

The success of an organization's knowledge repository isn't wholly dependent on populating the system, consolidating new knowledge or publicizing underutilized expertise. Here, David Brett and Nick Bontis detail how putting individual talent on the auction block can give incentive to the highest bidder and tangible reward to the seller.

SELLING EXPERTISE TO THE HIGHEST BIDDER

Creating the right incentives for best practice repositories

By David H. Brett, Knexa Solutions and Nick Bontis, McMaster University



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There's nothing worse than asking an employee to add a document to a corporate knowledge repository. If someone has painstakingly researched and prepared a document, the personal cost-benefit scenario suggests the employee will only upload the document if either:

1. It has been specifically requested by an individual in a leadership position and non-performance will result in professional repercussions;
2. There is a high probability that by uploading that document, and thereby making it available to the rest of the organization, it will yield an increase in personal reputational capital.

Avoiding costly mistakes

Knowledge workers make this cost-benefit calculation many times in a day as a transparent exercise and requirement of their position. But many KM professionals lose sight of this universally selfish perspective and often make the assumption that, "If we build it, they will come." The more accurate assumption should be, "If we build it, and give them incentive, they will come."

Any intranet-based investment, whether it's a shared disk drive, an online communities of practice

(CoP), or a best practices database, will eventually result in a near-empty, infrequently used and costly mistake unless a formalized incentive program is also incorporated.

The character of knowledge, however, introduces peculiar problems into markets for it. Unlike most tangible goods, knowledge goods cannot be evaluated until they are revealed, nor easily exchanged with other goods. Any advice, for example, cannot be tested before it's given or be withdrawn after it's given. And the giver can't prevent the receiver from disseminating it to others, limiting rivalry for the possible resale of the advice. Digitized explicit knowledge is also subject to the ability of Web-users to instantly replicate and globally disseminate it at no marginal cost. Traditional economic theory states the price of any good with a marginal cost of zero should be zero.

Take for example the KM initiative of launching an online best practices database. Is it "worth it" for an employee to inform a co-worker that there is a superior way to undertake a given task, or is it "too much trouble?" Should an employee bring inefficiencies to the attention of management, or would the price paid for speaking out be too dear in terms of time, recrimination or lack of recognition? What extra benefit is conferred for sharing cost-cutting innovations? How can a highly educated employee be sure that a new co-worker's knowledge is similar, given that published credentials may not be a good indication?

Knexa

is a consultancy and services provider that designs products to aid collaboration and knowledge sharing to various organizations. Their clients include not-for profits, government research agencies, Fortune 500 businesses, and small entrepreneurial teams.

KEYPOINTS

Each knowledge transfer between individuals in the firm is an informal but significant economic transaction and frequently based on reciprocity. Agents in the market must keep score in order to determine whether or not a transaction will maximize their own utility. In each case, the communication of discrete knowledge assets inside the organization involves issues of cost, price, imperfect information, and supply and demand characteristics. Unless employees in an organization are rewarded either implicitly or explicitly they are less likely to share their know-how. A market mechanism provides various options for pricing knowledge, which can be used to reward employees. In fact, as Kevin Desouza and Yukika Awazu wrote in “Constructing internal knowledge markets: considerations from mini cases” in the International Journal of Information Management, “the internal knowledge market is to twenty-first century knowledge management what the campfire was to prehistoric storytellers – a place for all organizational and cultural knowledge to be preserved and promulgated.”

The market model

Some companies have had a rudimentary internal market for decades – where one part sells products and services to other departments. For example, centralized functions such as IT often charge other groups in the organization for their services. In this case, senior executives negotiate a predetermined price for internal transfers. Web-based technology makes it possible to benefit from internal market structures for knowledge-based assets such as expertise and know-how. It’s the harvesting of such intellectual capital that is the key outcome of knowledge management initiatives.

Corporate knowledge exchanges (CKEs), like CoPs, online forums, etc. attempt to replicate (inside the organization) the vibrant marketplace dynamic characteristic of “Agora” style e-businesses such as eBay. Most existing commercially available CKE offerings have evolved from e-business strategies often referred to as “eBays for knowledge.” CKEs usually retain many of the elements of peer-to-peer online auctions, such as rating systems for users, subjective feedback, treating knowledge objects as “listings” owned by participants, and giving exposure to “popular” objects and authors.

