

# Sharing hidden know-how: How managers solve thorny problems with the 'Knowledge Jam'

Received (in revised form): 22nd December, 2011



## Katrina Pugh

is the author of 'Sharing Hidden Know-How', is on the faculty of Columbia University's Information and Knowledge Strategy Masters programme, and is president of AlignConsulting. She helps organisations leverage knowledge and intellectual capital through metadata strategy, knowledge-sharing processes (like Knowledge Jam), and sustainable knowledge networks. Formerly, she was Vice President for Knowledge Management at Fidelity Investments, Senior Technical Program Manager for Intel Corporation, and First Vice President for Finance Knowledge Integration at JPMorgan Chase.

AlignConsulting and Columbia University, 49 Bedford Road, Lincoln, MA 01773, USA  
Tel: +1 617 967 3910; E-mail: katepugh@alum.mit.edu

**Abstract** Putting knowledge to work is the ultimate goal of any digital asset strategy. However, there are three obstacles. First, it is often not known what knowledge and expertise reside in the organisation. Or secondly, if it is known, that knowledge and expertise is in a format or packaging that is difficult for employees to use. And thirdly, knowledge is not stored or searchable in an intuitive, connected manner. Digital asset management (DAM) leaders are often focused on the last of these three issues. Yet, an ability to address all three — to bring to the surface and codify hidden insight in a manner that results in rapid productive uses of that insight — is a growing imperative in any programme focused on knowledge capital. This is the purpose of the 'Knowledge Jam'. In this paper, Katrina Pugh's 'Sharing hidden Know-How'<sup>1</sup> is introduced. In the book, the author provides a practical introduction to the Knowledge Jam process, with the disciplines of facilitation, conversation, and translation (on and offline). She describes the rationale for the disciplines: overcoming Knowledge Blind Spots, Mismatches, and Knowledge Jails during disruptions such as company or team transitions, mergers, innovation imperatives, or employee retirements. These disciplines should be at the heart of our digital programmes: they get us to collaborate on critical content, and to seed a culture of intention, openness, and stewardship.

**KEYWORDS:** Knowledge Jam, knowledge sharing, knowledge transfer, knowledge harvesting, facilitation, conversation, knowledge quality, content quality, process improvement

## INTRODUCTION

Being able to leverage and act quickly on knowledge is the key to competitiveness — whether in a for-profit business, a non-profit organisation, a nation, or a network. Insights into better manufacturing processes could improve cycle times and

position an organisation for cost leadership. Marketing insights could point to creative strategies, or product attributes that could help to differentiate a brand. Engineering know-how on yield problems in one division could improve efficiencies in other divisions.

But these nuggets contribute to competitive advantage only when there is some effective mechanism for transferring the knowledge, and doing so across the organisation just in time. That is when the process and culture are in place. Then an organisation is fit to pivot and respond to opportunities, while anticipating change. Many organisations fail to take advantage of their employees' knowledge, or that of the groups with which they collaborate (their networks). Knowledge is lost about markets, processes, and networks when there is failure to translate insight from one part of an organisation to the next. In short, employees, market players and citizens need more timely and efficient approaches to take in and make use of know-how.

#### WHAT'S NOT WORKING?

Time-worn knowledge 'capture' programmes — such as 'post-mortems', 'after action reviews', 'lessons learned', or automated 'document-authoring' — often fail because the know-how captured is not representative of experience, is incomplete, or does not get into the right hands. There are plenty of examples where a retrieved lesson-learned document led to more questions than it answered.

Some claim technology, such as crawlers and recommendation engines, can solve this thorny problem. But many a manager will attest that simply installing technology to bind together people does not guarantee knowledge quality, relevance, or durability. Tools may very well make people stupid. With ever more abundant technology (like social media), people are less and less inclined to reflect on and document know-how except in the traditional ways, without considering novel future applications. In modern collaboration-rich environments, there is the risk of operating under the fallacy that all useful truths will float to the 'top of the

feed' in the course of blogging, Yammer-ing, or online conversations.

Why are none of these approaches working? After more than a decade of trying, most organisations have two troublesome knowledge issues unresolved:

