



# At Cross Purposes

## *Why e-learning and knowledge management don't get along*

“Two houses, both alike in dignity...” — *Romeo and Juliet*, Shakespeare

A Learning Light research report on the potential for deriving more value and demand from e-learning as an integrated component of knowledge management

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### Abstract

Despite the strong theoretical case for integration between knowledge management and e-learning, it has not yet been achieved on any substantial scale. The roots of this lie in differing histories, confusing language and conflicting assumptions about the nature of learning and knowledge. Nevertheless, the benefits of integration appear real.





The barriers are identified and possible approaches articulated. E-Learning suppliers appear to face the greater opportunities but also the greater risk from integration; next steps for them are proposed.

## Introduction

“While KM practices have largely fallen short of their ambitious goals, e-learning has revitalized training’s star as a strategic tool” — *Clark Aldrich<sup>i</sup>*

“e-Learning solutions often do not consider that corporate learning takes place in an organizational context and that learning goals are based on real-world needs” — *Ras, Memmel & Weibelzahl<sup>ii</sup>*

“Knowledge is a noun, learning is a verb” — *Donald Clark<sup>iii</sup>*

The literature about the relationship between knowledge management and e-learning is extensive and conflicting. But the case for integration is a persistent theme in the literature of both fields. In practice, they rarely work together.

Drawing on interviews, literature and the researchers’ experience as practitioners, this paper:

- summarises current thinking and current practice,
- offers explanations for the gap between the two,
- articulates the potential benefits of closing that gap,
- identifies the changes suppliers and customers would have to embrace in order to realise the benefits, and
- identifies in more detail some possible next steps for e-learning suppliers.

This last point is central to the purpose of the research that underlies this report. This report aims to provide e-learning providers with guidelines for action.

## Current situation<sup>iv</sup>

We interviewed practitioners in major knowledge organisations<sup>v</sup> that use, and advise on the use of, both knowledge management and e-learning. There was little day-to-day connection between the two functions. In one case, the head of knowledge management reported “senior management just isn’t interested in e-learning”... and her previous role was head of e-learning.

The literature reveals a wealth of thinkers who advocate a union in future, but no accounts of substantial and enduring unions achieved. Announcements of major initiatives can be found, but not subsequent accounts of the outcomes. Writers have been predicting a closer relationship between knowledge management and e-learning for a long time, but it doesn’t appear to have happened.

The two fields are in a state of rapid change. They use incompatible technology infrastructures. Neither field has yet fulfilled the high expectations upon which it was launched; for example:



- “Since the mid 1990s, e-learning has consistently under-achieved its predicted take-up levels” (Clive Shepherd<sup>vi</sup>)
- According to Bain and Company, knowledge management is one of executives’ least-favoured tools: “the usage figure puts knowledge management in 19th position, out of 25 management tools”<sup>vii</sup>

How did this happen?

### ***Analysis of current situation***

Both fields are evolving, both are at the “frontier town” stage. Suppliers and customers do their best to make sensible decisions while the world around them changes fast. There are some substantial investments, especially in e-learning (though supplier margins are modest). Major successes are rare.

E-Learning grew out of HR and training departments and has evolved into a class-in-a-box model. It happens as an interruption to work, it is shaped into lessons that cover topics thoroughly and systematically, and it reflects what sponsors think employees should know. This strategic bias makes it hard for employees to use e-learning tactically.

Knowledge management grew out of IT and methods departments and has evolved into a corporate storybook. It has the ability to convey, in detail, how the business has solved problems in the past. But the utility of each story depends on the skill with which it is written and tagged. And knowledge management has little to say about situations that the business hasn’t encountered yet. So employees have to decide whether to invest time looking for a solution that might not be there, or – worse – that looks more helpful than it will turn out to be.

In short, knowledge management set out to be strategic but has turned out to be too fragmented and anecdotal, while e-learning set out to meet tactical needs but got hijacked as a medium for strategic messages. Neither model appears to be as effective as it could be.

Yet, when crafted thoughtfully, knowledge management and e-learning products share features: e-learning that is rich with links to knowledge sources and collaborative tools, knowledge management with the pace and style of the best e-learning. Examples of such thoughtful crafting are hard to find, but a model worth looking at is the collection of tools and systems developed for the NCSL<sup>viii</sup> as the basis of its blended learning strategy: the Talk2Learn collaboration platform, the Learning Gateway and its growing library of e-learning resources.

