Digital Intelligence research and analysis, Social Media research and Internet mining, using Enterprise Intelligence Software

An overview for knowledge economists and information professionals
Intelligence in the Internet age

Digital Intelligence and Social Media Research

The rapid evolution of digital communications technologies has also brought about a revolution. By enabling the dissemination of information, knowledge, ideas and opinion to a universal audience; and direct and immediate exchanges between individuals and groups, as well as organisations; it has supported research and technological advancement, social and political change and the expansion of the knowledge economy. In so far as ‘knowledge is power’ this opening of Pandora’s Box has also tipped the balance of power from where it once was, in a number of directions, with perhaps unanticipated consequences. So, as a source of strategic and commercial intelligence, what may be harvested from the digital environment has suddenly become extremely important.

Structured and unstructured data

At the same time and as part of this process, the digitisation of knowledge has proceeded at an exponential rate. This has included the formal, structured publication of resources and archives; in part as an intentional democratisation of information supply; in part to reach and give access to the distributed, specialist or global communities to which that material most relates; and in part because digital solutions make the storage, cataloguing and retrieval of data and digitised content possible on a massive scale, whilst being practical, efficient and cost effective.

The joining up of an ‘information superhighway’ to support education was an aspirational outcome that the combination of digital resources, the Internet and the World Wide Web has in practice made possible. However, because the entry level requirements of digital publishing technology are low, access is available to virtually anyone to contribute as well as receive; and this together with the openness of digital environments to un-modерated material, means that there has been an explosion
of comparatively unstructured and unregulated user-generated content as well, representing both the activities of individuals and of communities of interest.

**Managing change**

Some of this, fostered by entrepreneurial endeavour, has in effect given rise to an infinite public forum that has bypassed the established gatekeeper positions of various service sector industries. Marketing and Communications, Brand Management, Recruitment and Selection, Public Relations and Advertising, are among the more obvious examples of this. Facebook, Twitter, LinkedIn, YouTube and other social media communities have significantly undermined the traditional approaches and business models of these activities.

Add to this the impact of mobile devices—smart phones and tablets; which magnify the possibilities of anybody accessing and adding to this vast resource from almost anywhere, including whilst on the move; and the sheer scale of this tidal wave of information becomes apparent. With this awareness has come the realisation that this is something that has already happened—that markets, expectations and attitudes have moved on; that there is both good and bad in this; and that there is potential advantage to be gained by mining and monitoring the streams of data, or that disaster may be averted by doing so. The apparent problem is the overwhelming amount of information available and the difficulties of finding the needle within the digital haystack that is of real value.

**Infinite resources**

One man’s information overload is another man’s infinite resource. The Internet as a whole including the libraries, databases and archives it connects to, the billions of pages of the World Wide Web, wikis as collective depositories of knowledge, blogs as broadcast expressions of ideas, opinion and comment—and social media, either as networks of friends, or professional groups, are all now part of the digital intelligence ocean. So too are the pay wall protected data sources of the Financial Services sector and other specialised commercial interests such as Pharmaceuticals. The latter may not be publicly available; they are, however, connected and accessible with permissions. All of this is in
principle therefore available for research and analysis purposes and it is being continually added to in real time. So, the analyst’s resources are indeed practically infinite.

**Intelligent business**

Business Intelligence in all its forms is enabled and empowered by this situation. So long as the right tools are used to leverage and distil the huge amount of information that is available and assist with its insightful interpretation, the digital environment yields valuable insights, offers extensive reach and gives quick access to knowledge; thus supporting informed judgement and strategic thinking in fast moving, increasingly competitive, global markets. In the Knowledge Economy, it is what you know that differentiates you from the competition. Today’s intelligent business has to stay permanently ahead of the game in order to be sustainable. So, let technology do the heavy lifting: the best way of achieving this position is with the support of Enterprise Intelligence Software.

**Listening to the noise, distilling meaning and digging for gold**

The role and importance of pre-digital media channels (newspapers, magazines, TV, for example) has been diminished by the rise of digital technologies and the many facets of digital marketing that are evidence based and may be integrated and data-driven. This was emphatically demonstrated by luxury brand Burberry’s innovative 2010/2011 strategy and the subsequent announcement that was made at the beginning of September 2011 that it would be putting 60% of its marketing budget into digital marketing. In a survey of marketers conducted earlier in the year (Focus Marketers’ Benchmark Survey, May 2011) social media monitoring was seen as an investment priority and understanding the consumer in order to build brands and acquire leads in today’s customer-focused, market-led, economy—a necessity.

Sifting social media; crowd sourced market research that is reliably objective; competitor intelligence that clearly identifies strengths and weaknesses; thought leadership that establishes credibility and influences opinion formers; horizon scanning for identifying business opportunities, forward planning and risk management; brand ‘friending’ to maximise retail sales and retain loyalty; pre-emptive
product development; spotting long tail markets; and the relationship management of 'intervention marketing' to turn negative situations into good PR; are the new imperatives. This means listening to the digital noise, distilling meaning through concept analysis and digging for gold among the nuggets of information that are retrieved.

As a consequence Digital Intelligence and Social Media Research have become the new ‘capital’ of the Knowledge Economy.

What is Enterprise Intelligence Software?

Enterprise Intelligence Software has been evolving for over a decade and has now reached a level of maturity that makes it indispensible for all types of information gathering, analysis and research. Since the arrival of the Internet, knowledge, communications and archived materials have transformed into massive, unstructured, widely distributed, digital resources. These are continually being added to by the data and publications of academia, public institutions, government and commercial interests, though much lies beyond formal organisation and control in social and self-published content.

