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# MASTERING DATA DEMOCRACY

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## AN INSIGHT REPORT WHITE PAPER

**Today's extended enterprises are taking advantage of a widening selection of technologies that allow for universal publication and dissemination of various media types.**

**The new frontier is Web Reporting and Data Analysis technology: software that turns the Internet's data tables, static charts and graphs into new forms of interactive, data-driven insights.**

**This frontier is led by Databeacon.**

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## **EXECUTIVE SUMMARY**

Extended enterprises have embraced the Internet to provide a myriad of interactive media types to information consumers, but providing interactive online data has been challenging, with static reports, HTML tables, PDFs and spreadsheets substituting for the powerful, self-personalized online experiences people expect in the Internet era.

A new class of Web Reporting and Data Analysis software offers information consumers a way to get insight out of the data that affects their world, and information providers a way to create new revenue streams, increase loyalty and expand into new markets.

This paper discusses the trends and technology influences that have created the need for Web Reporting and Data Analysis technologies, along with recommendations for those technologies.

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## THE DATA IMPERATIVE

From the location and type of terrorist attacks to the clinical trial results of potentially life-saving drugs to market research that can make or break global enterprises and economies, the demand for data-driven insight about factors that affect our world has never been greater.

Mass visibility is no longer an option, it's an imperative born from the need to analyze situations and know, now, what's happening around the globe. The emergence of database-enabled Web portals has shown it is viable to meet this imperative.

It is increasingly common for information consumers of all types to subscribe to and inhabit content-enabled communities that deliver everything from health and safety statistics to equity portfolio information. For information providers, getting insight out is the name of the game.

## MASS VISIBILITY REQUIRES MASS DISSEMINATION

To understand how this game can be played out technologically, we need to examine how electronic information is moving to mass audiences. Daily, most of us use technologies

like Acrobat, Flash, and RealPlayer. We are joined by huge Internet-based populations of information consumers who are also taking advantage of a widening selection of software technologies that allow for universal publication and dissemination of various media types. The norm for these technologies allow each information consumer to shape his or her interaction as something unique, so that no document, home page or jazz collection will be experienced precisely the same way.

## THE NEW DEMAND: SIMPLICITY WITH SOPHISTICATION

On the Internet, the information power is definitely moving to the people. They have come to expect that the software they use will require no training, manual or software installation. They click and it happens. If it doesn't happen, they leave.

Yet along with all that simplicity, information consumers also expect sophistication and desktop integration capabilities, so that if they want to magnify and deepen their online experience, they can with a few more clicks on a toolbar.

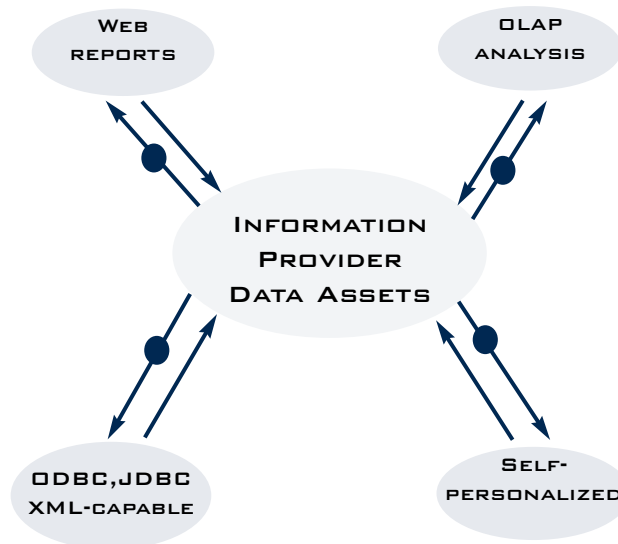
Ironically, while this Internet-era democratization has transformed the

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### STATIC DATA PROVISION



### INTERACTIVE WEB REPORTING



With Web Reporting technologies, the relationship between information providers and information consumers changes from a one-way street with static data trickling out at timed intervals to a dynamic online experience. This experience features interactive reports, OLAP analysis, and self-personalization to view, create and collaborate, all in an architecture that supports a wide array of data sources including ODBC, JDBC and XML

INTERNET-ERA INFORMATION PROVIDERS UNDERSTAND THE MOST POWERFUL, MEANINGFUL SOLUTIONS RESIDE IN THE MINDS AND FINGERTIPS OF INDIVIDUAL INFORMATION CONSUMERS

consumption of complex file types in the realms of online music (MP3), digital documents (Acrobat) and digital photography (JPEG), a similar democratization of numerical data – the bread and butter of computing – has for the most part not occurred. Why not?