### ***Benefits of integration***

In a world where we all need to learn more, more often, and technology offers a broader, more confusing, palette of options, it makes intuitive sense to the researchers that knowledge management and e-learning should work more closely together. Both fields aim to apply corporate knowhow to meeting business objectives, and it seems absurd that managers are unable to make seamless trade-offs between the two:



- Businesses that train their people better have less need for knowledge management. Those with effective knowledge management need less training
- When employees search a knowledge source, they'd be open to relevant e-learning solutions as well. When they look for training, they might be helped by relevant knowledge management content as well
- When a business captures expertise, it should be able to make an even-handed decision between putting it in the knowledge management system and creating an e-learning (or both)

If the two approaches were used more closely together this ought to provide a more flexible set of options to meet organisations' learning needs, each might be able to address some of the weaknesses of the other, and using them together should reduce wasted investment in learning.

#### Issues of definition

"When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean – neither more nor less." — *Through the Looking Glass*,  
*Lewis Carroll*

Attempts to build understanding within and between knowledge management and e-learning are hampered by issues of definition:

- Each field uses everyday words in counter-intuitive ways
- There are some words that are used by both fields, but to mean different things
- There are important distinctions for which no generally-accepted language has yet emerged

#### **Counter-intuitive language**

In everyday language, to learn is to gain understanding or ability from experience. That experience might be an unforeseen situation or event, undertaking an activity for the first time in a planned way, or an experience shaped by others for the purpose of bringing about learning. The last category is generally thought of as training (or coaching if it is personalised).

When the training profession re-branded itself as the learning profession in the 1990s, linguistically it distanced itself from midwifery and became the baby. Computer-based training became e-learning, when a more intuitive term might have been e-coaching.

The knowledge management profession deals not in the everyday concept of knowledge – something that exists in people's heads as potential performance – but in information about such knowledge. When it was deciding what to call itself, however, "information" had already been taken by the data processing industry and reaching for the next word up was perhaps understandable.



So when learning professionals say “learning” and when knowledge management professionals say “knowledge”, neither is conforming to everyday conversational usage.

### ***Shared words with different meanings***

When knowledge management people talk of learning, sometimes it’s in the loose, conversational sense and sometimes it refers to that moment when knowledge – potential performance – becomes actual performance: “Learning is knowledge in action” (Harreld<sup>ix</sup>). What they do not mean is training.

The learning profession has long used knowledge as one of three types of learning objective that inform the training design process: knowledge (factual material), skills (job performance) and attitudes (perceptions and beliefs).

So both knowledge management and learning professionals use each other’s words in different senses, neither of which conforms to conversational usage.

### ***Unstable language***

In any emerging field there tends to be an evolution:

1. The big idea that’s going to change the world
2. Early implementations that try out different elements of the idea
3. Convergence towards what suppliers can understand and do, and what customers can understand and use
4. Cautious diversification into some of the more difficult areas in the struggle for differentiation

After that, cycles of 3 & 4 ensue... which might or might not ultimately fulfil the original big idea.

The researchers contend that both knowledge management and e-learning today stand at the threshold of stage 4.

### ***The big ideas***

The big idea of knowledge management is to use technology to make the knowledge contained within the business available to all employees, when they need it.

The big idea of e-learning is to use technology to put training and coaching at the disposal of employees in such a way that they can learn what they need, when they need it.

### ***Current implementations***

The current implementation of knowledge management is, in essence, databases. These knowledge stores are populated with materials that express or illuminate the business’s past success stories. It has been widely criticised on the basis that you can’t “manage” knowledge as you can physical assets, but it is undoubtedly useful for



some applications and some types of knowledge. We'll call it "database knowledge management", or DKM.

Current e-learning has evolved de facto standards for templates, methods, use of media and so on. It is useful for basic-level training, compliance and information delivery (see Kounadis<sup>x</sup>). We'll call it "transmission e-learning", or TEL.

### **Emerging ideas**

The emerging ideas in knowledge management concern community and collaboration, with technology supporting connections and relationships, rather than storing information. We'll call it "collaborative knowledge management", or CKM. Current preoccupations are community-building and storytelling.

The emerging ideas in e-learning are about networks, collaboration and more diverse methods, and developing systems that "...liberate and support learners to decide and control their direction and process" (Stephenson<sup>xi</sup>). We'll call this "networked e-learning", or NEL. Current preoccupations in the industry are diverse and contradictory, on the one hand concerning templating, commoditisation and rapid development authoring tools, and on the other, more sophisticated forms such as games, simulations and powerful collaboration systems designed to cultivate informal learning<sup>xii</sup>.