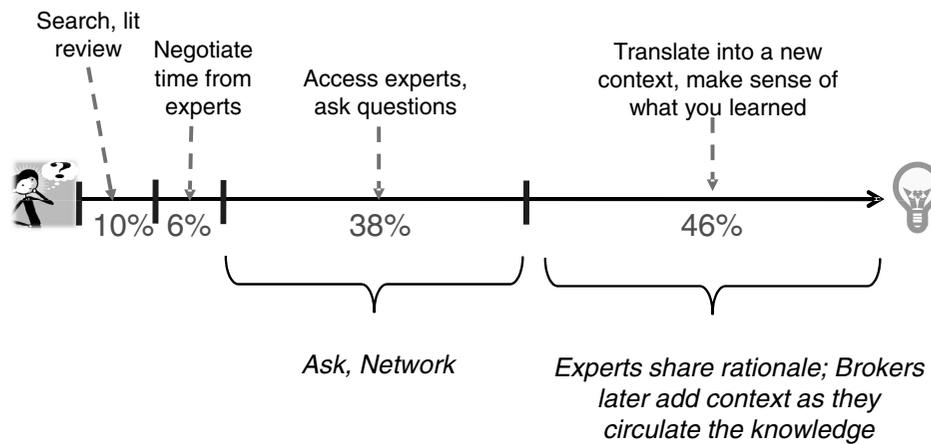
1. They fail to bring to the surface usable know-how.
2. They fail to *circulate* what know-how they have to those who need it, where they need it, when they need it.

This was Prusak and Jacobson's premise in 2006 when, at Babson College, they studied knowledge transaction costs for 200 knowledge-workers at US Defense Intelligence Agency, Battelle, Educational Testing Service, and Novartis.<sup>2</sup> The researchers measured the entire knowledge-transaction process, starting from the knowledge seeker's initial search for experts, to their negotiating time with those sources, then to their asking or eliciting knowledge, and, finally, to their actually adapting that knowledge to a new problem.

Tellingly, they found that 38 per cent of the seeker's time, on average, was spent drawing knowledge out of experts. Then, another 46 per cent of the time was spent figuring out how to make use of knowledge in a new setting. The remaining 16 per cent — a small share of the knowledge transaction time — was used for identifying and getting to the experts. Figure 1 captures this as a timeline.

When the two biggest time-investments (Access and Translate in Figure 1) are compared with the typical ten hours per event, and a conservative estimate of ten events per year is used, the opportunity cost of knowledge transactions can amount to US\$17m per year for each thousand knowledge-workers. Such an analysis is concerning. Why is a lot of time and energy being put into

## Percent of Knowledge Workers' Time Spent



**Figure 1:** Prusak and Jacobson's knowledge transactions study

not-so-productive interactions? It appears that organisations fail to share 'hidden' know-how because they start with three faulty assumptions:

1. Managers think they know where the knowledge or content with the highest economic value resides.
2. Knowledge originators (experts or veteran teams) think they can accurately predict what subjects or context will be important to potential knowledge seekers.
3. Managers assume that knowledge seekers are known by those trying to get the knowledge out — and that these seekers are trawling the repository, perusing the blog, or subscribing to the system — and would voluntarily take the time to seek that knowledge out.

From the author's experience with hundreds of companies, none of these assumptions turns out to be truly accurate. The system needs more than isolated knowledge originators' writing, knowledge stores, search tools, discussion threads and a blind faith in seekers' curiosity. It takes a robust

knowledge-elicitation process with broad participation.

To sense what is missing, these problems should be thought about as 'knowledge blind spots', 'knowledge mismatches', and 'knowledge jails'.

### Blind spots

'Knowledge blind spots' are gaps in understanding about where knowledge resides, or gaps in awareness that pieces of a puzzle might be spread out among unexpected sources. When reorganisations, outages, retirements, or market mishaps occur, blind spots are exposed. Then managers make a wild dash to identify 'who knows' and 'what they know'. There are two sources of blind spots:

#### *Blind spot 1: Knowledge flight*

Knowledge leaves with departing employees or contractors, and it may separate with disbanding teams. Having tried everything from exit interviews to bringing retirees back in consulting roles, managers have had relatively little success in retaining useful knowledge, or in getting the newer employees to bother accessing the expert knowledge that has

carefully been collected for their benefit.

### *Blind spot 2: Separated puzzle pieces*

Knowledge is fragmented across members of a team, organisation, or network, and not in one place. When combined, different insights may refine or amplify each other. Social network analysis (SNA) is one reputable tool for identifying knowledge concentrations (for example, clusters of subject-matter experts) and people who connect them ('hubs' or 'lynchpins'). SNA entails assessing the frequency or volume of exchange at various parts of the organisation. The trick is actually getting discrepant ideas to flow across networks once they (the ideas and the network) are discovered. And then to do it again and again.

### **Mismatches**

'Mismatches' are failures to 'get out' the knowledge that is the most valuable to the organisation or to *make it valuable* by framing it in a way that makes it usable across time, place, or culture. Knowledge is often being piled up with the hope that people will find it and use it. It is piling up without regard to its relevancy, comprehensibility, or quality. There are three sources of mismatches.

#### *Mismatch 1: Lack of context*

Often a knowledge artifact, such as a PowerPoint presentation, is very specific to a given project or problem, and reflects many unwritten assumptions.

