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**White Paper**

Analytics & Big Data

# Seven Tips for Developing an Effective Unstructured Data Analytics Program

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The world is creating 2.5 quintillion bytes of data per day from unstructured data sources like sensors, social media posts, and digital photos.<sup>4</sup>

"IDC predicts that by 2020, organizations able to analyze all relevant data and deliver actionable information will achieve an extra \$430 billion in productivity benefits over their less analytically oriented peers."<sup>5</sup>

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**"A universal truth in business is that all roads lead to data. In an increasingly complex and connected world, the ability of an organization to collect, manage, and analyze data effectively separates the winners from the runners-up."**<sup>2</sup>

## Why Unstructured Data Analytics Matters

A recent survey found that only 13 percent of organizations with a Big Data project claimed analytics was successfully adopted in their organization.<sup>1</sup> Conversely, another survey of C-suite and senior decision makers found 65 percent of respondents felt their organization was at risk of lagging behind others due to the highly competitive data landscape. So, many enterprises recognize the importance of analytics but are not using it successfully. In other words, if a company fails to take advantage of Big Data analytics, their competitors will. Failure to fuel the business with timely insights has significant downsides: business risks increase as managers make ill-advised decisions, customers and partners receive inadequate services, and sales opportunities are squandered due to incomplete or erroneous information.

Organizations are not only struggling to meet the demands associated with huge volumes of unstructured data, but they're also striving to meet stringent platform requirements that can offer speed, performance, and flexibility. IDC estimates unstructured content accounts for 90 percent of all digital data and it's locked away across different data stores, in different locations, and in varying formats.<sup>3</sup> A data silo can be hidden away within one department and secluded from the rest of the organization. This is a factor as to why Big Data projects can stumble, and why many organizations are at crossroads in search of the fastest yet most effective path to Big Data.

In this paper, [Micro Focus® Big Data](#) experts offer advice on technology considerations and share best practices to help you develop an effective unstructured data analytics program that delivers real business value. We'll suggest points to focus on when to tackle the analysis of unstructured data of text, video, image, and audio formats.

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1 "A Guide to Achieving Big Data Analytics Maturity," by Fern Halper and Dave Stodder, TDWI, July 2016

2 "Why Data is the New Business Currency," by Samuel Greengard, CIO Insights, June 7, 2016

3 "Solving the Unstructured Data Challenge," by Jaikumar Vijayan, CIO, June 25, 2015

4 "The world creates 2.5 quintillion bytes of data per day from unstructured data sources like sensors, social media posts and digital photos," by Eric Gold, LinkedIn, March 11, 2016

5 "6 Predictions For Big Data Analytics And Cognitive Computing In 2016," by Gil Press, Forbes, December 15, 2015

## Make Unstructured Data Analytics Work for You

The analysis of structured and semi-structured data from enterprise resource planning (ERP), customer relationship management (CRM), and other operational transaction systems that are captured and stored in a database or spreadsheet reveals what is happening with a business and its consumers. Unstructured data analytics fills in the picture and addresses why an event is occurring. Here are capabilities to consider when moving forward with unstructured data analytics.

### 1-Corral All Stakeholders

Create a unified view with all IT and business stakeholders. A scoping workshop brings participants together to discuss standard information analytics practices, data capture, and business use cases that form an in-depth roadmap. A strong use case identifies all relevant internal and external data sources for your analytics platform and minimizes the collection of useless information that wastes resources and obscures relevant search results.

### 2-Harness All Your Data without Disruptions

Big Data comes from a wide variety of data silos. To minimize the risk of decision making in a partial vacuum, it is critical to tap into all relevant data regardless of format—text, video, image, and audio—to get that holistic picture. You should consider technology that offers out-of-the-box access to data repositories inside and outside your firewall; technology that does not require data relocation to simplify and accelerate access. This way you can eliminate copying requirements, storage costs, and hand-off risks.

### 3-Personalize Knowledge Discovery

An advanced analytics solution built on proven, world-class technology should include innovations such as deep neural network and machine learning. This allows you to achieve contextually relevant knowledge discovery, unlock hidden insights, and reveal trends, patterns, interactions, and relationships with increasing effectiveness as more data becomes available. Each of us has specific information needs that are quite unique. With productivity being dependent upon how quickly and easily we can get the right information at the right time, a viable system must be able to automatically 'learn' from your information consumption history and personalize information delivery proactively.

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**66%**

of businesses find the use of Big Data very or extremely challenging<sup>6</sup>

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**85%**

of companies cite inadequate funding and uncoordinated efforts as top reasons for unsuccessful analytics implementations<sup>7</sup>

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6 "Business Success Through Pervasive Analytics," Forrester, May 2015

7 "Best Practices for Successfully Leveraging Enterprise Architecture in Big Data Initiatives," by Mike Walker, Gartner, July 2014

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Taking advantage of the latest, most advanced technology will improve results with the analysis of your unstructured data. Does the technology address the following key search and analytics requirements to cover diverse business use cases within your organization?

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**“The ability to leverage, say, sentiment analysis of social media data, will allow us to more effectively uncover and respond to suspicious behaviors and pertinent information in a much more efficient manner. It’s truly impressive what can be done to capitalize on all this data.”**

**RUSSELL HAMMAD**  
CEO  
Zenith Gulf Security Systems

#### **4-Adopt Enterprise-grade Security**

Intellectual property, confidential documents, personnel data, and other sensitive information must be protected from unauthorized access. Security should be top of mind when you have a powerful knowledge discovery system. Look for proven enterprise-grade security that will preserve all security entitlements so the right people can access the right information. Make sure there is automatic synchronization of all security entitlement updates to ensure you can keep up with the fast pace of change. Pay attention to the architecture to make sure it is optimized for performance in support of the security requirements.

