White Paper

Bloor

The importance of an Information Strategy

A White Paper by Bloor Research
Author : Philip Howard
Publish date : December 2008

The idea of an Information Strategy will be critical to your business success and the key to sustaining your competitive advantage over time. IBM's Information Agenda has been specifically designed to help.

Philip Howard

Executive summary

Since its inception, IT has focused on reducing costs through process automation and the implementation of applications. However, that is no longer enough to sustain competitive advantage in a rapidly changing world. Today, important business decisions depend on having up-to-date, trustworthy information. At the same time, you need to assess the internal and external risks involved in such decisions. This is not easy, which is why organisations need to build an Information Strategy to guide them towards a coherent, integrated environment for managing and delivering information in support of their business goals.

Such a strategy involves not just software but a broader spectrum of concerns. Focus on information as a corporate asset is required to support key business aims. We need to move away from the current environment in which data is treated as separate from (and subservient to) applications and business process—which may require a cultural shift within the IT department.

To illustrate the importance of an Information Strategy imagine:

- That you know where all of your corporate data resides.
- That you could trust all of your data to be accurate, complete and up-to-date so that you could rely on it when you make business decisions.
- That you could access any piece of information, or combination of pieces, at any time, to support decision making and understand risk.
- That your data was protected and secure at all times.
- That whenever you needed to make a business decision that you fully understood all the risks involved.
- That you know, based on previous actions and conditions, what the next best action to take is.
- That you know that you were fully compliant with all legislative and governance requirements.
- That your data and content is stored in the most efficient and cost effective manner fit for purpose.
- That ...

An impossible dream? Perhaps. However, progress towards these goals is critical to supporting business strategy.

What an Information Strategy is

In this paper we will discuss what an Information Strategy is, why it is important, and what it takes to build one. We will also consider IBM's Information Agenda, that company's approach to assisting in the development of an Information Strategy.

An Information Strategy is a holistic approach to information management that best supports the goals and strategies of the business. This is not a one-size-fits-all environment: companies will start in different places with different capabilities and different priorities. Goals may not be identical (for example, different industries have different regulations that may mandate somewhat different strategies). Moreover, there is no end point: information coherence will always be a moving target as regulations and requirements change and new varieties of information are embraced.

So, an Information Strategy has to start with understanding where the company is today and where it wants to get to in the future. In particular, the strategy lays out the roadmap for the organisation, focusing on what information is most important to the business' strategy. The one thing that an Information Strategy must not be is rigid.

Specifically, the Information Strategy will not just be about technology and tools but also about the people and organisation.

Why it is hard

Defining an Information Strategy is hard because most organisations do not know what their current information status is. Typically, this is because IT has historically been siloed and focused on specific application or business process-centric projects. To build an Information Strategy it is necessary to view information holistically rather than from within the limits of any particular application or suite of applications.

In addition, creating an Information Strategy is difficult because companies find it difficult to determine their end goal and to prioritise between the information product choices available to them. For example, do you start with data quality or master data management (MDM), or perhaps data governance, or is one a part of the other? Similarly, what about data protection and compliance with data retention legislation? Further, there are considerations with respect to the threat of litigation and support for eDiscovery capabilities. Oh, and there's SOA: how does your data provisioning fit into that? With so many different decisions to make, how do you do this in a concerted and consistent manner? How do you prioritise? Where do you start?

Simplify

In general, the key to any complex problem is to simplify it as much as possible. In the case of an Information Strategy we have a natural tendency to conflate multiple issues. Take the example of Master Data Management (MDM). You might well think of MDM and data quality in the same breath and, indeed, they are closely linked. However, they are not the same: MDM is, literally, about the management of organisational reference data whereas data quality is (amongst other things) about ensuring that master data is fit for purpose and of a high standard. Clearly it would make little sense to have MDM without data quality but it might make plenty of sense to have data quality without MDM. Even where this is not the case then at least a significant part of the value in an MDM implementation derives directly from the fact of having high quality data. Moreover, it is this aspect of any such project that is likely to product the fastest time to value. So, the message is to logically separate the issues of data quality and MDM and treat decisions regarding these as distinct

Collaborate

An Information Strategy must belong to the business as a whole. Thus it is important that the tools associated with the strategy should be amenable to both business and IT users, and should facilitate collaboration, where that is appropriate.