In simple terms the technology significantly extends the reach of human intelligence and multiplies its capacity to find relevant information hugely. At the same time its artificial intelligence helps identify concepts and trends within what is being gathered and supports the analysis of it. Allied to suitable expertise and insight this is a powerful combination that may accelerate the research process, improve its reliability, uncover unknown sources and reveal patterns and interconnections that are not obvious, or show faceted directions for further investigation.

It differs from conventional search software by seeking to identify meaning and progressively collecting and pursuing the corresponding information. It is capable of complex search concepts and does not simply return the most promoted content from a maintained index. The accumulation of intelligence is on-going and although it typically targets Internet Intelligence other data sources may be connected too. It is able to access digital resources behind user names and passwords and may annex the output of another retrieval system as one of the specified sources it attaches to. Chance
findings may also be added to the knowledgebase manually. Enterprise Intelligence Software is capable of monitoring social networks as well.

The integrity of the information found is also a differentiating factor. A supporting suite enables evaluation, collation, assessment, additive input, analysis, collaboration and the output of information in easy to digest publication channels. The workflow process is essentially as follows:

1. Assess requirement and establish goals
2. Identify primary and secondary discovery query components
3. Connect sources
4. Attach aggregated information streams
5. Run and evaluate
6. Manage meaning interpretation
7. Identify concepts
8. Follow leads
9. Analyse
10. Cyclical refinements: adjust / improve / extend
11. Share information
12. Reports and recommendations

This practical approach may easily be mapped to the conceptual model of the Intelligence Cycle:

- Direction
- Collection
- Processing
- Analysis
- Dissemination
- Feedback

Or, it may be used to apply Porter's 5 Forces Analysis Model for Competitive Strategy development:

- Intensity of competitive rivalry
- Threat from new entrants
- Threat from substitutes
- Bargaining power of buyers
- Bargaining power of suppliers

What is it used for?

The software used by Magus Digital for its Digital Intelligence Research and Analysis, Social Media Research and Internet Mining, is at the forefront of the field. It is a genuine Enterprise Intelligence system that enables internet monitoring, internet intelligence development and evidence-based horizon scanning, for use in competitive intelligence, market assessment, brand and reputation management, informed product development, passive crowd sourcing, anti-money laundering, pre-employment screening, e-discovery, identification of early warning signals and assessment of security, threat and risk. Deployed in multiple countries, languages and industries this innovative solution is used in the most demanding of information processing environments.

What it does is find information and monitor what is being said or published. What it is used for is entirely dependent on how it is deployed. Logical applications of this technology include identifying skills shortages, business futures analysis and market research.
How is this different from other solutions?

There are admittedly other versions of this type of technology and alternative approaches to dealing with situations that require information harvesting, so opinions may differ as to which is best for any given application. Obviously it is possible to manually research topics, with or without the assistance of a selection of tools.

Apart from the magnification of research capacity and comparative speed with which relevant content may be located, the differentiator is usually the emphasis on continual information finding and concept extraction, which Enterprise Intelligence Software offers, as opposed to systems that are essentially automated press-clipping collection software, which make no attempt to interpret the meaning of what they find or to persistently search for something you are looking for that may or may not be out there. The ability to selectively point it at a variety of data sources, to draw in aggregated information and attach predefined source modules for information collection that targets knowledge in specific industries or sectors is also a defining factor. As indeed is the fact that it may be attached directly to the most prominent social networks.

Magus Digital’s Strategic Media Consultancy

Magus Digital has a strong background in digital technologies and environments and is able to call on extensive experience and expertise, which encompasses a wide range of interrelated possibilities. At first sight some these subject specialisms may not appear directly connected, however, Magus Digital’s insight into how solutions can work together and how technology may be applied is its strength in a world increasingly underpinned by communications channels, production systems and deliverable outcomes that are all digitally enabled. The application of this understanding to assist clients to make sense and take advantage of the rapidly evolving markets in which their businesses must compete and be sustainable is what Strategic Media Consultancy is.
Magus Digital's extensive practical experience of Digital Intelligence Research and Analysis, Social Media Research and Internet Mining for information harvesting is matched by an equal appreciation of digital marketing methods and technologies, with a particular emphasis on Data-driven Integrated Marketing and Variable Data Publication. Together with its customer-focus and usability consultancy this provides creative insight and innovative thinking for forward looking solutions and supports the strategic planning of tactical positioning and objectives in real Business Strategy development, as opposed to the Policy Strategies that many organisations rely on. An understanding of today's multi-channel, multi-platform and multi-device marketplace, where media convergence and fragmented 'tribal' audiences are considerations, supports these activities.

As well as content creation for online and multimedia deliverables, video and interactive presentations, Magus Digital’s background includes professional writing, photography and design direction, for books and magazines; and the management and direction of Corporate Website and Content Management System implementation projects. This explains a particular interest in the future of publishing, where it is believed that the technologies that are eroding its traditional markets also offer the potential for a renaissance.

The almost unique combination of skills available here has already provided path finding direction to Variable Data Publication applications for marketing and as a result Magus Digital benefits from the experience of leading a co-developed project in this area that has taken three UK industry awards and was subsequently shortlisted for a fourth.

**Taking things forward**

If there is interest in taking any, or all, of these ideas, or new ideas prompted by the concepts presented here, forward, on a consultancy basis; or if the support and guidance of a client's agent is required to help implement change, or embrace technology, in Business Intelligence, Marketing, Communications and Brand Management, or professional or academic research (including in Financial Services and Investment Banking, or Research Librarianship and the Subject Hubs of Library and Information Services), Magus Digital would be happy to discuss opportunities and explore ways of supporting clients and stakeholders in their future ventures.

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