The commonalities between CKM and NEL are clear. The language they use is not.

### Issues of practice

"...an obsessive fascination with the idea of knowledge as content, as object, and manipulable artefact [...] accompanied by an almost psychotic blindness to the human experience of knowing, learning" — *Patrick Lambe*<sup>xiii</sup>

Beyond the linguistic minefield lies another: different assumptions about the nature of knowledge and learning.

This is not the place for an academic debate about the nature of knowledge and learning, but it's worth reflecting on a couple of apparent mismatches.

It has long been a central tenet of the learning profession that adult learning is a purely voluntary affair. Malcolm Knowles's<sup>xiv</sup> model of adult learning stresses the importance of negotiating learning goals with learners, of meeting their expectations and immediate needs. The less veiled anonymous version is that "training adults is like driving a bus... if you do not take people to where they want to go, they get off". It would therefore be reasonable to expect e-learning to use every trick in the book to engage and motivate learners. That expectation goes largely unmet.

For its part, the knowledge management profession tends to subscribe in principle to the idea that "knowledge is between two ears and only between two ears" (Peter Drucker<sup>xv</sup>) while its products are predicated on an assumption that knowledge can be stored and managed in order to safeguard corporate intellectual capital.



Many assumptions about learning, in particular learning with technology, are based on behaviourist and cognitivist traditions. Yet current views are that knowledge and learning are social and/or that we construct knowledge, not absorb it. This has a direct impact on what we think knowledge management and e-learning are, and their role in organisations. For example, social learning theorists might argue that knowledge lies in the relationships between people; so it can be neither stored nor delivered. Constructivists might argue that as we each create knowledge, not absorb it, it cannot be managed or measured.

Outside that debate, an organisation's view of knowledge and learning tends to reflect its view of its core business process: industrial or post-industrial. "The industrial model broke down work into its simplest elements and linked it together in complex processes. The knowledge component was removed from workers and reserved for management, [...] a mental model that is deeply imbedded in [...] tacit assumptions, policies, rewards, and evaluation systems"<sup>xvi</sup>.

**Engaged or divorced? The e-learning/knowledge management relationship**

"A pair of star-crossed lovers" — *Romeo and Juliet*, Shakespeare

So the two fields have evolved down separate paths, and are divided both by the words they use and by some of their fundamental assumptions about users. Are they a couple who've tried living together and emerged convinced of their incompatibility? Or star-crossed lovers who might, in time, overcome the obstacles? Given that accounts of unions are generally couched in the future tense, the latter seems more likely.

Businesses that have announced initiatives to connect the two fields include BT, Cisco, Pfizer. We await reports of the outcomes. Until then, is there a place where businesses can look for synergies between knowledge management and e-learning?

The relationship between e-learning and knowledge management depends on the learning and knowledge needs of the organisation. It is likely that many organisations will need varying combinations of current and emerging e-learning and knowledge management.

**Current/current**

Knowledge management and e-learning have both evolved into products that suppliers can understand and deliver and that customers can understand and use.

As those customers gain in understanding they are in a position to demand and implement linkages while remaining within the transmission e-learning (TEL) and database knowledge management (DKM) models:

e-learni	NE	Community link to KM resources	Very little apparent difference; close integration
	TE	e-l course and KM share objects/ components	Community collaboration as add-on to course





- Add knowledge management links to e-learning products and e-learning links to knowledge management products
- Use knowledge management enquiry logs as an input to decisions about training development
- Treat the material and knowhow gathered during the training design process as potential knowledge management content. (Woelk and Agarwal<sup>xvii</sup> assert that this routinely happens, but it is by no means clear that it does.)

The underlying objects exist. Businesses could start to manage them as a single herd.

### ***Current/emerging***

Businesses that use DKM and some networked e-learning (NEL) have, perforce, begun to establish learning communities. This appears a strong platform from which to grow into collaborative knowledge management (CKM) by wrapping new knowledge management resources around the existing communities.

Businesses that use TEL and some CKM are in a similar position: the communities are there – all they need is new tools for collaborative learning.

### ***Emerging/emerging***

Intuitively, those businesses with the commitment and skills to be early adopters of NEL and CKM ought to have the least to do to bring them together. The little evidence available suggests the opposite.

One of our interviewees – from a consulting business – commented that if they had shackled the two together from the start they would have got nowhere with either. Success came from giving visionary practitioners in each field their head. Does further success now depend on reigning them in?