Reuse

A further consideration is reuse. Data quality tools are a case in point. You will need data quality tools to support data migrations, ETL (extract, transform and load) tasks in conjunction with data warehousing, and MDM implementations. It is therefore important not to just (mentally) separate logical components of the information infrastructure but also to be clear about how, where and when these individual components may be reused. In the case of data quality you will also need to address the business issue of how good you need your data quality to be: is a 10% error rate acceptable or only 5%, or 20%? This is a good example of how the business and information management need to work hand in glove because only the organisation itself can determine how good data needs to be: it depends on what you want to use the information for.

Standards

Reuse enables the adoption of standards regardless of their derivation. We would recommend, for example, that you set a consistent acceptable error rate across applications, applying the principle of keeping things simple. Similarly, standardised definitions of terminology, re-applied data governance policies, common formats for content and even the application of formal standards in IT will also support simplification.

What an Information Strategy is

Corporate Priorities
The next issue will be that different departments and individuals will have different, possibly competing, priorities, which might involve different classes of software or different computing models such as in-house, outsourced, software as a service, cloud computing and so on.

Alignment with corporate goals and business strategies will be fundamental to determining priorities across competing demands.

What you need to think about

Elements to consider within an Information Strategy are:

1. Managing data and content (structured and unstructured) over its lifetime.
   - » Making the most out of your existing information management products through database performance management (including capacity planning) software, and data archival. These technologies exploit existing resources to improve performance while helping to defer or cancel potentially costly upgrades.
   - » The implementation of data protection policies. Without these any breaches will likely cause you financial pain (fines) as well as public (in the press) notice. If data governance is implemented in your organisation then data protection should be considered part of its mandate.
   - » Data security (protecting data from both internal and external threats) may or may not be within the aegis of data governance but similar principles apply as with data protection.
   - » Lifecycle management. Information is not static but changes over time, and needs to be managed as such. This includes, but is not limited to, data archival.
2. Connect multiple data and content sources.
   - » Connectivity applies to both traditional data movement technologies, for both structured and unstructured data, using ETL (extract, transform and load) tools, as well as the ability to query across heterogeneous data sources.
   - » Note that you may require different types of connectivity. For example, connecting to a content repository for search purposes has different characteristics from retrieving a document for inclusion in a business process.
   - » Data completeness. Harris Interactive recently (2008) conducted a poll in which it found that "only about 10% of information workers said they always have all the information they need to confidently make business decisions".
   - » SOA. Many organisations are rebuilding their software applications to support a service-oriented environment. However, those services need to access data in the same way that they access other services. Lineage considerations become critical.
3. Create single sources of trusted and relevant information.
   - » Data cleansing and matching. According to the Harris Interactive study "approximately 75% of information workers admitted to having made business decisions that later turned out to be wrong due to incorrect, incomplete, or contradictory business data".
   - » Data profiling. Bloor Research's survey results have found that data migration overruns are primarily caused by a failure to profile the data adequately. Taken together, data profiling and data cleanse/match can substantially de-risk migration projects.
   - » Master data management. This should really be separated from data quality even though it often isn't.
   - » Data governance is critical as technology alone will not fix poor quality information from entering the organisation in the first place.
4. Create a design that supports business optimisation through improved business intelligence, performance management, and compliance and risk management. Specific considerations include:
   - » Risk. Note that fraud is not generally considered to be a part of risk management but part of security. Risk management is the process whereby you ensure that you understand risk levels before you take management decisions. The intention is not to eliminate risk but to understand it and, where appropriate, hedge against it. Measuring risk and assigning it within the decision making processes is properly the domain of business intelligence and corporate performance management software. Risk assessment relies, for obvious reasons, on high quality data.
   - » Business-level comprehension of data. All too often, information is described with technical names that mean nothing to non-IT people. An automated encyclopaedia of terms is required that allows business people to work with data in their language and IT people to use theirs (if they must). In addition, such an encyclopaedia should incorporate dictionary-like capabilities that can explain the derivation of terms (such as "net profit = revenues less cost of goods less tax").
   - » Compliance and governance. Governance varies by company while compliance varies by industry and country.
   - » Data governance. This is less about technology and more about the people and processes you need to put in place to ensure compliance and governance. Because regulations such as Sarbanes-Oxley mandate that you can prove the lineage and accuracy of data, data governance is often taken to include data quality and MDM as well as other facets of information management such as data protection.

