

ELIMINATE THE TOP 3 PRODUCTIVITY KILLERS:

Having the right product information at the right time is often half the battle.

In the world of product development, and specifically in requirements management, you hear a lot about building a “central repository” or a “single system of record.” But, why does that matter? What’s the real value in creating a central hub of product intelligence? It all comes down to productivity. Without a solution that keeps everyone and everything connected, your organization is vulnerable to the common issues that plague product development teams. The top three productivity killers:

- Too much time and money wasted searching for the latest information
- Information silos kill productivity and clog the arteries of innovation
- Social capital is lost with employee transitions

How much more productive could your team be if you had all of your product intelligence – ideas, feature requests, requirements, design specifications, analysis documents, release plans, defects, trace relationships – PLUS all the related conversations that happen during the development process in one system that’s accessible, organized, and connected at all times?

❖ **The goal of this whitepaper** is to explore the magnitude of these productivity killers and illustrate how companies with a central hub of product intelligence are better equipped to capitalize on their organization's collective genius to build products faster and more efficiently. As a team of product developers at Jama, we were interested in figuring this out for ourselves as well and thought it was worth sharing. Read on.

“Even if your products won't cause loss of life or limb if they fail, you should take requirements traceability seriously.”

Karl Wieggers, author of
“Software Requirements”

PRODUCTIVITY KILLER ONE: THE GREAT SCAVENGER hunt is costly.

Information is growing over 66% each year¹ and is constantly changing. The good news is we now have the opportunity to know more about our customers like never before. The bad news is we're inundated with information – some of it valuable, much of it noise. Where do you store and organize the relevant product information? Do you have the right intelligence captured to make the right decisions and take the right actions?

It's estimated that employees at U.S. companies waste over 5 billion unproductive hours annually just looking for information.² At \$35 per hour for an average knowledge worker, that's a \$175 billion problem in the U.S. alone. You could reasonably triple that to estimate the worldwide impact of \$500 billion this issue has on the global economy each year. As an executive friend used to say, “That's no pocket change, that's adult money.”

The reality is that it's difficult to eliminate this problem completely. It plagues every organization on some level. We've worked at start-ups with 10 people in the same office and Fortune 100 companies with 75,000+ global employees, and it exists at both. The question isn't whether it's an issue in your company. The more important question is, “What's the full impact it's having on your team and their productivity, and could a better solution make a significant difference?”

Here are a few stats we gleaned from the Web that might open a few eyes and help quantify this issue more. Did You Know?

- Employees spend 25% of their time just searching for information³
- Employees spend 20 minutes per day recreating information that already exists⁴
- 2% of employees accidentally use the wrong information at least once per week⁵

PRODUCTIVITY KILLER TWO: INFORMATION SILOS clog the arteries of innovation.

Throwing specification documents over the wall and from department to department impacts product development a lot more than one might think. How much are information silos really costing your company? It's easy for:

- Disconnected conversations to happen at meetings & the water cooler or in email
- Knowledge to get locked away in people's heads, PCs, file servers or hard copy

These information silos cause unnecessary issues, resulting in guesswork and costly defects downstream.

You can probably relate to this scenario: You're cruising along building a great new feature and all of sudden you stop dead in your tracks because you're missing one key piece of information. You're now three steps removed from the actual feedback of the customer which is locked away in some other place. The business analyst is on vacation. The product manager is on to a new project. And, you're stuck working from a single "the system shall..." functional requirement buried in a potentially outdated specification document and no context to what the customer really wants.

Now you face a critical decision. You can hope for the best and deliver something that might not work (but no one will find out for months) or spend the next few hours playing Sherlock Holmes and tracking down the original feature requests and feedback that was captured from the customer.

This scenario plays out over and over again in companies every day, and it's not only frustrating and unproductive for the person, but it's incredibly expensive for your organization.

Does Your Team Suffer from the Silo Effect? Take the Test... The silo effect is a disease that plagues companies worldwide. Borrowing from the infamous Cosmopolitan style, use the quiz below to determine whether your organization is at risk.

Yes	No	Qualifying Questions
<input type="checkbox"/>	<input type="checkbox"/>	Do you have duplicated sources of data and multiple versions of requirements spreading across your organization like the Swine flu?
<input type="checkbox"/>	<input type="checkbox"/>	Do you have departments that are as disconnected and unaware of what the other is doing? Is the right hand talking to the left hand? Be honest.
<input type="checkbox"/>	<input type="checkbox"/>	Do you operate in an industry with compliance standards, where detailed version history and specific requirements documentation are required for approvals?
<input type="checkbox"/>	<input type="checkbox"/>	Do you spend more than 20% of your time hunting around for the latest product information and requirements?
<input type="checkbox"/>	<input type="checkbox"/>	Is visibility into the product development process limited currently? Hint: If you've heard the term "black hole" in a meeting recently, then mark 'yes.'
<input type="checkbox"/>	<input type="checkbox"/>	Do you have communication gaps or blind spots related to customer commitments, product specifications or other insights into what your customers expect?
<input type="checkbox"/>	<input type="checkbox"/>	Do your business analysts match all 29 dimensions of compatibility and enjoy long walks on the beach with your engineers? Sorry, ignore this one. We get carried away by the style of these quizzes.

In all seriousness, if you answer "yes" to two or more of the first six questions, then it's probably time to evaluate a solution to help you eliminate the silos and bring it all together.

PRODUCTIVITY KILLER THREE: VALUABLE SOCIAL CAPITAL just left the building.

Retaining the knowledge, or social capital from employee turnover is a real issue – especially right now in this economy. In addition, ramping up your staff to adequately manage projects that have fluid scope and team members going in and out of them adds significant costs to product development cycles. When someone does walk out the door, transfers to a different team, or joins a development project midstream – what critical information is lost in transition? How long does it take for the new team member to be up to speed and fully productive?

