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# Intelligence Tools – Collecting, Storing, and Disseminating Intelligence

## INTRODUCTION: INTELLIGENCE TOOLS AS A KEY SUCCESS FACTOR OF WORLD CLASS MARKET INTELLIGENCE

When ambitiously developing MI activities, the need emerges quickly for the intelligence professionals to adopt tools and techniques to help manage the collection, processing, storage, and delivery of the information content. Frequently used tools and techniques include needs analysis questionnaires, information collection templates, and a wide variety of analysis frameworks and approaches, to name just a few. However, by far the most central tool in running a world class intelligence program is an intelligence portal; software that has been designed to support the intelligence activity both at the production end and in accessing and contributing to the deliverables. Hence we will limit the focus in this chapter to intelligence portals only.

An intelligence portal provides a single user interface to screened and organized information content from both external and internal sources. Companies around the world are using a wide range of IT solutions for the general purpose of managing and processing business information; however, the best intelligence portals have been specifically designed and developed to support the requirements of the corporate intelligence process, and the eventual configuration of the software typically follows each company's own intelligence process flow. An intelligence portal usually nests in the organization's intranet and is hosted either in the company's own IT infrastructure or by an external service provider.

An intelligence portal is one of the most tangible elements of an intelligence program, and as such serves as a natural centerpiece of an MI program, even though people, not the software, are doing most of the value-adding intelligence work. Unlike the intelligence process or culture, or other abstract concepts associated with intelligence activities such as needs analyses and workshops, an intelligence portal has a concrete look and feel, and this makes it a great marketing vehicle for the intelligence deliverables and indeed the entire MI program.

While no single intelligence portal will contain all information that decision-makers may want at their fingertips at a given point in time, the efficiency of an intelligence program is greatly enhanced

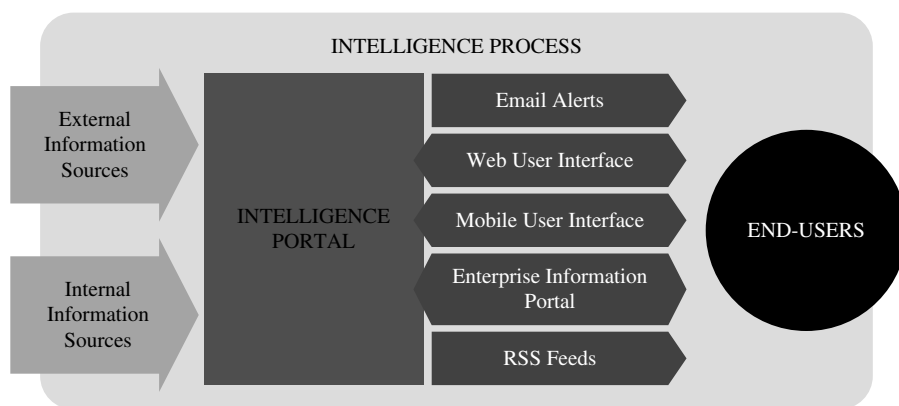
by people simply knowing where to start looking for high quality business information when the need arises, and whom to turn to, when the readily available information will not suffice. Also, efficiencies are achieved by decision-makers gaining continuous exposure to relevant business information through automated and personalized alert services about new and updated information that is being stored and delivered through the intelligence software.

In addition to enhancing the efficiency of storing and delivering business information and providing a tangible platform for marketing the intelligence activity to its internal audiences, an intelligence portal will help maintain the continuity of the intelligence activity at times when either the producers or users of the intelligence deliverables change.

Finally, an intelligence portal facilitates the gradual build-up of an intelligence culture by enabling a two-way flow of information among the user base of the intelligence deliverables: “the wisdom of crowds” applies in the corporate setting in that no centralized intelligence team will be able to deliver all relevant business information to the corporate user base in a one-way manner, but the wisdom of the entire organization should be tapped into for the best results. Again, an intelligence portal will not do this on behalf of the organization, but the best portals will facilitate the process.

Figure 7.1 illustrates the role of an intelligence portal in facilitating the two-way flow of intelligence content: channeling information from a variety of sources to its end users, and serving as a platform for the end users to share their own insights in return.

Although there is a distinct niche market for software specifically aimed at supporting the intelligence process, in reality many companies maintain a combination of different software tools that together respond to the company’s intelligence needs. The reasons range from challenges in pure technical integration to confidentiality issues, and most companies seem to have settled with some sort of coexistence among different tools that serve different purposes.



Source: Global Intelligence Alliance.