In the CKE paradigm, members of the organization are quasi-arms-length economic agents who exchange explicit knowledge objects. They aren’t neutral units, accessing information owned by the firm. Instead, CKE participants have a degree of ownership over their own knowledge

- Many KM professionals often make the assumption that “If we build it, they will come.” The more accurate assumption should be, “If we build it, and give them incentive, they will come.”
- The underlying assumption in CKE design and philosophy is that knowledge, whether explicit or tacit, flows in markets, and that web technologies can automate and improve certain aspects of these markets.
- Unless employees in an organization are rewarded either implicitly or explicitly they are less likely to share their know-how.
- The role of corporate knowledge exchanges in the evolution of intranets, portals and other online KM tools is best understood in the light of labor market economics and how Web technologies are altering those markets.
- Unlike traditional portals and knowledge repositories the primary purpose of CKEs is not to point to pre-existing knowledge stores, but to elicit and capture new knowledge contributions, and to discover and publicize underutilized expertise.

assets, requiring specific pricing and payment.

To varying degrees, CKEs mirror the Agora-like online free-agent employment markets in regard to posting and searching résumés, skills-matching capabilities and the ability to build and advertise reputational information. The underlying assumption in CKE design and philosophy is that knowledge, whether explicit or tacit, flows in markets, and that web technologies can automate and improve certain aspects of these markets.

Speeding up the internal market with technology

In this light, the role of corporate knowledge exchanges in the evolution of intranets, portals and other online KM tools is best understood in the light of labor market economics and how Web technologies alter those markets. The Internet impacts not only how employers find employees, but also the way the work is carried out. Computer networks drastically lower the cost of publishing and accessing employee and employer information,

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Figure 1: Online Knowledge Exchange Landscape Matrix

	Intellectual Property	Human Capital
Excludability ↑	<p>Industrial Property Inventions/Patents; Trademarks; Industrial Designs; Geographical Indications</p> <p><i>E-business Models:</i> Patent and License Exchanges; Idea Incubation Systems</p>	<p>Services Employment; Consulting; Service Contracts; Solution Delivery</p> <p><i>E-business Models:</i> Resume Boards; RFP Boards; Expert Matching Systems</p>
	<p>Copyright and Related Rights Written works; Music, Audio, Film and video; Visual Images; Works of art</p> <p><i>E-business Models:</i> Digital stores and Exchanges; E- learning, Expert Q&A</p>	<p>Virtual Services Video, Web and Telephone Conferencing</p> <p><i>E-business Models:</i> E-learning, Web-matced/Phone-fulfilled consulting</p>
	Codified Content = Unit Pricing	Human Input = Time-based Pricing

○ resulting in a massive increase in online job-board use, yielding significant economic efficiency gains. The ability to perform work remotely also has the effect of significantly reducing geographic constraints on employment. Lower job search costs for employees and employers enable greater ability to evaluate the market value of given levels of knowledge, skill and experience. Simultaneously, the ability to perform work via the Internet lowers the cost of switching between employers and employees. These factors, according to labor market theory, will result in overall productivity gains in the economy. Proponents of CKE strategies suggest that similar productivity gains can be realized inside the organization through application of comparable technologies.

Linking talent and innovation

According to IBM global services executive for KM Scott J. Smith: “The need to trade knowledge is increasing not only within companies, but also between companies in the rapidly emerging trading networks. Combining knowledge exchange technologies with significant organizational change

will finally unleash the expertise in larger organizations and drive innovation to compete in the e-business economy.” The linkage between expertise and innovation is significant. The constant evaluation by employees of their job options or lack thereof may have a harmful effect on how liberal they are with sharing and utilizing their knowledge in the workplace; an employee who receives an unsolicited email from an online job market asking, “Are you earning what you’re worth?” will be demotivated to reward the organization with new ideas. Alternatively, an employee who answers “yes” may conclude his or her knowledge output is adequate and will not be motivated to increase productivity.

CKEs attempt to counter potential expertise underutilization by creating internal market forces that provide substitutes for external benchmarking of talent through financial proxies. In regard to the rise of knowledge market business models, Drew Clark of the KM Project Office at IBM advises that companies that can successfully adapt themselves to the market-based environment will have a distinct advantage in optimizing their knowledge sharing and in winning the war for talent.

KM Review interviewed Nick Bontis about how a corporate knowledge exchange works in practice

How do you implement economic benefits directly into the CKE technology at Knexa?

Bontis: There are two sets of inter-related point systems. The first we call Silver ICUs (Intellectual Capita Units), or points a user receives for “primary” knowledge behaviors like creating a personal profile, posting a question or uploading a document. But the critical objective of a CKE is to promote Gold ICUs from “secondary” knowledge behaviors like updating a personal profile or incrementalizing a document. Primary KM behaviors establish a firm’s static knowledge repository, while secondary ones lead to useful intellectual capital, innovation and action.

How can CKEs foster sharing of potential innovations by creating paper trails to be used to substantiate ownership?

Bontis: Every user has access to their own ICU points and how they generated them, so there’s a complete audit trail of how new knowledge in the firm develops. These audit trails are available to all users so everyone has access to the paper trails that substantiate ownership of new ideas.