#### **5-Embrace Advanced Technologies**

Taking advantage of the latest, most advanced technology will improve results with the analysis of your unstructured data. Does the technology address the following key search and analytics requirements to cover diverse business use cases within your organization?

- **Search your data**—automatic hyperlinking, conceptual search, keyword search, field text search, phrase search, phonetic search, field modulation, fuzzy matching
- **Analyze your data**—automatic query guidance, highlighting, parametric refinement, summarization, real-time predictive query, metadata extraction, automatic tagging, faceted navigation
- **Personalize your data**—implicit profiling, explicit profiling, community and expertise network, agents, intent-based ranking, alerting, social feedback
- **Enhance your data**—education, automatic clustering, clustering 2D/3D, auto-classification, auto language detection, sentiment analysis, and automatic taxonomy generation

For example, clustering is a powerful machine learning technique that takes a large set of data from various sources and automatically partitions it so that similar information is clustered together. It can uncover key concepts and how they relate to each other without any user intervention. This may just bring about that “Aha!” moment and shed new light on why certain things are happening. Another area to focus on is whether it is an open and scalable to support easy third-party integrations and future growth. As for flexibility, look for the capability to support both on-premises implementation and on-demand cloud services.

### **6-Team with Proven Market Leaders**

Selecting the right provider to meet your exact solution and services requirements can be confusing with the hype that surrounds the Big Data analytics marketplace. Be sure your chosen solution can handle the wide range of data sources and types and has demonstrated its expertise in both products and services as well as verified success in many industries and business use cases. Analyst groups such as Forrester and Gartner also publish research that can pare down the market candidates to leaders in search, knowledge discovery, and unstructured (e.g., text) data analytics. Look for sustained leadership position over time and across analyst firms.

### **7-Learn from Others, Inside and Outside of Your Industry**

Look to unstructured data analytics leaders in your business and other industries for innovative business use cases. Marketers, for example, analyze social media texts to discover what consumers are saying about a product or service, or they are studying video clips and images to obtain key consumer trends and preferences. Public safety agencies can use analytics to track down wanted criminals and thwart acts of terrorism. All organizations, including yours, can analyze unstructured data to solve critical business problems.

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**“The system has helped us catch 2,739 people who were wanted for traffic and criminal offenses, both locally and internationally, since 2012.”**

**COLONEL AL MAZROUI**

Director of Dubai  
Traffic Police

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IDOL derives contextual and conceptual insights from data, which allow computers to recognize the relationships that exist within virtually any type of information, structured or unstructured.

## How Can Micro Focus Help?

Micro Focus has been in the business of providing unstructured data analytics solutions for over two decades. We have helped businesses and government agencies worldwide to use Big Data to improve operations, gain competitive advantage, and find new revenue opportunities. Our solutions to meet the complexities of unstructured data analytics include Micro Focus IDOL (Intelligent Data Operating Layer) and Micro Focus Big Data Software Services. We continue to raise the bar when it comes to technology and innovation and the experts who can help you meet your Big Data requirements.

### **IDOL**

IDOL is a premises-based applied machine learning platform, which helps you unlock hidden insights and reveals trends, patterns, and relationships. It also gives you an in-depth understanding of user profiles and actions to personalize knowledge delivery. IDOL's 360-degree view of information helps you search and analyze content of diverse formats inside and outside your enterprise, ranging from free text, images, audio, and video files. When you search using IDOL, you can decide to do so across many repositories, from internal silos and application repositories to private and public clouds and the Internet.

IDOL derives contextual and conceptual insights from data, which allow computers to recognize the relationships that exist within virtually any type of information, structured or unstructured. Similar to natural language processing (NLP), the capability to understand the data makes it possible to automate manual operations in real time by extracting meaning from information and then performing an action. Micro Focus IDOL enables you to recognize around 1,000 file types with support for 150 languages and connect to over 150 repositories, providing advanced and accurate retrieval of valuable knowledge and business intelligence both inside and outside your enterprise.

### **Micro Focus Big Data Software Services**

Micro Focus Big Data Software Services is committed to customer success and can help achieve business results faster, lowering IT development and maintenance costs, and giving customers a competitive edge in the marketplace. Big Data Software Services acts as a partner in every stage of the Big Data journey and provides a variety of offerings tailored to the requirements of the customer. Services include the following:

- Assessment and strategic advisory services including workshops, planning, and consultative road mapping
- Software installation, capacity planning, hardware specifications, security model, and governance
- Expert services tailored to customer needs such as the structure for the right skills at the right time at a predictable cost—"Best Practices for Successfully Leveraging Enterprise Architecture in Big Data Initiatives," by Mike Walker, Gartner, July 2014; senior-level resource(s) are blended with other skill levels to achieve a high-skill/low-cost price point as compared to hiring staff or using project-based consultants
- Post production and deployment services termed "Solution Management Services (SMS)", include:
  - Reactive services (single point of contact for incident and problem management across the entire solution)
  - Operational services (operational request fulfillment and ongoing maintenance to keep the solution healthy)
  - Enhancement services (continuously improve the solution through enhancements that increase value and adoption)
  - Health Check service is designed to provide a detailed assessment of solution infrastructure deployment. The audit includes a multi-point system review of the operating environment and provides recommendations meant to help get the most value from the software platform.

Micro Focus's proven leadership in Big Data analytics solutions can help you develop Big Data strategies that will make an impact on your business today—and tomorrow. We help you harness unstructured data so it can be transformed into valuable insight.

### **Learn More At**

[\*\*www.microfocus.com/idol\*\*](http://www.microfocus.com/idol)

[\*\*www.microfocus.com/bigdataservices\*\*](http://www.microfocus.com/bigdataservices)

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Additional contact information and office locations:  
[www.microfocus.com](http://www.microfocus.com)

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