**Figure 7.1** The intelligence portal plays an integral part in providing access to the intelligence content and facilitating collaboration among MI users

## GETTING STARTED: PLANNING AND IMPLEMENTING AN INTELLIGENCE PORTAL

There are numerous options for intelligence software, and what will eventually suit a company's needs best will be largely determined by its intelligence process and organization. Most BI tools, frequently also referred to as “number crunching software” are typically considered inappropriate as they focus on quantitative information, whereas, the focus in intelligence system implementation is on qualitative information and processes.

Essentially, a good intelligence portal (Figure 7.2) contributes to the quality with which the intelligence process is run: starting with the information collection phase, an intelligence portal that has been specifically designed to support intelligence work will smother the process flow of any intelligence assignment, whether continuous or ad hoc.

- First, a good intelligence portal pulls in information feeds from a variety of sources, that way easing the process of collecting raw pieces of data. The portal may also



Source: Global Intelligence Alliance.

**Figure 7.2** 7.2 Screen shots of an intelligence portal, the Intelligence Plaza®

contain a list of additional sources (information about access and potential fees included) that may be useful in specific assignments.

- Intelligence portals may also be helpful in tapping into the internal and external sources of primary information, where secondary sources will not be enough to provide the information that's needed.
- For the analysis phase, a good intelligence portal can provide a range of support functionalities, such as project management support and different types of analysis frameworks. Indeed if the analyst team in the company is large (including more than 10–15 people), everyone involved in a project using a centralized interface and the same frameworks may greatly accelerate the completion of the project. Also, as many of the end users of the information will have a great deal of insight about the topics on the radar, features that enable easy collaboration and co-creation of content will add to the level of analysis of the intelligence deliverables.
- Finally, with the mobile devices becoming increasingly sophisticated, smart delivery formats of the produced content will add to the impact of the eventual intelligence deliverables and hence the quality of the intelligence process. If decision-makers can easily read the major conclusions of an analysis project from their mobile device and only later dig deeper into the background of the analysis, the probability simply increases that the vital intelligence content – at least the core of it – has reached everyone that should be aware of it.

Good intelligence portals can also contribute to the quality of the entire intelligence program by providing the administrators with insight into the activity of the internal intelligence community. Those running the intelligence program should have access to statistics about the frequency with which different types of content are received, the popularity of content items, the preferred delivery formats of content, and the usage of different support tools such as analysis frameworks. Based on this information, the intelligence program managers can direct their program development and marketing efforts towards the greatest impact and benefits for the organization.

## **IT DEPARTMENTS SEEKING MANAGEABILITY AND COST-EFFICIENCY**

Over the recent years, browser-based web application platforms have established themselves as the nodal point for internal collaboration and document management in many large organizations. Microsoft's SharePoint has become a de facto standard as the channel for accessing corporate tools and applications.

Frequently, IT departments are pushing this development in the interest of bringing simplicity and cost-efficiency to managing the wide range of IT solutions that serve the different functions of the organization. From the end users' point of view, drivers for the development towards a single platform include ease of access (single sign-on is often required, as typical users do not want to

maintain multiple user IDs and passwords), and also the complexity related to using a wide array of software applications. It has become challenging for users to keep track of different interfaces, navigation structures, web addresses, and site owners.

In practice, the increasing dominance of central IT platforms has meant that the applications that support a particular program or function will need to integrate to the main platform, most often SharePoint. At the very least the user's experience should resemble a seamless one even though the tools would not be technically integrated in the background. As a result, corporate functions have also started exploring the possibilities of using SharePoint not only as an access channel but as the very solution to the function's information management needs.

MI tools are no exception among the corporate software tools. Many companies adopting them nowadays require that they either connect to corporate intranets and other relevant applications through RSS feeds, or, increasingly, that they integrate seamlessly with the corporate intranet.

## STANDALONE SOFTWARE OR A SHAREPOINT SOLUTION?

At the time of writing this, MI applications built in to SharePoint are still rare in the market, and they co-exist with well-established standalone software tools that emerged during the early years of 2000 in the absence of standard solutions. Here, we refer to commercial products; home-grown IT solutions will continue to exist in many organizations. We will, however, recommend commercial software solutions throughout this book, since there is little evidence of companies successfully managing to run home-grown MI software solutions that would both respond to the specific requirements of MI processes and prevent the internal IT costs from mounting due to the lack of IT skills of typical MI professionals. See the case example *Selecting a Standalone Intelligence Software at Heineken Portugal*.

