to improve analysis techniques to add value and that ultimately benefits the investor. ID may help small caps achieve greater degree of “visibility” for investors, auditors and regulators.
SEC Questions

Q:

• What improvements could interactive data bring to the analysis of data? What new analysis would analysts perform that could not be currently performed?

• How could the use of interactive data increase the depth of information used in financial analysis or otherwise facilitate the quality of financial analysis?
A: Data Confidence

• Investor needs
  – Current Period
  – Previous Period
  – Peers

• Assurance/Risk needs
  – Current Period
  – Previous Quarter
  – Current Quarter Prior Year
  – Current Quarter Prior Business Cycle
  – Peers

Benefit: Imagine if accurate, government sourced ID allows all users equally to satisfy their data needs, on demand, from evidentiary grade source documents, and virtually for free, simply by having an Internet connection.
SEC Questions

Q: Given the potential for more automated, real-time analysis in an interactive data environment, what role will auditor assurance have in promoting confidence in the accuracy of the data?

A: The information pipeline from G/L to financial reporting is already being tightened because of Sarbanes-Oxley compliance. As reporting becomes hyper-mechanical, audit methodology will likely adopt new tools designed to monitor the accuracy of both workflow systems and accounting treatment. Today, the operational risks shift as much to the infrastructure as they do to the content.
SEC Questions

Q: Are there sufficient tools in the marketplace today to use interactive data? What type of tools would investors/analysts like to have? What are the costs versus benefits for such tools?

A: Yes. The industrial base for data storage, transmission and manipulation is actually quite mature. Whether one favors XML-files or SQL based solutions, both in reality offer much functional equivalence. For end users, range of choices is expanding rapidly (MySQL, Google spreadsheet,) as prices fall. SEC should focus on gathering and disseminating ID, leave consumption choices to the private marketplace.
Recommended pipeline enabling tools:

- “Dissemination Engines” Government sponsored RSS-grade equal time of release to all dissemination. Eventually carried via internet, cable and mobile access pathways.

- “Distiller Tools” that can capture, shred, reformulate and synthesize actionable answers to investor concerns.
SEC Questions

Q: How important is it to render interactive data so that it looks like a standard financial statement?

A: Effective Rendering = Delivery Validation

• Legal disclosure requirements make merger of the ID content and rendering a practical necessity for public companies, funds, other filers.
IRA’s Rendering Qualification Rule

• A “commercial grade” rendering system MUST:
  – Deliver something a “real person” can read.
  – Deliver something that appears in a spreadsheet by clicking one button.
  – Deliver a machine readable capsule that can be made to interoperate with both Gen-X and legacy systems.
  – All three “renderings” must have functionally identical content.

“Any solution that does not meet these criteria is deficient.”

- D. Santiago
SEC Questions

• Q: What is more important, flexibility of reporting under US GAAP and SEC rules or standardization of financial data?

• A: This is not a technical either/or issue. It’s an authorized mission compliance issue. So let’s break it down by the book …
SEC Mission Assessment


- Mission Requirement: Collect reporting and compliance information, without exception, from the full range of public markets participants.

- Task Element: Enable submittal and assessment sufficient to assure compliance with applicable directives and statutes; including, provisions allowing private entities to pursue a broad range of business models.

- Task Break Down Analysis:
  - SEC is a collection point to perform specified legal measurements.
  - SEC is a pass-thru station for communication between companies and investors.

- Process Design Implication:
  - Solution must ensure standardization sufficient to cost effectively measure and evaluate compliance with disclosure standards.
  - Solution must provide additional facilities to enable companies to communicate effectively with stakeholders.
Who is Institutional Risk Analytics?

- IRA is part of a movement within the financial analytics community to broaden risk measurement tools to include behavioral elements described by fundamental factors.
- IRA builds customized risk systems for processing structured data, and publishes research on companies and topics affecting financial policy & regulation.
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