



Pharmaceuticals and Life Sciences

Overview

More than ever, the pharmaceutical industry is facing increasing pressures such as growing competition, increased government regulation, product segmentation, drug counterfeiting, corporate consolidation and of course, time to market.

We've all heard it said, "time is money", but in the pharmaceutical industry this is especially true. The amount of time it takes to get a drug through the development, trial and approval stages directly affects the company's bottom line. It's been said that every day a big pharma company can save in bringing a new drug to market represents around \$1million in savings.

The answer to many of these challenges lie in a company's ability to extract knowledge from raw data and to make it readily available where and when it is needed.

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Information Needs of Pharmaceuticals and Life Sciences and How Chiliad Delivers

Chiliad Discovery/Alert connects the dots between disparate systems that are used by scientists and researchers on a daily basis. Connecting people from around the globe is now no more than a search term away.

Research and Development (R&D) is the lifeblood of large pharmaceuticals. Companies are measured, not only on how they perform, but also on their R&D pipeline's health. Several key R&D information and analysis challenges are detailed below.

Speed Market Research

Challenge: In an ideal situation, decisions that drive a product's commercial potential are made long before that drug is launched into the market. Companies are now beginning market research activities early in the drug development process. This up-front research greatly impacts a drug's success at launch and can improve acceptance by the marketplace. Who is the target customer for this drug? What geographical markets should we be getting into? What drugs should be further segmented by form or strength? Who are the main competitors? What are the insurance and managed care organizations saying about this drug?

Information Needs Cont'd

Chiliad Approach: By establishing a virtual integrated repository, Chiliad enables insights into customer perception, the analog drugs available, insurance and managed care trends. This insight enables analysts to more efficiently work with upper management and R&D to drive the company's overall product strategy and focus.

Optimize Testing & Clinical Trial Analysis

Challenge: Pharmaceutical companies are challenged with keeping abreast of progress in various clinical trials and the FDA approval process. The impact of such results can transform a company but often the information resides in a variety of locations. What is the progress for all clinical trials for a particular product? What side effects have been identified during a study? What other medical uses might exist for a product?

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Thorough Risk Analysis

Challenge: Pharma companies are measured, not only on how they perform, but also on their R&D pipeline's health. The pipeline drives strategic and acquisition strategies. If the pipeline is too light, the Pharma needs to consider acquisition alternatives to internally developed drugs. In order to assess the pipeline accurately, technical and business risk assessments of the pipeline need to be performed regularly by the large Pharmas.

Chiliad Approach: By making key information readily available to all necessary constituents, Chiliad enables a more quantitative approach to risk assessments.

Expert Knowledge Locator/Cooperative Collaboration

Challenge: It has been proved that scientists and researchers are highly unlikely to update knowledge repositories that retain information about their professional expertise. By having a passive way to implicitly infer a person's field of expertise derived from existing data sources (file shares, content repositories, collaborative workspaces, web-sites, etc) proves to be an effective way to share information.

Chiliad Approach: Chiliad Discovery/Alert connects the dots between disparate systems that are used by scientists and researchers on a daily basis. Connecting people from around the globe is now no more than a search term away. Looking for the expert on plastic extrusion methods, then Chiliad will lead you to that person(s) with a click of the mouse.

Stop or Reduce Duplicate Exploration

Challenge: In large R&D organizations it has been known that research exploration can be redundant, especially when projects are being conducted globally.

Chiliad Approach: Chiliad Discovery/Alert lets you see other people who have similar research interests based on past queries, thus immediately exposing relevant historical exploration. In addition, the researcher can define specific scenarios that will monitor all relevant data sources for pertinent information. Upon update or entry of new data that meet the criteria, the research is automatically notified.

Reduce Access Time to Internal & External Knowledge

Challenge: It has been documented that knowledge workers (scientist and researchers) spend approximately 30% of their work day trying to find relevant information to do their job.

Chiliad Approach: With Chiliad Knowledge/Discovery's unique peer-to-peer global search and relevancy ranking, the most relevant information from across all repositories is immediately available to the user. By providing concept recognizers the information is quickly sorted into key topic areas that are most relevant for the user --- thus dramatically reducing the time associated with knowledge discovery.

IP Protection

Challenge: Counterfeiting, trademark and patent infringement are major challenge for most R&D organizations, especially Pharmas, where the stakes are especially high.

Chiliad Approach: With Chiliad, R&D organizations can monitor internal systems for use of sensitive IP data and report when suspicious activities are found. Monitor external websites, RSS feeds, and content aggregation sources for mention of use of IP outside the organization.

Quality Improvement

Challenge: R&D organizations are under heavy pressure to continually improve their quality. Unfortunately, many times information on product composition, users, trials, instruments, processes, may all be kept in disparate systems with no easy way to link the information with any relevance.

Chiliad Approach: Chiliad Discovery/Alert enables quality and process control personnel to quickly access relevant information and "connect the dots" between these systems without the need for timely and expensive data mining/warehousing methodologies. Quickly search all the data sources and discover where quality improvements can be made.