Both SharePoint and standalone software solutions have their merits. A standalone MI software "stands alone": when something changes in the corporate intranet platform, one merely needs to worry about re-establishing connectivity, such as access routes and potential feed arrangements. A standalone software is also very quick and easy to implement. Typically a SaaS (Software as a Service) solution, it requires close to nothing from the corporate IT, and also very limited technical input from the MI professionals. Further, the market niche for standalone MI software products is well established, and most of the solutions available are widely used and market-proven. A standalone MI software is a safe and professional choice, with well-established product support.

A SharePoint MI software solution as a commercial product is still only making its way to the market. Essentially it bridges the gap between the need to respond to the MI process requirements and the need to seamlessly integrate with the corporate intranet. With the constantly improving collaboration and navigation functionalities of SharePoint and the competing IT platforms, many companies have over the recent years decided to go with building MI tools using the readily available functionalities that SharePoint offers.

However, the readily available functionalities do not mean that they will always be easy to use or even look appealing, and many companies have come to realize that the expertise required to build MI tool functionalities is beyond the skills of their MI professionals. The IT departments, on the other hand, are typically not familiar with the specific needs of the MI functions: information taxonomies, types of deliverables, email alerting needs, project support, information channeling, and so forth are rarely known to the IT professionals. As a result, internal development projects easily end up consuming a lot of time and effort without necessarily reaching the goals that were set in the first place.

As a response to the mismatch of IT and MI resources in a typical company, Global Intelligence Alliance (GIA) has invested in developing its Intelligence Plaza® product for SharePoint specifically. The product leverages GIA's consultative expertise in MI processes on one hand, and SharePoint's own tools and functionalities on the other. Technically, the product is just another SharePoint site; however, it has the look and feel and functionalities of a full-blown commercial MI application.

The future will see this sort of SharePoint applications for MI becoming common in large companies, first as on premise installed solutions. Over time, they will also become available as SaaS solutions, reducing the need for involvement from the internal IT department to the minimum.

### **Case: Selecting a Standalone Intelligence Software at Heineken Portugal**

Heineken in Portugal started implementing an intelligence program in 2008 in response to the demand for more sophisticated MI by the top management. It soon became apparent that IT tools were a bottleneck in Heineken's effort to reach advanced levels on the MI Roadmap and serve the increasing internal MI user base. The company subsequently started evaluating the intelligence software options available in the market.

Heineken then went through a systematic software selection process:

- Several alternative MI tools were studied through webinars
- Demo versions were tested, comparing functionalities
- The Intelligence Plaza® stood out in terms of end user friendliness, scalability, and customer service
- Heineken Group's strict technical requirements were passed for the Intelligence Plaza®

In less than one month's time, a customized pilot version of the Intelligence Plaza® was up and running for Heineken's internal tests in the organization. After an additional two months of testing and piloting, the final solution was implemented and rolled out to the users.

## FEATURES TO PAY ATTENTION TO WHEN SELECTING INTELLIGENCE SOFTWARE

There are a variety of technical features and functionalities in software tools that can assist the intelligence team to provide great services and the end users to add their own contribution. We have compiled a list of features that have generally proved most valuable and appreciated in global organizations, and that may help the reader assess the options when considering the implementation of intelligence software.

- Content management features
  - Storing content in a database and adding metadata
  - Categorization of content (taxonomy)
  - Searching and indexing
  - Automatic translation
  - Visualization tools and maps
  - Usage monitoring and statistics
- Data sourcing and input features
  - Web crawling/monitoring
  - RSS feed management
  - Input through a web interface
  - Input through a smartphone interface
  - Ability to do microblogging and use shoutboxes
  - Integration with external data sources (customer relationships management, enterprise resource planning, application programming interface)
- Security
  - Secure authentication and authorization
  - Encrypted data storage and/or transfer
  - Granular access rights of users
  - Single sign-on to save the user from the trouble of logging in separately to the intelligence portal
- Dissemination (“push” from the intelligence team to the MI users)

- Automated, personalized email alerts to the users
- Newsletter generator and group email functionalities
- Integration of external user interfaces (API, XML, RSS, SharePoint)
- Self-service access (“pull” by the MI users)
  - Dashboards of content that can be customized
  - Sophisticated search tools
  - Analysis tools for text-based content (news trends, tag clouds, text-mining, semantic analysis)
  - Analysis tools for quantitative data (charting, etc.)
  - Benchmarking (products, companies, markets)
  - Smartphone user interface/application
- Collaboration
  - Commenting on content items
  - Discussion forums and/or threads
  - User groups and facilitation of networking
  - Media and social network monitoring and analytics tools

Another angle to the features and functionalities of intelligence software is the interest group perspective. There are four distinct groups of stakeholders to an intelligence portal in any organization, as has been illustrated in Table 7.1.