This is by no means a comprehensive list but it gives a flavour of the complexities of the environment, all of which need to be considered in an Information Strategy.

What an Information Strategy is

What you need to do

Information needs to be aligned with business strategy and imperatives. You need a plan for coherent information infrastructure, information governance and a roadmap that will support both short-term objectives and long-term strategies.

To start:

1. Have an understanding of your business strategy and planned areas of focus for business optimisation.

2. Map this strategy onto IT in general and information management in particular.

3. Have a detailed understanding of your current information capabilities.

4. Conduct a gap analysis between 2 and 3.

5. Gain an understanding of how tools, products and processes can extend your current information environment to bridge this gap.

6. The roadmap for doing so is your Information Strategy.

Often, businesses find they need some outside guidance, either in how best to go through this process or in hand-holding you through the process itself.

IBM's Information Agenda

IBM addresses this issue of an Information Strategy through what it calls its Information Agenda. IBM's approach builds on best practices from customer experiences in multiple industries and geographies and helps with information strategy and definition as well as governance supporting information infrastructure.

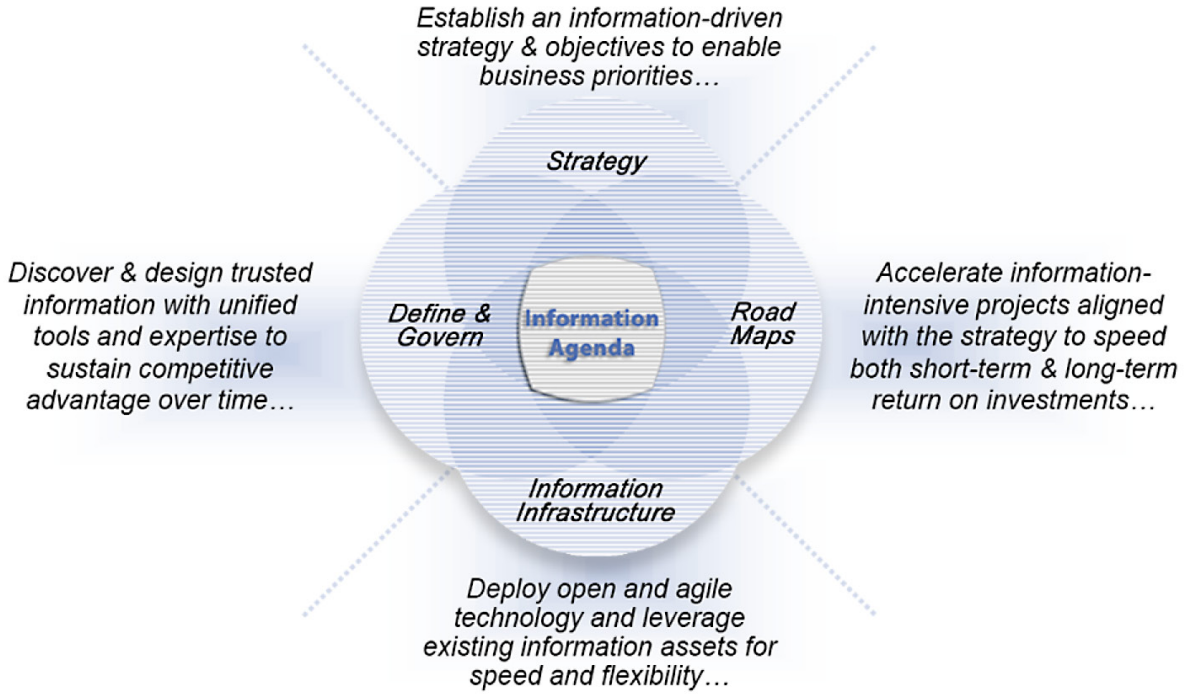

Figure 1: Becoming an Information Based Enterprise

IBM's Information agenda sits upon four interrelated pillars, as illustrated in Figure 1.