Compliance & Governance

Challenge: As regulation requirements become stricter and litigation becomes more frequent, R&D organizations are forced to respond to discovery/audit requests on a regular basis. These requests can come with very short notice and demand the turnaround of pertinent information within days. Inability to meet these demand often result in large fines. Having a system in place to expedite the delivery of information for these requests saves time and money. The issue is that typical search technologies do not always provide the most relevant results. Limited by not having a global ranking capability, the results from each data source are lumped together sequentially - where relevant data can get pushed to the bottom of the pile. In fact, many times they produce too much data - leaving it up to costly legal counsels to determine the document's relevance.

Chiliad Approach: Chiliad can quickly search through massive (terabytes) of information in seconds and through its unique peer-to-peer global ranking capability, only present the user with the most relevant documents across all data sources. This saves R&D resources precious time and money better spent on R&D activities. Reduce investigation costs by lessening the manpower and time associated with completing search queries. Chiliad 360 pays for itself within a few months.

Information Needs Cont'd

Competitive Intelligence

Challenge: Having a constant view of what your competitors are doing will keep you one step ahead at all times.

Chiliad Approach: Chiliad Discovery/Alert provides for real-time monitoring and alerting of websites, RSS and database feeds, and other information sources. The difference between Chiliad's method and other news feeds is the fact that we can provide real-time processing of these data feeds against a set of user-defined queries (rules). These queries do not have to be written in any special computer scripting language nor do they require an administrator to configure. Chiliad puts the power in the hands of the users.

Merger & Acquisition Analysis

Challenge: Pharmaceutical companies often merge even where a wide overlap in product lines and operation functions exists. Heavy analysis is needed before committing to a merger or acquisition, heavy analysis is needed to determine financial viability given various scenarios.

Chiliad Approach: Chiliad enables the virtual integration and analysis of multiple data sources to support insight into product performance, doctor segmentation, competitor information, and product synergies. With Chiliad, more informed decisions can be made with respect to possible mergers and acquisitions. Market research, R&D, and pipeline data can be integrated to support this analysis.

General Business Benefits

Consistently superior decision-making

People can't make smart decisions if they don't have the right information. By making it easy for decision-makers to assemble accurate, complete, and up-to-date information, Chiliad empowers users across the enterprise to better pinpoint opportunities, discover problems, and otherwise impact the organization in positive, high-magnitude ways.

Greater knowledge worker productivity

Organizations can't afford for people to waste their time logging into multiple systems and manually correlating search results. With Chiliad, everyone can quickly and easily survey large numbers of information resources so that they can get their jobs done more efficiently and effectively.

Improved responsiveness to change

Organizations must constantly respond to all types of change, including changes in markets, changes in customer behavior, changes in the organization, and changes in technology. Chiliad facilitates this responsiveness by providing users with timely and complete information - and by making it easy to integrate new information resources into the system as necessary.

Reduced exposure to operational and compliance-related risks

Organizational performance doesn't just depend on using information to do smart things. It also depends on avoiding doing the wrong thing because of a lack of information. Chiliad helps mitigate these types of risks by making it easier to alert key staff when the conditions associated with those risks arise.

Better security

When people can't get to the information they need, they are more likely resort to unacceptable

workarounds such as sharing passwords or creating unauthorized hard copies. By both facilitating access to all resources for which a user is authorized and preventing access to those for which a user is not authorized, Chiliad tempers multiple factors that often lead to compromised security.

Lower IT costs

Without the capabilities Chiliad delivers, organizations are likely to implement a variety of products and technologies over the coming years that may be cumulatively more expensive to own, while yielding lesser overall functionality - including enterprise search tools, intranet portals, and function-specific data marts. Chiliad provides a single solution that can have greater business impact than these fragmented technology acquisition, while offering a lower lifetime total cost of ownership.

Competitive differentiation

In today's fast-paced, knowledge-driven global environment, organizations that use information effectively will consistently out-perform those that don't. So, by enabling more effective utilization of enterprise information assets at lower total cost, Chiliad can provide significant competitive differentiation.

These benefits and others make Chiliad a highly compelling technology solution for organizations that have a wealth of enterprise information resources, but still lack a fully effective means of exploiting their full potential. In fact, as information resources within and beyond the enterprise continue to proliferate - and as the knowledge that users can synthesize from those information resources continues to grow in potential impact and value - Chiliad is rapidly becoming an indispensable asset for success.

By completely separating data and data management from the analysis function, Chiliad addresses the stovepipe problem in a way that:

- Does not disrupt existing systems
- Allows individual departments, divisions, business units, agencies and organizations to maintain control and management oversight over their information
- Does not place excessive burden on network bandwidth and computing resources
- Is scalable in terms of data volume, number of data sources, number of users and network distribution
- Provides the most relevant results, and a rich, navigable knowledge base for analysis and drill-down regardless of how diverse and large the target data repositories.

For more information on how Chiliad can benefit your organization please contact Chiliad.

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