- The analysts need to consider how to best make available the content to the end users, manage the content in the system, and collaborate among the analyst team and with the end users.

**Table 7.1** Interest groups to an intelligence portal

ANALYST VIEW	HEAD OF MI VIEW
Self-service access	Content management
Content management	Data sourcing and input
Collaboration	Dissemination
USER VIEW	IT VIEW
Collaboration	Security
Dissemination	Data sourcing and input
Self-service access	Dissemination



- The head of MI, in turn, is most interested in internal marketing and branding of MI, usage statistics, managing data sourcing, and making sure that the content will reach the users in an optimal way
- The users, in addition to being interested in receiving timely and relevant information at their preferred frequency and in a preferred format, will appreciate features that make it easy and engaging to collaborate with the intelligence team and the other users.
- Finally, an important control group is IT; information security and compatibility issues may not be of immediate interest to the users or even to the MI team, yet they need to be properly addressed from the beginning to ensure smooth and secure operation of the intelligence portal and indeed the entire intelligence program

Companies today are relying increasingly on information that is collected from both external and internal sources, and on increasing collaboration between these two sources. To facilitate this collaboration, intelligence software tools will provide features that support the co-creation of MI: crowd forecasting is one example. Group analysis where several people can contribute to the same pieces of analysis will be more common.

Twitter, Facebook, and other social media platforms are increasingly used as sources of information in the corporate intelligence programs. Channeling content from these sources to the eventual intelligence deliverables is one of the areas where intelligence software can aid the smooth flow of the intelligence process in the future.

On the other hand, with the rapid adoption of social media platforms in the public domain, many companies are also looking to add similar features to their intelligence portals in the interest of increasing collaboration and knowledge sharing among their intelligence community both within business units and between them.

Mobile interfaces have been developed to intelligence portals for years already; however, with the increasingly widespread usage of smartphones and eReaders, they are now genuinely shaping the ways in which business information is shared. For many people, a mobile device is already the primary interface through which information is received, and this sets new requirements for the format in which analytical conclusions should be delivered for them to be digested as well. On the other hand, the mobile interface also offers new possibilities for sharing emerging information in a timely manner, and hopes are high in many companies for the mobile community to start participating in the creation of intelligence content more actively than they have historically.

The multiple formats in which MI is available today, ranging from text and charts to audio files and videos, introduce new challenges to how companies manage MI input and output. While there may seem to be more decentralization in the collection of business information, there also needs to be more centralization in how all this information is filtered, analyzed, and distributed.

### **Case: Weighing the Pros and Cons between Dedicated Intelligence Software and an Internal IT Development Project**

In an effort to make sure that the insights produced by the intelligence team would be easily available to its MI users, a global IT services company decided to adopt an intelligence portal.

At the time, the IT department in the company was running a pilot of MS SharePoint, and since much of the functionality they thought was needed was already available in SharePoint, the company ended up trying to establish an intelligence portal on their own.

Eight months were subsequently spent trying to build their own MI tool on SharePoint. While the idea had worked nicely in theory, the project soon ran into challenges that were not anticipated at first:

- It is surprisingly time-consuming and therefore expensive to try to develop an application in-house that can reliably perform sophisticated tasks
- The internal IT people were IT experts, yet they had no expertise in intelligence processes, so articulating the intelligence team's requirements to them proved difficult
- The analysts, in turn, were experts in the intelligence work, but, as was discovered the hard way, they were not SharePoint developers
- Finally, even if the company had managed to develop a satisfactory MI tool, it would have required continuous efforts from both the analyst team and the internal IT team to maintain and develop it according to the evolving needs: this is not free, either

Having weighed up the options the company concluded that it would pay to go with a readily available software solution rather than venturing into an internal IT project for which there was no end in sight. Also, getting business analysts to do SharePoint development would be a major waste of high-value analyst time.

Success factors in the eventual implementation process of the intelligence portal included:

- Sufficient budget and senior level sponsorship
- Understanding the internal customers and what they really need. In some cases, they weren't even sure themselves, so the intelligence team often had to interpret on their behalf
- A simple, clear, easy to use interface

- An effective taxonomy
- Daily email alerts are key to making people aware of the centralized intelligence tool
- Getting local champions to further boost internal marketing and to increase people's involvement
- Putting effort into an internal communications plan to support the rollout

## CONTINUOUS DEVELOPMENT: TOWARDS WORLD CLASS LEVELS IN INTELLIGENCE TOOLS

### ENHANCING COLLABORATION AND CO-CREATION IN THE INTELLIGENCE PROGRAM

Purchasing and implementing intelligence software is easy in the sense that the early phases only take some financial and project management resources. Of course justifying these may be challenging enough if there are legacy issues such as other software tools in use, or the intelligence investment lacks support from senior management. These obstacles are still considered technical in nature, however. What eventually determines the success of any intelligence portal is how its users adopt it.