The drivers for convergence appear irresistible. NEL furnishes employees with tools to enrich products and to link them to other products... or it soon will. CKM furnishes employees with tools to enrich products and to link them to other products... or it soon will. Once employees have these tools (and the time and permission), the convergence of knowledge management and e-learning will be brought about by the internal market.

### ***Why bother? The benefits case***

“E-learning could be a cornerstone of knowledge management” — *Verna Allee<sup>xviii</sup>*

“E-Learning puts the K into KM” — *Roger Williams, PA Consulting*

Given that there appear to be few successful cases of knowledge management and e-learning working closely together, we can only conjecture as to the possible benefits.



Both functions exist to promote improved job performance in areas that are important to the business, and therefore must concern themselves with the same subject matter. It appears wasteful to undertake this work in disconnected ways, in different departments... leaving employees to make sense of disparate sources.

Another inefficiency occurs at the systems level. Knowledge management systems and learning management systems are, at root, just databases. And they are bought and managed separately.

As already noted, knowledge management set out to be strategic but has turned out to be too anecdotal, while e-learning set out to meet tactical needs but became a medium for strategic messages. It does seem intuitively clear that each could maximise its strengths and cover the other's weaknesses if tactical and strategic needs were addressed holistically.

Finally, as both fields gravitate towards the view that collaborative approaches work best for their clients, it would seem a lack of faith in their own prescriptions if they fail to collaborate with each other.

### **Barriers to successful integration**

"These groups do not really speak the same language, making the connection difficult" — *Janet McAllister, ex-IBM, speaking about HR, training and KM staff*<sup>ix</sup>

It is evident that there are major barriers to integration.

Just as the scope for integration depends on the needs and past achievements of the business, so do the barriers. However these generic barriers appear to be widespread:

- **Cultural:** Most businesses harbour different, sometimes conflicting, models of learning and sharing (training culture v technology culture; delivery/broadcast v collaboration/sharing; primacy of team v primacy of self etc.)
- **Organisational:** Knowledge management and e-learning are the responsibilities of different departments; their performance measures conflict; senior management doesn't understand enough about emerging trends to make visionary decisions
- **Buyer sophistication:** The buyers of knowledge management and e-learning products accept what is offered rather than demand what they need
- **Supplier inertia:** E-Learning suppliers have invested heavily in tools and processes for producing content, and knowledge management suppliers in developing software products and providing technology consulting; they perceive little need to change
- **Technology infrastructures:** Knowledge management systems and learning management systems are purchased and implemented separately

Considering the barriers in ascending order of difficulty:



### **Technology**

Technology needs a single infrastructure (as attempted by companies such as Hyperwave and Generation21) and/or the support of standards. But this will mainly help those aiming to connect DKM and TEL. Paradoxically, the more fluid approaches allowed by CKM and NEL allow a looser range of technologies to be used.

Small and medium enterprises (SMEs) have an advantage here. The factors that lead larger organisations to use proprietary systems are scale and complexity. Without those factors, SMEs can use simpler, cheaper and more flexible technologies. With these they can have knowledge management and e-learning products show up in each other's search results, link them richly at the page level, and enable users to annotate materials for the benefit of others in their community.

### **Buyer sophistication**

Successful businesses don't get that way without becoming discerning buyers of materials, goods and services. To become sophisticated buyers of knowledge management and e-learning products they need to realise the rapidly changing, "frontier town" nature of knowledge management and e-learning, and educate themselves thoroughly about how they – separately and together – might solve their business problems.

### **Supplier inertia**

When their customers become more demanding, suppliers will respond (or die).

Knowledge management suppliers will start to offer more flexible technologies, as noted above, and are well-placed to grow into knowledge *and learning* consultancies.

The prospect for e-learning suppliers is potentially both more fruitful and more painful, as articulated in the next section.

### **Organisational barriers**

When senior managers don't understand what e-learning and knowledge management *could* do – rather than just what they happen to do at present – the other barriers are irrelevant. However this is really no more than a special case of the buyer sophistication point.

The configuration of the organisation itself is a more substantial issue. One of our interviewees put it bluntly: "To look at the learning and knowledge mission statement you'd think we were all one happy family. But we virtually never talk day-to-day. Learning is measured on participation and knowledge management on the number of calls, so we're effectively competing. And our processes don't help – we have no mechanism for proposing a joint solution to the business's needs."