Because even in the Internet era data is typically viewed as something that should be sheltered behind firewalls and locked in large enterprise systems, or trickled out in static reports, HTML tables, PDFs or spreadsheets. These systems are designed to preserve meaningful data interaction for the consumption of information elites, versus publish and disseminate it out for consumption by a large audience of Internet-based information consumers.

Yet for enterprises seeking to serve the reporting and analysis needs of information consumers, there is a new breed of software designed to get insight out and make data democracy a reality.

To see the utility of such tools, let's consider an example related to the provision of health data. An information provider specializing in the

delivery of medication-related patient experiences in the health sector needs a way to publish its data in a variety of formats and at different levels of aggregation without developing hundreds of specific reports or investing in a complicated IT infrastructure.

There are two types of information consumers within pharmaceutical companies interested in using this data: A pharmaceutical company's brand marketing team needs the patient experience data to influence a physician's prescribing behavior. Meanwhile, physicians and hospitals are interested in the data to learn more about how a product is being used; how effective it is among different user populations; general patient health; medication satisfaction/compliance/tolerance and a variety of other aspects of the medication's performance.

Using Web Reporting and Data Analysis software, the information provider can, within hours, design and publish reports for its pharmaceutical clients, then allow them to perform detailed analysis of those reports on demand, even self-personalizing specific

	WEB REPORTING AND DATA ANALYSIS SOFTWARE	TRADITIONAL ENTERPRISE-CENTRIC DATA PROVISION
AUDIENCE	ONE-CLICK INFORMATION CONSUMER	POWER USER THAT TAKES TRAINING, (OR ONLINE READER THAT TACKLES HTML TABLES OR PDFS)
TYPE OF DATA DELIVERED	SELF-SERVE, ON-DEMAND, WITHIN INTERACTIVE (OLAP) REPORTING AND ANALYSIS FUNCTIONALITY	PRECONFIGURED REPORTS WITH STATIC CHARTS AND GRAPHS
NUMBER OF USERS	4 TO 6 FIGURES DISTRIBUTED WIDELY ACROSS THE INTERNET	2 TO 3 FIGURES WITH MOST BEING ENTERPRISE INTERNAL
DATA VOLUME	MILLION-RECORD FILES PUBLISHED ONLINE FROM INEXPENSIVE WEB SERVERS	TERABYTES PROTECTED BY COMPLEX AND EXPENSIVE MAINFRAMES
SCOPE OF USAGE	ANYONE WITH A BROWSER AND CONNECTION TO THE INTERNET	SELECT ENTERPRISE ELITES

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reports without the need for any IT involvement. The only requirement to view, create and collaborate on the reports is access to the Internet and a browser.

And yet, if any information consumers wish to perform more analysis on a report while offline, they can do so by simply saving their data and self-customized reports like a bookmark in their browser; a very convenient feature for globe-trotting executives (or doctors on call!).

This couldn't have been accomplished using traditional data provision solutions which offer an approach that encourages one-size-fits-all deployments of enterprise information. And because they come with fixed seat-license pricing models, such solutions are developed for use by a small group of decision makers, causing many categories of data to be a vastly underused resource.

Web Reporting and Data Analysis technologies on the other hand are Internet-based applications that understand the most powerful, most meaningful information solutions reside in the minds and fingertips of individuals, not necessarily the keepers of enterprise systems. Data democracy requires a publishing and mass dissemination model in an Internet-based world where data and the tools to gain insight from it must flow seamlessly to whoever needs it.

Industry pundits aren't surprised by the move to tear down walls that are hiding insight. In fact, IDC states that leading up to 2004, "spending priorities will shift from capturing and storing the data toward delivering the information to a wide range of users." Gartner Group says that "by 2004, 50% of Global 2000 companies will have a corporate-wide data analysis strategy." And by 2005, "70% of corporate end users in midsize and large enterprises will be data analysis users."

Finally, the huge growth of Internet-based information providers in the health, financial, e-government and market research sectors has created new requirements that cannot be filled economically or in a timely way with traditional data provision approaches that have

in the most part been built to serve internal elites.

As has been discussed, these elite audiences have received a considerable amount of training to become fluent in the use of their reporting tools. And the tool-sets in use are usually built for terabytes of data that are not the territory or of interest to the vast majority of information consumers.

As a result of the limitations to address mass audiences and a general internal organizational focus, traditional data provision approaches stall once they get outside the corporate firewall. They are typically based on the premise that the server not only holds all the data, but also performs the majority of calculations against the data. Client software offers only limited, if any, calculation capabilities. While this architecture works well for a limited user audience manipulating a large data volume, it is not suitable for decentralized provision of interactive data to Internet-based information consumers.