Characteristics of a world class intelligence portal include that it has gathered an active user base around it that not only pulls out intelligence from it, but also frequently shares their own knowledge about new developments in the business environment. Essentially, a world class intelligence portal facilitates the formation of a knowledge-sharing intelligence community in the organization.

Considering the technical angle, world-class intelligence software has sophisticated functionalities, yet it is not meaningful to nail down exactly what features should be included and what should not, as the requirements vary greatly between organizations. Powerful tools for categorizing data and allowing the individual users to subscribe to whatever categories they find interesting are at the core of any high-quality intelligence software, but the software tools available in the market today no longer differ much from each other on that front. Rather, emphasis should now be placed on functionalities that support active, two-way utilization of the portal regardless of where the user is located. In that sense, featuring multiple user interfaces (such as web, smartphone, and tablet computer) is increasingly critical for engaging the users.

At world class levels, the intelligence portal should also seamlessly link with other IT applications ranging from the corporate intranet to more specific niche tools. Full-blown systems integration is not yet common, but different systems should discuss with each other in a way that does not disturb the user.

### **Case: SharePoint Integration in a Paints and Coatings Company**

A leading paints and coatings company in Northern Europe has implemented innovative ways to deliver intelligence to decision-makers and adapt to their working practices. The management of the company uses a specially designed dashboard, built on Microsoft SharePoint, to get access to various types of information they need in their work. The intelligence team decided to use it as a delivery channel for MI. The two systems were integrated so that competitor and MI show up directly on the management dashboard. This way the management is able to access this information easily using just one access point, while the intelligence team can continue to use its own dedicated intelligence portal to manage the market monitoring process.

What also has been explored but has not materialized yet to the extent that would have a major impact on today's intelligence programs are artificial intelligence applications, text mining tools for analysis support and tools that utilize geographical positioning data. While these advanced applications described above still remain as developments for the future, the currently active development areas include the capability for further collaboration, improved user experiences both in and outside of the office, better reporting tools that allow for multimedia formats, and better integration of MI results into executive dashboards and other internal systems.

Intelligence portal features frequently associated with enabling the above functionalities include:

- Software front pages to become intelligence dashboards that are easy for users to personalize
- Newsletter-style, designed email alerts on desktops
- Capability to personalize RSS feeds
- Ability to add user comments to content items
- Ability to socialize virtually around intelligence topics through own personal profiles and discussion forums
- Advanced reporting tools to support analytical interpretation of business information
- Lightweight web user interfaces to enable full access from smartphones
- Email alerts to support smartphone interfaces
- Improved technical connectivity between intelligence software and corporate intranets

## SUMMARY

- An intelligence portal is one of the most tangible elements of an intelligence program. As such, it serves as a natural centerpiece of an MI program, even though people are doing most of the value-adding intelligence work.
- Unlike the intelligence process or culture, or other abstract concepts associated with intelligence activities such as needs analyses and workshops, an intelligence portal has a concrete look and feel, and this makes it a great marketing vehicle for the intelligence deliverables and indeed the entire MI program.
- There is an established market for commercial software applications to support the specific requirements of MI processes. However, the advanced functionalities nowadays included in the corporate intranet platforms such as SharePoint have encouraged some companies to build up home-grown solutions. Experience shows, however, that commercial applications are still in demand: new possibilities offered by SharePoint have not turned MI professionals into application developers, nor have they made the IT professionals better at understanding MI processes. As a result, a market niche for SharePoint MI software applications is emerging.
- Useful features and aspects to consider when implementing an intelligence portal include:
  - Content management
  - Data sourcing and input features
  - Security
  - Dissemination (“push” from the intelligence team to the MI users)
  - Self-service access (“pull” by the MI users)
  - Collaboration
- Being world class in intelligence tools:
  - All relevant intelligence content is stored in one searchable database
  - Personalized email alerts of market developments and new relevant content are being sent to the MI users on a regular basis
  - The functionalities support all phases in the intelligence process
  - The functionalities facilitate the sharing of field intelligence, networking, and co-creation of intelligence deliverables through an engaging user experience comparable to the existing social media applications
  - The functionalities enable integration of intelligence content to various user interfaces (mobile, SharePoint, etc.) and business processes.