Flexible learning and the flexible worker

A BT White Paper

By Dr John Gundry, Knowledge Ability Ltd
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Through flexible working, work has moved from ‘some place, fixed time’ to ‘any place, any time’. But if flexible workers’ work has moved any place, any time, what about their opportunities to learn? In fact, based on approaches and technologies very similar to those that support flexible working, e-learning can now underpin flexible learning for the flexible worker.

Flexible working is increasingly attractive to organisations and their staff for compelling reasons of cost saving, productivity and work-life balance. At the same time, e-learning is earning a reputation for bottom-line impact and return on investment. This paper examines the fit between the two. Do flexible working and e-learning go hand in glove, or would organisations that have implemented the former find it difficult to implement the latter?

This paper proposes that these are complementary approaches: e-learning underpins flexible learning that fits the workstyles of flexible workers. Indeed without e-learning to enable flexible learning, the benefits of flexible working will be muted. In support of this proposition, the paper reviews individual e-learning tools and shows how they support the flexible delivery that flexible workers need; delivery that is at my place or any place, and at any time or at least flexible times.

Two significant programmes within BT are reviewed to illustrate e-learning supporting flexible workers. The paper concludes by describing future developments to increase the flexibility of learning available to flexible workers.

1. Introduction
2. The business environment

Two powerful forces are changing the landscape of work and learning: flexible working and e-learning.

Flexible working

Many organisations today are realising the benefits of flexible working. There are a number of drivers, including cost savings, better work-life balance, increased motivation and flexibility, and greater staff retention.

BT has widely adopted flexible working, and defines a number of flexible workstyles (see Table 1).

Table 1. BT’s definition of flexible workstyles

<table>
<thead>
<tr>
<th>FLEXIBLE WORKSTYLE</th>
<th>WORK PATTERN</th>
<th>EXAMPLE JOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teleworking</td>
<td>Part-time</td>
<td>Skilled workers (professionals and managers)</td>
</tr>
<tr>
<td></td>
<td>At home 2-3 days a week, in office the rest</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Full-time</td>
<td>Data entry operatives, programmers, telephone</td>
</tr>
<tr>
<td></td>
<td>Perform nearly all of their work at home</td>
<td>order operatives</td>
</tr>
<tr>
<td>Mobile working</td>
<td>Spent most of their time on the road or at</td>
<td>Sales people, engineers and consultants</td>
</tr>
<tr>
<td></td>
<td>customers’ premises</td>
<td></td>
</tr>
<tr>
<td>Nomadic working</td>
<td>From home</td>
<td>Sales representatives, project co-ordinators,</td>
</tr>
<tr>
<td></td>
<td>Home used as a base from which to travel</td>
<td>researchers</td>
</tr>
<tr>
<td></td>
<td>From multiple bases</td>
<td>People who need a mixture of workstyles, often</td>
</tr>
<tr>
<td></td>
<td>A mixture of mobile working, teleworking and</td>
<td>executives</td>
</tr>
<tr>
<td></td>
<td>office working</td>
<td></td>
</tr>
</tbody>
</table>
BT’s workstyle typology defines three major styles of flexible working: teleworking, mobile working and nomadic working. Each of these three workstyles has different implications for the provision of learning opportunities, as will be discussed later in this paper.

**E-learning**

A recent report by KPMG Consulting opens thus: ‘In today’s climate of accelerating change, high performance depends critically on the pace with which intellectual capital is built, refreshed and leveraged. That is why leading organisations are placing increasing emphasis on continuous learning.’

Within that context of the agile, competitive organisation, and quoting data from IDC, the report states that: ‘Corporate e-learning is one of the fastest growing sectors within the corporate education market – since the late 1990s it has grown from a cottage industry to a market with a predicted global value of more than $US 23 billion by 2004.’

KPMG’s report cites good bottom-line reasons identified by respondents in its survey and interviews why organisations should be interested in e-learning.

- ‘Implementing an integrated e-learning solution can improve top-line revenues by up to 0.5 per cent.’

- ‘E-learning could save more than £7.5 million a year for the average FTSE-250 company. Compared with traditional classroom teaching, e-learning costs per head are reported to be up to 70 per cent lower, and this could rise to 80 per cent or even higher as the use of e-learning matures.’

But what is the e-learning that delivers these considerable benefits? KPMG defines it as ‘the use of technology in a networked environment to extend or enhance any part of the learning process’.

That emphasis on a networked environment is also found in the UK Chartered Institute of Personnel and Development’s definition of e-learning: ‘…learning that is delivered, enabled or mediated by electronic technology, for the explicit purpose of training in organisations. It does not include standalone technology-based training such as the use of CD-ROMs in isolation.’