IBM, in conjunction with its partners, delivers its support for the construction of an Information Strategy through:

A. Foundational Tools. These allow you to establish where you are today and provide functionality to support the creation of your Information Strategy. For example, Information Analyzer, which provides data profiling, will help you to assess the current state of your data. Other tools include Metadata Workbench, which potentially serves to hold the whole information management environment together; Business Glossary, which provides encyclopaedic capabilities as discussed previously; Data Architect (data modelling); and FastTrack, which provides a collaborative environment for developing data integration projects at a business level.

B. Information Guides and Workshops. These practical guides provide industry-specific materials that are designed to connect strategic imperatives through business optimisation objectives to particular IT requirements. These guides and workshops are intended to help you quickly focus on a workable strategy, understand your requirements, conduct gap analysis and develop a roadmap that leverages existing investments and expedites your journey. These integrate with:

C. Information Accelerators. Many are industry specific and include assets such as industry data models, roadmap templates and so on. There are more than 200 of these in total.

D. Information on Demand Competency Centres providing consulting and support services.

There is no magic wand, though. Examples, templates, advice, consulting and tools help but, ultimately, your Information Strategy is precisely that: your strategy.

Conclusion

The idea of an Information Strategy is not difficult to grasp. Potentially, it will be critical to your business success and the key to sustaining your competitive advantage over time. IBM's Information Agenda has been specifically designed to help.

Further Information

Further information about this subject is available from http://www.BloorResearch.com/update/995

Bloor Research overview

Bloor Research has spent the last decade developing what is recognised as Europe's leading independent IT research organisation. With its core research activities underpinning a range of services, from research and consulting to events and publishing, Bloor Research is committed to turning knowledge into client value across all of its products and engagements. Our objectives are:

- Save clients' time by providing comparison and analysis that is clear and succinct.
- Update clients' expertise, enabling them to have a clear understanding of IT issues and facts and validate existing technology strategies.
- Bring an independent perspective, minimising the inherent risks of product selection and decision-making.
- Communicate our visionary perspective of the future of IT.

Founded in 1989, Bloor Research is one of the world's leading IT research, analysis and consultancy organisations—distributing research and analysis to IT user and vendor organisations throughout the world via online subscriptions, tailored research services and consultancy projects.

About the author

Philip Howard
Research Director - Data

Philip started in the computer industry way back in 1973 and has variously worked as a systems analyst, programmer and salesperson, as well as in marketing and product management, for a variety of companies including GEC Marconi, GPT, Philips Data Systems, Raytheon and NCR.

After a quarter of a century of not being his own boss Philip set up what is now P3ST (Wordsmiths) Ltd in 1992 and his first client was Bloor Research (then ButlerBloor), with Philip working for the company as an associate analyst. His relationship with Bloor Research has continued since that time and he is now Research Director. His practice area encompasses anything to do with data and content and he has five further analysts working with him in this area. While maintaining an overview of the whole space Philip himself specialises in databases, data management, data integration, data quality, data federation, master data management, data governance and data warehousing. He also has an interest in event stream/complex event processing.

In addition to the numerous reports Philip has written on behalf of Bloor Research, Philip also contributes regularly to www.IT-Director.com and www.IT-Analysis.com and was previously the editor of both "Application Development News" and "Operating System News" on behalf of Cambridge Market Intelligence (CMI). He has also contributed to various magazines and published a number of reports published by companies such as CMI and The Financial Times.

Away from work, Philip's primary leisure activities are canal boats, skiing, playing Bridge (at which he is a Life Master) and walking the dog.

Copyright & disclaimer

2nd Floor,
145–157 St John Street
LONDON,
EC1V 4PY, United Kingdom

Tel: +44 (0)207 043 9750
Fax: +44 (0)207 043 9748
Web: www.BloorResearch.com
email: info@BloorResearch.com