

# Using Context to Improve Content Delivery

## Content becomes King

Content it would appear has become a new raw material and additional factor of production with a capability, according to IBM, of more business effectiveness than data.

Content is the foundation for much of what happens within an organization, such as its business process descriptions, ideas, communications, decisions, and last but not least, the organisation's innovation and learning. It is not surprising that content is now seen by many business leaders as the next major initiative for IT in business.

Work on this IT initiative is progressing rapidly with Content Management ranked as a leading priority for IT initiatives.

## Content growth and the need for access

Separate studies from eContent Magazine, UC Berkeley, IDC and IBM among others, suggest that content is growing within organizations at rates in excess of 90% each year.

These studies combine to support the assertion that the management of content has become a strategic business issue.

But in the rush to build and manage this mass of content however, businesses must not lose sight of the need for employees to access and consume this content so they can perform to maximum advantage in today's modern business environment.

This means providing instant access to content for reference purposes, for business process support purposes, for buying and selling decisions and of course for learning and knowledge.

## 20% of time spent searching

The rate of demand for content access is highlighted by research studies undertaken separately by IDC and Ridge group.

IDC have determined that "Knowledge Workers spend 15 - 20 % of their time

actively looking for information to do their job with only 50 % success".

The Ridge group study supports this finding while determining that an enterprise with 500 technology workers each spending 7+ hours per week hunting down reference information costs that enterprise \$7.5M each year.

## Innovative content access required

These and other studies suggest a need for more efficient and productive content access methods.

According to research by Frost & Sullivan, creative hardware and software solutions that guarantee reliable delivery of content will become imperative as companies around the world face an Internet traffic bottleneck.

The Yankee Group notes the content management systems were initially targeted at media companies seeking to move their content to the Web, but traditional brick-and-mortar companies are now adopting them as they integrate the Internet into their business strategy.

## From formal learning to workflow based learning

The need for content access is also being influenced by a significant development in the trends within organizational learning.

This development has been highlighted by Tony O'Driscoll, an IBM learning strategist, in a recent white paper entitled 'Adapt or die - the strategic role of learning in the on-demand enterprise'

Describing our work economy as service driven and knowledge enabled with shrinking product cycles, increasing work complexity and velocity, Tony describes how we are entering an on-demand era, where market needs have to be sensed and responded to in real time.

To cope with this on-demand era, IBM encourages the narrowing of the gap between work and learning by building work environments that promote perpetual innovation and learning.

Learning is the innovation enabler says IBM. We cannot innovate unless we learn something new; we cannot change unless we have new insights or perspectives.

IBM's guidelines to help narrow the gap between work and learning include

- Think: learn to innovate not imitate
- Think: flexible learning architectures
- Think: enable learning while doing versus learning pre perform
- Think: instructional strategies based on urgency and time
- Think: just in time not just in case
- Think: informal learning

These guidelines promote the concept of providing the right content to the right person for learning while working and doing, i.e. just in time.

The need for informal learning or content access just in time is also highlighted in studies by IBM, which determined that 42% of the knowledge which professionals use to their job comes from other people. This knowledge was retrieved mostly by interrupting colleagues at work, thereby effectively doubling the cost involved in the knowledge search process.

Other studies, which highlight this drive towards informal and work-flow based learning, are critical of traditional classroom learning techniques. The Workflow Learning Institute for example reports that formal learning (classes, workshops and online events) is the source of only 10% to 20% of what we learn at work, despite accounting for 80% of the money spent.

All of this means that investments made in 'formal' learning are having less and less value to the enterprise and companies must provide more attractive 'informal' alternatives.

To put it simply, we must provide innovative and informal mechanisms for enabling our employees with the content and information they need to do their job.

That means 'content access' just in time!

**Contextual based content access, the perfect solution.**

Research by Steve Ray and Tony O' Driscoll of IBM, suggests that the two key

attributes required for effective content access are proximity and relevance.

- Proximity - defines the ease of access and level of integration provided to workers.
- Relevancy - defines the likelihood that what is provided addresses the immediate needs of the individual.

Both of these characteristics are facilitated if we employ contextual and workflow-based access as the technique for content and learning delivery. Only however, if we have context can we provide relevancy.

**But what is context and how can it be determined?**

There are essentially two primary categories of context in the workplace.

The first category is about understanding the individual performing the work, so as to ensure the relevancy of content delivery.

It requires answers to the following questions -

- Who is the individual?
- What is their job role?
- What is their historical experience?
- Which is their preferred learning style?
- How much industry knowledge does the individual have?

The second category of context relates to the employees' work predicament and requires the answer to such questions as:

- Where does the employee perform their work?
- What work is the employee doing now?
- Which process is involved?
- Which stage is the process at now?

It is the combination of these two context categories that represents the unique power of the approach employed by EPSI's Smart Support approach.

The Smart Support approach to contextual access is supported in a recent study by IT Centrix, a consulting organisation specializing in measuring and managing the business value of information technology within an organization.

Research by Centrix has established that:

- IT applications generate \$6 value for every \$1 IT spent.
- It is the users, not the IT budget size that drives application value.
- Using IT applications is a powerful value enabler which allows employees to contribute to:
  - o Productivity improvements,
  - o Direct revenue,
  - o Improved quality,
  - o Better customer satisfaction.

In a key research finding to determine the amount of IT application usage, Centrix has reported "On average, across a wide range of industries, employees using computers, spend more than 30% of their time actually using IT applications".

This single finding suggests that for much of the working day, the IT application context is critical to determining the content needs of an employee. Consequently, assessing the work done within the application, as Smart Support does, represents a powerful technique for delivering the exact content required.