**Pulling together or pulling apart?**

Both flexible working and e-learning are powerful changes to the way in which work and learning are organised and experienced. But would an organisation that has implemented flexible working find that e-learning somehow doesn’t fit? Or do flexible working and e-learning go hand in glove, complementing each other?
3. Proposition

This paper proposes that flexible working and e-learning are complementary approaches. They fit together. An organisation that implements flexible working will find that without e-learning, the benefits of flexible working will be muted. Flexible workers themselves will find that without e-learning many of their personal benefits from flexible working will be lost.

As the KPMG report showed, e-learning offers considerable benefits to office-based workers, flexible workers and their employers. The case for e-learning generally is a great one. The case made here, moreover, is that there are powerful additional reasons to implement e-learning if an organisation is also implementing flexible working.
Flexible working means that work that used to be office based is now undertaken in a variety of locations at a variety of times. What implications does that have for the learning opportunities of flexible workers?

**Teleworker**

A teleworker works at home rather than in an office, to a greater or lesser extent depending on whether they are part-time or full-time. Traditional classroom education clashes with that workstyle. Someone who is home-based for personal reasons, perhaps as a carer or because they live a long way from their work site, finds traditional classroom learning a problem. Travelling to a classroom can mean special arrangements for caring, and incurs travel time and possibly overnight stops – at a cost to their organisation.

The teleworker, therefore, needs learning opportunities that are provided where they work – at home. So, expressed in terms of their relationship with their employer, they need learning delivered at *my place*, not *your place*.

**Mobile and nomadic workers**

Neither does classroom learning fit the workstyle of a mobile or nomadic worker. To go to a classroom means being out of the loop for possibly days, and it’s precisely because these people need to maximise their time in the loop that they have their workstyles. They need solutions to fit their workstyle. This means learning that they can engage in any place: at home, in an office, at a touch-down facility, on a train or at a client’s premises – whenever they have time free. Simply put, mobile workers and nomads need learning delivered *any place*, not *your place*.

Mobile and nomadic workers have another requirement for learning delivery. Both workstyles make it hard to block out substantial periods of time for learning, especially when those periods are someone else’s schedule. (Anyone who is considering taking a course, whether flexible worker or not, knows that finding the right one that’s running when you are free can mean waiting months.) So mobile workers and nomads need learning delivered *any time*, not *your time*.

**Flexible workers need flexible learning**

Flexible working reflects a changing set of values about the control of work patterns. Traditional work patterns used to conform to a corporate template of fixed hours, in an office. Nowadays flexible work patterns suit the nature of the work and the needs of the individual worker.

Likewise, learning delivery used to fit a school-derived template of timetabled, lengthy courses that took place when and where it was convenient for the organisation. Today, learning needs to be available where and when the learner wants it.

The change in both cases is from an organisation-centred value to an individual-centred value. This is illustrated in Table 2. This not only summarises the requirements for learning delivery discussed earlier, but also shows that a concise way to summarise the learning delivery requirements of flexible workers is that they need flexible learning.
Table 2. Overcoming space and time – flexible workers need flexible learning

<table>
<thead>
<tr>
<th>VALUE</th>
<th>WORKSTYLE</th>
<th>WORK UNDERTAKEN AT</th>
<th>LEARNING DELIVERED AT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation-centred</td>
<td>Office worker</td>
<td>our place our time</td>
<td>our place our time</td>
</tr>
<tr>
<td>Individual-centred</td>
<td>Teleworker</td>
<td>my place</td>
<td>my place</td>
</tr>
<tr>
<td></td>
<td>Flexible working</td>
<td>any place</td>
<td>any place any time</td>
</tr>
<tr>
<td></td>
<td>Mobile or nomadic worker</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If the flexible worker needs flexible learning – that is, learning that is delivered my place or any place, and any time – is e-learning the way to provide that?

The answer is an emphatic yes. E-learning is not only, as we have seen, a cost-effective way to deliver learning to anyone in the organisation, it is also a flexible delivery mechanism.

Stephen Slater, marketing manager at BT has a unique perspective on this fit. Not only is he a flexible worker himself and is involved with BT's flexible working proposition, he was also one of the first graduates of the Open University's MA course in open and distance learning, which was delivered through e-learning. In Stephen's view, 'It is almost impossible to consider delivering learning to a flexible worker, without breaking their flexible working pattern, by any means other than e-learning.'