The new breed of Web Reporting and Data Analysis technology goes beyond merely static reports. While information providers have the ability to publish personalized data sets, information consumers also have the ability to further refine their data, enhance it with their own insights and collaborate with others. Web Reporting and Data Analysis can be thought of as the latest of three stages of data interaction for information providers. Those stages are:

#### **1) ANALOG INFORMATION DISTRIBUTION**

The methods of producing and distributing data are paper reports or perhaps CD-ROMs. If it happens, data analysis and reporting is inwardly focused (site traffic analysis, buying behavior etc.) to a small elite audience that has access to terabytes of data. Online data solutions that reach out to information consumers are in their infancy.

#### **2) DATA VIA STATIC REPORTS, HTML TABLES, PDFs, SPREADSHEETS**

Internet systems come online, and offer data outside the enterprise firewall in the form of

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POSITIONED TO GIVE INFORMATION PROVIDERS THE MOST EFFICIENT, LUCRATIVE POTENTIAL FOR THEIR ASSETS, WEB REPORTING AND DATA ANALYSIS SOFTWARE MAKES DATA DEMOCRACY REAL

automated static reports, database-driven HTML tables, online spreadsheets or downloadable PDF documents. Web reporting and analysis importance increases, with e-commerce systems often being put in place to sell the mostly static data-sets.

### **3) WEB REPORTING AND DATA ANALYSIS TO INFORMATION CONSUMERS**

At this stage it is the norm to provide interactive data for sharing inside the organization, and the core business of the organization is now oriented to publishing data online. As the size of the audience increases dramatically, the requirements for one-click Web Reporting and Data Analysis software becomes mandatory. The software must offer ease of use, ease of deployment, scalability, ease of integration into existing e-commerce and data systems, and offline usage where needed. Simply servicing static reports and/or raw data from HTML tables, PDFs or spreadsheets is not enough for organizations at this stage.

Positioned to give information providers the most efficient, lucrative potential for their assets, Data Publishing, Analysis and Reporting software makes data democracy real inside and outside the organization. In an economic environment that demands less customer churn, more customer satisfaction, and new, differentiated online product offerings from the same data sources, information providers require new technology. That technology must be able to both publish and manage the publishing of data to a large audience of Information Consumers who want to perform one simple click to get insight out.

#### **RECOMMENDATION**

Information providers should be evaluating Databeacon Inc.'s Web Reporting and Data Analysis software, including:

#### **DATABEACON INSIGHT VIEWER**

An intuitive, browser-based Java applet that automatically loads in the information consumer's browser to enable graphical analysis of Web reports with one-click simplicity.

#### **DATABEACON PUBLISHER**

This application defines and designs the structure of data to be analyzed by information consumers in a multi-dimensional Online Analytical Processing (OLAP) format.

#### **DATABEACON DEVELOPMENT TOOL**

A server-based command-line application for extracting data from a database and building a compressed Web reporting and analysis file.

#### **DATABEACON PAGEENHANCER API**

For seamless integration of Web Reporting and Data Analysis functionality inside existing Web portal applications, comes Databeacon PageEnhancer API.

Databeacon software offers multiple benefits to information consumers and the I.T. departments of information providers alike:

#### **FAST, FLEXIBLE DEPLOYMENT**

Requires no infrastructure investment, works with existing data sources including RDBMS via ODBC or JDBC; Microsoft Analysis Services for SQL; and with flat files or executable output – all on multiple platforms including Windows 95, 98, 2000 and NT; UNIX-IBM AIX, HP-UX, Sun Solaris, and LINUX.

#### **ZERO COST OF END USER OWNERSHIP**

No software purchase or installation is required on the information consumer's PC. Information providers pay only for the per processor license and maintenance fees.

#### **ACCOMMODATES VIRTUALLY UNLIMITED NUMBERS OF INFORMATION CONSUMERS**

With Databeacon, there is no need to worry about huge numbers of visitors hitting a server. Both the Web reports, data and the Databeacon Insight viewer are downloaded to the information consumer's PC, with all processing done locally allowing offline processing as well.

#### **INTUITIVE, GRAPHICAL USER INTERFACE**

The Databeacon Insight viewer is intuitive and easy to use, requiring no end user training and vastly shortening adoption time.

Databeacon has proven itself to hundreds of customers in more than 25 countries around the world. It's an implement-now solution that at last enables true data democracy.

For more information, the company's Web site is [www.databeacon.com](http://www.databeacon.com), or call 1-888-921-8360. To see the technology in action, please go to [www.storydata.com](http://www.storydata.com).

[WWW.INSIGHTREPORT.COM](http://WWW.INSIGHTREPORT.COM)

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