### The business case for 'just in time' content delivery

Implementing an enterprise wide approach to predicament based, contextual or 'just in time' (JIT) access to learning and support content in all its functional forms makes good business sense. While it can speed up and reduce the cost of access for employees, the ultimate opportunity is the ability to improve employee productivity.

Consider this productivity illustration relating to an organisation in \$1Bn in revenues and 4000 employees: A 1% reduction in IT total cost of ownership (TCO) adds 500k to the bottom line as a saving. However, making 4000 employee 1% more productive will yield \$ 10M to the bottom line.

### So how is productivity impacted by contextual access to content?

The US Bureau of Labor Statistics defines productivity as the 'ratio of the output of goods and services to the labor hours devoted to production of that output' as follows:

$$\text{Productivity} = \frac{\text{Numbers of workers} \times \text{hours worked} \times \text{products produced}}{\text{hours worked} \times \text{products produced}}$$

Clearly an increase in any of these three parameters will bring about an increase in productivity, In today's environment an increase in the number of suitably skilled workers on their working hours is neither possible nor desirable. The focus on the use of process automation, production technologies and new methods is now suffering diminishing returns limiting the ability to impact productivity.

By improving our employees' access to learning and support materials we can facilitate informal learning while working. This improvement can impact significantly the 'number of hours worked' by reducing the working hours lost as employees search for the knowledge, support and information to help them through their tasks and work processes.

### Hard financial benefits:

- Since studies shows that employees can spend 20% of their work time looking and searching for information to do their jobs, then a reduction of that time by 50% generates 2 days extra time worker per month. That's the equivalent of a 10% productivity increase.
- If as reported, about 50% of these searches are unsuccessful; this amounts to 2 days of down time per month. Adding context to the search process to deliver only relevant support and learning materials will improve the success rate significantly. A 25% improvement in that success rate would generate one extra half day or 4 additional work hours per month. That's a 2.5% increase in productivity.
- According to IT Centrix, employees across a wide range of industries spend 'on average' more than 30% of their time actually using IT applications. This application activity, they report, shows a value to the business of \$6 for every \$1 spent on information technology. For these users, if the implementation of context access were to improve their efficiency by 20%, then IT usage can generate an additional value of 20% or \$7.20 per dollar invested in information technology.

# Smart Support - An enterprise approach to contextual access

The Smart Support approach from EPSI combines the IT predicament and all of the context information it contains, with an understanding of the individual performing the work, to deliver precisely the content users' need in an appropriate functional form, just 'when' they need it.

While predicament based access by itself is not a cure-all, it does strongly augment the traditional forms of content access such as search engine techniques and hypertext browsing.

An enterprise approach to contextual access should possess the following capabilities:

- Have a single and common interface for all knowledge workers across the enterprise.
- Be open to all enterprise IT applications past, present and future (legacy, windows and web based).
- Involve no change to, or impact on, the IT applications.
- Be open to all content types, all functionality (learning, reference, process support, simulations, cue cards etc.) and all content sources (CMS, LCMS, Websites, Databases etc.)

The Smart Support approach to enterprise wide context access to business process support and learning works as follows:

- As knowledge workers use their IT applications to do their job, Smart Support recognizes their work context and provides the precise and relevant knowhow and knowledge to enable tasks to be completed fast and efficiently while they work.
- Smart Support offer a choice of implementation styles with a 'PUSH' or 'PULL' approach for knowledge workers. Push the support materials directly to employees or have them pull what they need when they need it. Choose the approach that best suits the needs of your employees and the application platforms in question to provide a common enterprise wide approach.
- The Smart Support toolset empowers learning and business professionals to retrofit a contextual learning and support capability to IT applications without change to or impact on those applications. Virtually any IT application can be supported throughout the enterprise and no technical skills are required for implementation. A tracking capability ensures continuous improvement so employees always get what they need to do their job.

## Smart Support 'JIT delivery' case studies

In support of these productives, customers of the Smart Support approach to 'just in time' (JIT) 'predicament based' or 'contextual' content delivery report the following benefits:

- Up to 72% increase in revenue from the Customer Service Representatives in the first 6 months.
- 14% increase in employee productivity.
- 26% reduction in help desk inquiries.
- 40% decrease in new employee training days.
- Payback within 2-6 months.
- A significant new IT offering that is welcomed by end users.

### Conclusion

The soft benefits of JIT content delivery, which facilitates informal learning, include better employee satisfaction, better employee motivation and real employee empowerment. JIT access promotes an innovative and flexible approach to work while enabling a migration towards informal learning, all of which support the challenges of the 'on demand' enterprise.

But the real hard measurable savings derived from 'contextual' access to content are derived from an increase in employee productivity, the target for which can exceed 20% as illustrated above.

That's one extra day per week per knowledge worker and results in significant contribution to the bottom line!

What other IT initiative, with such minimal implementation effort, can generate such a return on investment?

If you would like to know more, please check out our website below or email us at -

[support@epsiasia.com](mailto:support@epsiasia.com)  
[www.epsiasia.com/products/smart-support](http://www.epsiasia.com/products/smart-support)



### For more information

Sydney Office  
Level 4, 95 Pitt Street  
Sydney NSW 2000  
Australia  
T +61 2 8249 8142

Melbourne Office  
Level 15, 470 Collins St  
Melbourne VIC 3000  
Australia  
T +61 3 9017 0903

Queensland Office  
Level 5, 320 Adelaide St  
Brisbane QLD 4000  
Australia  
T +61 7 3139 0273