Assumptions could include previous projects, related problems (solved and unsolved), political or economic currents, and localised use of terms or acronyms. For example, a video script for a factory feasibility study might take for granted that the company has already built several facilities of the same size in a given state. So, issues related to obtaining permits may be omitted from the video, even

while such issues could potentially be showstoppers elsewhere.

#### *Mismatch 2: Mixed incentives*

Knowledge originators often face mixed incentives. When contributors are rewarded for volume, many times they mix junk with gem. Knowledge seekers find that the search effort does not pay off. Another mixed incentive pits reusing knowledge up against 'original thought'. Knowledge seekers are less inclined to seek other examples of ideas when they are incentivised to 'invent', not reuse. Meanwhile, originators might hold back, fearing they might not 'get credit' before someone else capitalises on their good ideas.

#### *Mismatch 3: Wrong place*

Many knowledge managers assume that knowledge seekers will 'just find it'. This puts a burden on the seekers. They need to know about a body of knowledge on a topic, understand its relevance to their situation, know about the existence of one or more sources of *this* content, and either search or 'put themselves into knowledge's way'. Seekers have to understand how to be in many places at once, or they need well-planned systems for subscribing to terms (and their synonyms) for describing assets. For a newbie, non-headquarters employee, or an employee working where there is not much investment in search or content tagging, that effort can be a frustrating endeavour.

### **Knowledge jails**

In many knowledge management and DAM programmes, reuse is tremendously elusive. By reuse is meant motivating new teams to consider existing knowledge, to adapt it to their own world, and to put it to work.<sup>3</sup> Knowledge assets get caught in jail — that is, caught in a location, or association that makes them invisible or inaccessible to seekers. Finding the useful

Pugh

stuff may be like trying to find the dog that ate your school lunch by following the lead 'Has fur' (more context is needed). Or, alternatively, it could be like listening to a teenager's monosyllabic response. Either there's so much content there that it is hard to discern what might be applicable, or so little *context* that the nugget looks like all the rest of the sludge. Here are some typical knowledge jails.

### *Jail 1: Info glut*

According to 2010 statistics, 107tn e-mails were sent, of which only 12tn were believed to be legitimate (non-spam). On top of this, 152m blogs were on the internet.<sup>4</sup> Such information overload has been shown to reduce morale and increase anxiety, as people fear that they are missing information they need, and spend more time than they wish weeding through clutter.

### *Jail 2: Language barriers*

When we author documents, we often make assumptions about what others 'ought to know' and we record in a cryptic way. Authors are so often like the Rogers couple in *Amelia Bedelia*, who, when leaving for the afternoon, left her a list of various things to do while they were gone. They thought she knew what it meant to 'draw' the drapes and 'measure' the rice. Had Amelia had a cell phone back in the sixties, rather than 'trimming' the beef with ribbons and 'changing' the towels with shears, she might have called her employer and asked for some context.<sup>5</sup>

### *Jail 3: Prose erosion*

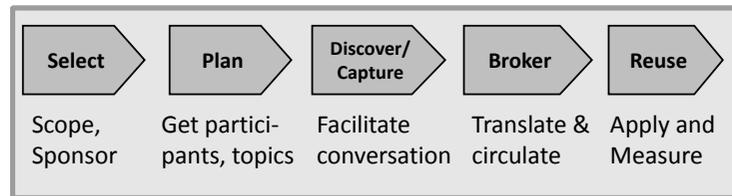
As the use of prose in communication erodes, so, too, do meaning and sense-making in our knowledge assets. Many users of social media seem to unlearn their writing skills. We write in motifs. Storytelling experts argue that frequent texters and Twitter users often omit the very parts of the story, such as background,

that most enable the generation of shared meaning and sense-making. Sadly, this trend is overflowing into documentation for projects, products, and operations. The blog and videoblog, on the other hand, afford prose — and lots of it. However, what blogs gain in language, they lose in interaction. All too frequently, commentators on blogs complement or react, and rarely expand or illuminate, except occasionally on other blogs. The reader becomes lost in all this. The wiki holds more promise: when knowledge originators and knowledge seekers interleave ideas or questions (in prose), some of the generative quality of conversation can be recaptured. A broker or seeker can ask directly for clarification and context. This is not a substitute for meaningful real-time conversation. Yet, even if it is not a release from jail, maybe it is a furlough worth taking.

## **INTRODUCING THE KNOWLEDGE JAM**

The weather forecast for knowledge-transfer using typical tools and methods is not fair: mostly cloudy, with showers and occasional drought. There is often failure to recognise valuable knowledge, the knowledge that could have an impact is rarely brought to the surface, and surfaced for those who need it too late, cryptically, or as indecipherable deluge. Knowledge Jam is a five-step process that addresses these thorny problems of blindspots, mismatches and jails face-on. The five steps are:

1. Select subject.
2. Plan participants and topics (sub-areas).
3. Discover/capture knowledge collaboratively (a 90-minute virtual or in-person event, where comments get projected as they are typed); then
4. Broker that knowledge into action; and
5. Reuse and measure the impact of that reuse.