Can there be multiple ownership of knowledge in the firm?

Bontis: Absolutely. A point system automatically calculates the pro-rata trickle down rates of all of the follow up review scores so that any collaboration that takes place is appropriately rewarded.

What technology and cultural requirements are needed to make a system like this work?

Bontis: From an IT perspective, a good candidate has users with significant desktop interface. The key is getting the company’s HR department up to speed with the incentive and reward methodology, which must align with the corporate HR and compensation program. ICUs can even be tied to stock options, and pre- and post-diagnostic survey work to test efficacy can tie in directly with a KM audit.

Reputation management

Another element of the Agora business Web paradigm is the ability to overcome imperfect and asymmetric information through reputation management systems. The collectible items that are the mainstay of eBay are very difficult to decisively evaluate without physical inspection, and significant risk is involved in proceeding with a transaction. As with résumés in the labor market, antique sellers embellish, selectively disclose, and outright falsify information to induce a sale. The cure in both cases is ensuring the seller’s good reputation by getting testimony from prior customers/employers. The eBay model involves individuals effectively building personal brand recognition through a simple but effective rating and review system. Similar reputation systems are used by public knowledge exchanges like Knexa. Personal reputation systems in the context of an exchange can be applied to internal markets as well.

Addressing the problems

Explicit knowledge as copyright intellectual property adds to the innate sense of ownership authors have, regardless of the contractual obligations implicit in employment. Some CKEs try to overcome the potential resistance to publishing knowledge content in public databases by incorporating economic benefits directly into the

technology. Standard economic units, on the other hand, do not easily value industrial property such as an invention. Complex due diligence and negotiating are typically involved in cases where employees are compensated for intellectual property (IP). However, CKEs can foster sharing of potential innovations by creating a “paper trail” to help substantiate ownership by individual or team creators.

CKEs, like online auctions, incorporate many features of intranet-based tools, such as taxonomies, categorization schemes, data storage capacity, CoPs and common browser interfaces. Unlike traditional portals and knowledge repositories, however, the primary purpose of CKEs is not to point to pre-existing knowledge stores, but to elicit and capture new knowledge contributions, and to discover and publicize underutilized expertise.

The knowledge to currency conversion

To do this, the senior management of a firm with 500 employees, each with a desktop access to an intranet-based Web-space, yearns to harvest the full intellectual capital potential. So it appreciates the precepts of KM and decides to invest in and implement three traditional Web-based tools: an expertise locator, a Q&A message board and a centralized document repository.

The first challenge is populating the system. Most employees invited to a knowledge exchange will typically go online to look, but seeing the system empty and valueless, they won't find real use and will never come back.

But suppose users are provided with incentives to post their personal profiles on the system first. What currency would be used? Assume each user has access to an electronic wallet within which they could collect electronic tokens. Let's call these tokens intellectual capital units (ICUs). In the above example, senior management would announce that users who upload their personal profile on the CKE will receive 100 ICUs, which begs the question, “What can I get for 100 ICUs?”

Senior management, therefore, establishes a customized redemption reward schedule for each employee. Everyone is motivated by different things, so each employee requires a personalized solution to the cost-benefit dilemma.

After a profile is submitted, it may contain highlights of a résumé, a biography, recent projects completed or personal expertise. These fields would be searchable, thus yielding to subsequent users the opportunity to find what knowledge exists in the firm. The objective is to make all knowledge-based activities correspond to an ICU transaction that

economically benefits the users.

Next, knowledge workers typically either create new knowledge or incrementalize existing knowledge. Once a project starts, several users upload documents to support it. Then, once again, it will elicit a corresponding employee ICU transaction to stimulate the intellectual capital of the firm. As more individuals access and view those documents, more ICU transactions will find their

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way into the original author's wallet.

Ultimately, the documents themselves also get reviewed by various users. This is important because in addition to authors developing their own reputational capital, the documents themselves receive aggregate review scores from various consumers. This allows certain documents to gain greater prominence in the repository. So the system allows the best knowledge to rise to the top.

Such a Web-based tool has many standard KM features found in other software solutions, but the unique distinction is it sustains market liquidity by giving rewards for its use. The firm then benefits from this knowledge harvesting.

Harvesting talent

Such a solution is not appropriate everywhere. A CKE initiative requires strong commitment from C-level executives and a KM team that is as strong with its people as it is with its technology.

As more work becomes knowledge-based, employees will feel a stronger sense of ownership to their own intellectual capital. There's a fine line between having loads of company talent and harvesting it fully. Implementing a “corporate knowledge exchange” is the first step to managing that tension efficiently and effectively. KM REVIEW

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