Did You Know?

- Average ramp-up time is 45 days for a new employee, but as high as 9 months for highly skilled jobs⁶
- The productivity loss of IT employee turnover can last from 3- 12 months⁶

Okay, so we've got a handle on the issues. What can we do about it? What's the solution?

the solution? a central hub of product intelligence.

First, let's define central hub of product intelligence. What are we really talking about? Naturally, we think of the data (aka requirements or artifacts) that explains the scope of the product the team is building. The difference in why we use the word "intelligence" instead of just "data" is that product intelligence expands beyond the requirements. It also includes two other important related categories of information that support the social nature of the product development process.

- **Conversations** – There is an ongoing dialogue throughout the product development lifecycle. By including the conversations in context to the requirements and other data, your team will have the complete story of what customers need. This context is huge. Without context, you have higher risk for misinterpretation and defects later on.
- **Relationships** – Often referred to as traceability (the upstream and downstream relationships between requirements and other items) – the links between the data and the people who own the data are important for understanding all the dependencies and creating a dynamic environment where you can intelligently manage and communicate changes when they occur.

A social process requires a social solution. It's said that when something is shared and made visible for others to see, it's 50% more likely to get done. The same is true in product development. When you think about it, the product development process is naturally social. Customers provide feedback. Teams discuss requirements. Analysts capture insights. Managers communicate decisions. Companies make commitments. Engineers develop solutions. All in the effort to build products that satisfy customers. So, it seems logical that the solution you use to manage all of your product intelligence needs to be social too.



There's a lot of hype, but the social trend is real. If you're like us, you might be tired of reading about "the revolution of social networking" – as if life or business wasn't social before Twitter, Facebook or other Web applications existed. However you feel about this trend, there's evidence to show the collaborative movement is real and is gaining momentum in the workplace. IBM estimates that within six years, workers will collaborate 80% of their time.⁷ You can't open a prominent business or technology magazine without reading about open innovation and the impact that collaboration is having on business processes. With nearly \$1 trillion being invested in R&D worldwide annually,⁸ you can understand why it's a popular issue.

What you stand to gain by building a central hub of intelligence:

- Save time and money that's wasted searching for information
- Reduce costly guesswork, rework and related defects
- Eliminate redundant research and unnecessary duplicate projects
- Shorten ramp-up time of new employees to the team
- Give complete context to the goals and scope to everyone involved

Keep it in perspective. Make it real. Having a central hub of product intelligence isn't the end-all-be-all for building great products. It's just one capability in a list of many that are required to innovate successfully. If you have a broken development process, a central hub won't solve that. If you don't have the right staff, it won't magically solve that either.

However, of all the issues that plague product development teams, connecting together the product intelligence in a central hub is one of the most immediate and achievable steps an organization can take to accelerate development cycles reduce costs and improve productivity.

Within **6 years**, workers will collaborate 80 percent of their time.

- Building a Smarter Planet



"We had to put thousands of requirements and conceptual functionality in a Word document. It quickly became over-bearing to track priorities, requirements and the changes in such a linear format."



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Roll the Credits

Footnotes on statistics & articles we referenced during our research. Enjoy.

1. UC Berkeley: Total volume of information is growing 66% annually.
http://www.kk.org/thetechnium/archives/2006/02/the_speed_of_in.php
2. Searching Kills Employee Productivity Blog: Toby Ward, President and CEO of Prescient Digital Media, says that professional employees spend 53 percent of their time looking for information, which he estimates results in 5.4 billion unproductive hours for U.S. business annually.
http://intranetblog.blogware.com/blog/_archives/2006/8/28/2184242.html
3. IBM: Employees spend 25% of their time just looking for information.
<http://www.ibm.com/ibm/ideasfromibm/us/smartplanet/topics/businessproductivity/20090504/index.shtml>
4. Info-Tech Research Group: Employees spend 20 mins/day recreating information that already exists.
<http://www.docstoc.com/docs/8266999/Improving-Employee-Efficiency-with-a-360-degree-View-of-Information>
5. Accenture: 42% of employees accidentally use the wrong information at least once per week, 2007 Accenture study.
http://newsroom.accenture.com/article_display.cfm?article_id=4484
6. Average ramp up time is 45 days for new employee, as high as 9 months for highly skilled jobs. The productivity loss of IT employee turnover can last from three to 12 months.
<http://www.newswise.com/articles/view/554852/>
7. IBM: Within six years, workers will collaborate 80% of their time.
<http://www.ibm.com/ibm/ideasfromibm/us/smartplanet/topics/businessproductivity/20090504/index.shtml>
8. Booz Allen Hamilton: Nearly a \$1 trillion is spent annually on innovation (R&D), Global Innovation 1000 Report, 2007.
http://www.boozallen.com/media/file/Global_Innovation_1000_2007.pdf

About the Author



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John represents the voice of the customer in Jama's product strategy and communications. He has over 14 years experience working at software and Web technology companies including Microsoft, WebTrends, Omniture and ZAAZ. He has contributed to several books, whitepapers and presentations on marketing and technology.

About Jama Software

Thousands of users worldwide. Billions in R&D projects managed within Contour.

Jama Software is the leader in collaborative requirements management solutions for improving enterprise collaboration and managing complex software development projects. Its Web application, Jama Contour, helps organizations manage the entire requirements management lifecycle through an intuitive, easy-to-use interface that brings people, process and data together to ensure software quality is delivered as specified.

Customers, from agile start-ups to the largest and most sophisticated technology and IT organizations in the world, turn to Jama to help drive innovation, improve the decision-making process and harness the collective genius of all stakeholders involved in building great software. For more information please visit: <http://www.jamasoftware.com>.