This might be an extreme case, but not necessarily: it comes from a business with an excellent external profile for its e-learning and knowledge management achievements.



It is the researchers' view that knowledge management and e-learning departments should be brought together, not just in terms of physical proximity and reporting lines but also in terms of harmonised objectives and compatible performance measures. Without such changes, they will continue to compete for resources instead of collaborating to meet business needs.

### **Cultural barriers**

As in any endeavour, cultural barriers, those thrown up by the conflicting values underlying different parts of organisations, will be the hardest and slowest to overcome. They will need open minds, some serious investment in developing people, a sharp focus on what the business needs and outstanding leadership. This will be the supreme test of CKLOs (Chief Knowledge & Learning Officers).

### **And problems at home...**

It's important to remember that, in addition to issues relating to integration, each of the two prospective partners has its own problems. Many employees are unfamiliar and uncomfortable with sharing knowledge (see Kinsey Goman's<sup>xx</sup> paper on this), they don't understand their knowledge management systems, and can't see the benefits. Many employees find e-learning an unrewarding and ineffective imposition. There are no widely accepted success measures for either knowledge management or e-learning. So in addition to understanding and overcoming barriers to integration, both prospective partners have some maturing to do.

### **E-Learning providers' next steps**

While this report has aimed to deal even-handedly with knowledge management and e-learning, it is time to declare the researchers' conviction that e-learning suppliers have more to gain or lose from the coming convergence. The fragmented, small-scale UK e-learning industry could use integration to step up a level and consistently gain the attention of board-level decision makers. Or it could slip into cost-conscious commoditisation and await the double-whammy of more innovative industries encroaching on its high ground while ultra-cheap producers from India and China – and learners themselves – erode its bread-and-butter work.

### **SWOT analysis**

Consider this SWOT analysis for the e-learning industry and its relationship with knowledge management:

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"><li>• Companies generally profitable</li><li>• Medium/large companies have loyal client base</li><li>• Understanding of learning theory and practice</li></ul>	<ul style="list-style-type: none"><li>• Companies generally small in comparison to clients and KM companies; low supplier power</li><li>• Limited vision of knowledge industries and knowledge working</li></ul>



- Some sophisticated interaction design skills
- Growing professionalism in most component disciplines: project management, learning design, interaction design etc.

- Limited ability to invest in growth
- Difficult to create/sustain maintain differentiation
- Efficiency/cost requirements of clients has driven companies to adopt over-rigid production methods, with low levels of creativity

### Opportunities

- Develop premium content
- Sell rapid development tools into KM markets
- Increase perceived value by exploiting knowledge gathered during learning design process
- Build out networked learning solutions to support communities of practice and other forms of collaborative learning
- Offer consulting as a business line (not a sales give-away): technologies; learning & knowledge design
- Develop products that support informal learning methods

### Threats

- Business models based on content development; risk of commoditisation and undercutting by ultra-low cost suppliers and by clients (and learners) who build their own low-end content
- Encroachment by KM companies, with greater access to investment and broader vision
- Delicate reputation; improving slowly but vulnerable both to the small number of further large-scale failures (e.g. UKeU, NHSU) and many small-scale problems
- More innovative suppliers (e.g. games producers) hijack the industry and take high margin, premium projects

### Implications and conclusions

Our analysis suggests a number of next steps for e-learning suppliers to consider as a matter of urgency:

- **E-Learning commercial models need to be addressed.** Exclusive reliance by e-learning companies on content production is unlikely to be sustainable. They can't compete on cost with offshore suppliers, and basic level e-learning often provides relatively low value. Developing expertise in integrated e-learning and knowledge management services provides an opportunity for e-learning companies to create greater value, rather than constantly looking for ways of cutting cost.
- **E-Learning suppliers should examine where they genuinely create value.** Often it's not in the content they produce; it's in the awareness of organisational learning problems that they surface. There are significant opportunities for consulting with clients at organisational knowledge level.
- **E-Learning suppliers should consider additional markets for their skills.** Given their diverse skill base (technology, usability, design, media, writing etc.), e-learning companies can also consult in a very wide range of areas: clients wanting to undertake rapid e-learning development as part of their integrated learning activities, project management for learning technologies, technology consulting and so on.



- **E-Learning suppliers need to upskill themselves.** As increasingly sophisticated customers place greater demands for more complex, refined and nuanced solutions, it will no longer be sufficient to express their corporate knowhow primarily through sets of well-established templates. They'll have to return to real knowledge, including a practical understanding of the changing beliefs and theories associated with learning and knowledge.