**Figure 2:** The five-step process of the Knowledge Jam

These steps integrate the Knowledge Jam's three disciplines: facilitation, conversation and translation right from the start. The disciplines are the central capacities of the Knowledge Jam facilitator and participants.

### Discipline 1: Facilitation

Facilitation calls on us to intentionally scan the environment and focus on what is useful, so that the relevant knowledge comes into the open (clearing blind spots). Effective facilitation is essentially boundary spanning. Facilitators make the connections between what may be invisible or get interpreted completely differently across disparate departments or individuals, and cultures. They use the planning process to bring participants on board and orchestrate a Jam event so that practical know-how comes to the surface. In that event, facilitators may help explore how different groups overlap or complement. For example, a facilitator may include representatives from marketing even in an engineering process Jam.

### Discipline 2: Conversation

Conversation calls on us to draw out the meaningful context better to understand and better to apply knowledge. A brief, 90-minute Jam is the right amount of time for knowledge originators (people with experience to share), brokers (seekers) and facilitators to draw out practical meaning (thereby reducing mismatches). A probing conversation between the knowledge brokers and originators can draw out the conditions or context around the facts. (For example, it

might be asked, 'How did you decide to use that application?' or 'Why would you decide to re-approach that target audience?') Making context explicit, in turn, enables the ideas in the room (or virtual room) to travel from one context to a new context. It can also help uncover new connections between events, outcomes, people, politics, etc, that even the originators had not considered. It is just as organisational theorist, Karl Weick, observes, 'How do I know what I think until I hear what I say?'<sup>6</sup>

Conversations can be difficult. People may fear that sharing what they know will make them redundant. People fear criticism. People fear that their hard work will be lost. People fear that someone will 'poach' their top staff. Facilitators help Knowledge Jam participants stay aligned with the company's higher objectives. They foster a tone of curiosity and openness by showing respect and using non-judgmental listening. They treat all participants with dignity. They use different vocabularies to reach into people's diverse cultures and worldviews and draw out ideas. Ultimately, they invite participants to be less defensive and more engaged in putting ideas to work.

### Discipline 3: Translation

Translation calls on us explicitly to involve knowledge seekers in knowledge elicitation and its application (effectively, springing knowledge from jail). It also stresses change management to smooth the introduction and adoption of knowledge into new departments, cultures and geographies.

Pugh

Effective translation is a new concept for many organisations. Above all other participants in the Knowledge Jam, brokers are the most responsible for change management, as they bring back from the Jam new processes and practices into their home organisations. They must know their organisations' needs, show up in the Jam to ensure they capture useful insights, and then, when returning to their organisation, sell what can sometimes be an unsettling message (for example, 'We need to attract this customer in a different way ...').

Translation involves rendering the 'jammed' concepts into familiar terms — reframing, reformatting, re-contextualising and tagging for the next use of the ideas. This is a new paradigm, because knowledge-capture is most often decoupled from knowledge-use. Traditional knowledge-transfer methods focus on vast repositories. By bringing brokers together with originators, we narrow in on the knowledge that needs to be applied, and nothing more. Thus, with the Knowledge Jam, there is less burdensome content accumulation and

more action planning.

With the application of these disciplines of facilitation, conversation and translation, Knowledge Jam promises a big advance in 'sharing hidden know-how'. Knowledge Jam does this in a way that increases productivity, innovation, and job satisfaction.

## References

1. Pugh, K. (2011) 'Sharing Hidden Know-How: How Managers Solve Thorny Problems With the Knowledge Jam', Jossey-Bass, San Francisco, CA.
2. Prusak, L. and Jacobson, A. (2006) 'The Cost of Knowledge', *Harvard Business Review*, Reprint F0611H, November.
3. Pugh, K. and Dixon, N. (2008) 'Don't Just Capture Knowledge, Put It to Work!' *Harvard Business Review*, Reprint F0805C, May.
4. Chait, L., (2009) Boston KM forum, Bentley College, Waltham, MA 10/22/09, quoting RoyalKingdom.com (reference updated). <http://royal.pingdom.com/2011/01/12/internet-2010-in-numbers/>
5. Parish, M. (1963) 'Amelia Bedelia', Harper & Row, New York, NY.
6. Weick, K. E. and Bougon, M. G. (1986) 'Organizations as Cognitive Maps: Charting Ways to Success and Failure', chapter 4 in 'The Thinking Organization', Jossey-Bass, San Francisco, CA.