Or die.

Between them, researchers **Patrick Dunn** and **Mark Iliff** have over 30 years' experience of knowledge management and e-learning, both as practitioners and senior managers.

[patrick@networked-learning.com](mailto:patrick@networked-learning.com)  
[mark@talespinner.co.uk](mailto:mark@talespinner.co.uk)

## Notes

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<sup>i</sup> Clark Aldrich of GartnerGroup quoted in "A Smarter Frankenstein: The Merging of E-Learning and Knowledge Management" by Tom Barron, 2000 ([tinyurl.com/aykbc](http://tinyurl.com/aykbc))

<sup>ii</sup> "Integration of E-Learning and Knowledge Management – Barriers, Solutions and Future Issues" by Ras, Memmel & Weibelzahl, 2005 ([tinyurl.com/7lw2o](http://tinyurl.com/7lw2o))

<sup>iii</sup> "Knowledge management and e-learning – An EPIC White Paper" by Donald Clark, 2003

<sup>iv</sup> This analysis relates mainly to the UK and other English-speaking territories. While we did not come across counter-examples in other territories, neither did we make it a major focus to look for them.

<sup>v</sup> Interviewees represented BBC, IBM Consulting, PA Consulting and PricewaterhouseCoopers. Note that the focus of research was on e-learning and knowledge management for adults in organisations whose primary aim is not educational.

<sup>vi</sup> Clive Shepherd, Director of e-learning, The Training Foundation ([tinyurl.com/ce7ev](http://tinyurl.com/ce7ev))

<sup>vii</sup> "The nonsense of knowledge management" by T.D. Wilson 2002 ([tinyurl.com/2lupn](http://tinyurl.com/2lupn))

<sup>viii</sup> The National College for School Leadership ([tinyurl.com/aauk8](http://tinyurl.com/aauk8))

<sup>ix</sup> "Viewpoint" by J. Bruce Harreld, IBM senior vice president of strategy ([tinyurl.com/axog4](http://tinyurl.com/axog4))

<sup>x</sup> "E-Learning and Knowledge Management at the Crossroads" by Tim Kounadis, 2001 ([tinyurl.com/bdgrb](http://tinyurl.com/bdgrb))

<sup>xi</sup> "Using e-learning at work" by John Stephenson; International Centre for Learner Managed Learning (ICLML), Middlesex University

<sup>xii</sup> For an interesting, if somewhat zealous overview of informal learning, see Jay Cross's blog ([tinyurl.com/4oac9](http://tinyurl.com/4oac9)). For a more wide-ranging view, see <http://infed.org>.



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- <sup>xiii</sup> “The Autism of Knowledge Management” by Patrick Lambe ([tinyurl.com/96v26](http://tinyurl.com/96v26))
- <sup>xiv</sup> “Andragogy in Action. Applying modern principles of adult education” by Malcolm Knowles, 1984
- <sup>xv</sup> Peter Drucker reported by Kotzer, 2001
- <sup>xvi</sup> Scott Beaty, Director of Knowledge Management, Shell Oil Company quoted in “Beyond Knowledge Management: New Ways to Work and Learn”, Brian Hackett, 2000 ([tinyurl.com/bv2s6](http://tinyurl.com/bv2s6))
- <sup>xvii</sup> “Integration of e-learning and Knowledge Management” by Darrell Woelk & Shailesh Agarwal, 2002 ([tinyurl.com/ddvsy](http://tinyurl.com/ddvsy))
- <sup>xviii</sup> “E-Learning is not Knowledge Management” by Verna Allee; LineZine ([tinyurl.com/ccd9x](http://tinyurl.com/ccd9x))
- <sup>xix</sup> “A Smarter Frankenstein: The Merging of E-Learning and Knowledge Management” by Tom Barron; Learning Circuits, August 2000 ([tinyurl.com/aykbc](http://tinyurl.com/aykbc))
- <sup>xx</sup> In “Five reasons people don't tell what they know” by Carol Kinsey Goman, 2002 ([tinyurl.com/dd4qu](http://tinyurl.com/dd4qu)), she identifies: 1. People believe that knowledge is power; 2. People are insecure about the value of their knowledge; 3. People don't trust each other; 4. Employees are afraid of negative consequences; 5. People work for other people who don't tell what they know

## Other sources

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- Wikipedia knowledge management entry in July 2005 ([tinyurl.com/demch](http://tinyurl.com/demch))