Table 3 reviews the individual learning tools against their abilities to deliver learning at flexible locations and at flexible times.
### Table 3. Common e-learning tools and delivery flexibility

<table>
<thead>
<tr>
<th>E-LEARNING TOOL</th>
<th>LOCATION FLEXIBILITY</th>
<th>TIME FLEXIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Web-based learning</strong>: Access through a web browser to learning material typically comprising text, graphics, animations and sometimes stored sound and video, which is structured into a pedagogic framework, often with quizzes and assessments</td>
<td>my place or any place</td>
<td>any time</td>
</tr>
<tr>
<td><strong>Simulation</strong>: Scenarios through which a learner works to solve problems. Depending on their decisions, a learner can take a number of paths encountering new material</td>
<td>my place or any place</td>
<td>any time</td>
</tr>
<tr>
<td><strong>Discussion forum</strong>: The group version of e-mail, whereby learners exchange messages with each other and often the tutor. Used for online seminars, group exercises, role plays, Q and A, and any other interaction among a group of learners and their tutor</td>
<td>my place or any place</td>
<td>flexible time – within a time window that suits the group of learners and tutor</td>
</tr>
<tr>
<td><strong>Chat</strong>: Learners exchange short text messages with each other and the tutor in real time. Often used because of its live, motivational aspects</td>
<td>my place or any place</td>
<td>flexible time – scheduled at agreed times to suit the group of learners and tutor</td>
</tr>
<tr>
<td><strong>Web cast</strong>: Live delivery of video or images through a web browser, often accompanied by an audio conference or chat session for tutor and learners</td>
<td>my place or any place</td>
<td>flexible time – scheduled at agreed times to suit the group of learners and tutor</td>
</tr>
<tr>
<td><strong>Audio conference</strong>: A group telephone call, used for a group of learners to hear instructions or debriefings from a tutor, or to discuss learning material they have encountered</td>
<td>my place or any place</td>
<td>flexible time – scheduled at agreed times to suit the group of learners and tutor</td>
</tr>
<tr>
<td><strong>Learning management system</strong>: Not a tool for the delivery of learning, but an online booking system plus a system that provides the organisation, and the learner, with a record of the learning they have undertaken</td>
<td>my place or any place</td>
<td>any time</td>
</tr>
</tbody>
</table>
**E-learning enables flexible learning**

It can be seen from Table 3 that all the common e-learning tools are location-flexible in that they can deliver learning to *my place/any place*, wherever the flexible learner is: at home, in an office, on the road or at a touch-down point.

Time flexibility shows a gradation. The tools that don’t support interaction between tutor and learners (web-based learning and simulations) make learning available *any time*. As the ‘liveness’ of the interaction increases, so it is less time-independent. However chat sessions, webcasts and audio conferences are more likely to be schedulable at a convenient time for a body of learners than a timetabled classroom course would be. So these interactive tools provide *flexible time*, if not any time, learning opportunities.

The conclusion is that e-learning delivers flexible learning. Rather than learning in a classroom (our place, our time), e-learning makes learning available at *my place/any place*, and at *any time* or *flexible time*. Flexible learning, enabled by e-learning, fits the needs of the flexible worker.

**E-learning piggybacks on flexible working**

Not only do e-learning and flexible working fit together conceptually and practically, they fit together in terms of the tools required. With the exception of learning management systems, the e-learning tools listed in Table 2 are learning-badged versions of tools used for collaborative flexible work*. Web-based learning employs browser technology and networks, as do web pages used for work. Discussion forums are used in both learning and work. Webcasts of lectures use the same technology as web conferencing for briefings and presentations. And chat and audio conferences are the same tools used for different ends.

As Stephen Slater of BT says, ‘The practical upshot is that having implemented these tools for flexible working, their learning application is not a fresh implementation, nor a new technology that users must get to grips with.’
6. Flexible learning in BT

BT occupies a position as a world leader in providing flexible learning to its flexible workers. Two programmes illustrate this.

**BT experience**

Simon Cavill was the architect of the BT eXperience programme, launched in January 2000 to equip a wide range of BT staff to understand internet provision. Simon says, ‘The sheer size of the audience was a major factor in how we were to address [this challenge]. We needed to help 20,000 people understand and engage with the e-world: not only the entire UK Markets (now UK Retail) sales and marketing force, but also their colleagues in support functions such as HR and Finance. And we had six months to do it.’ Simon had to cater for a range of flexible workstyles, ranging from office-based worker, through teleworker, to nomadic worker.

‘Going e’ was an early and fairly easy decision for Simon and his team. ‘An e-learning delivery solution was staring us in the face,’ says Simon, ‘because the BT intranet, with remote access, was there already, supporting people’s flexible work.’ Simon’s team developed a three-stage e-learning package, employing many of the tools described in Table 2 on page 9.

Stage 1, ‘The Knowledge’, was a web-based learning package about basic internet features, taking two to three hours to complete, incorporating quizzes and tests. It was developed to be used online, but it could also be downloaded from the BT intranet on a 56K modem, so it reached everyone, regardless of whether he or she was in a call centre, an office, at home or mobile.

This was a highly effective strategy: Lydia Holland of BT, then eXperience’s programme director, remembers that 18,000 people took Stage 1 within ten weeks.

Stage 2, ‘Understanding the e-Customer’, was focused on 10,000-plus customer-facing staff and was designed to build e-business understanding. It comprised three modules, each taking one to two hours to complete. Highly interactive, this web-based learning package used an automated coach who guided the learner through quizzes and tests.

Stage 3, ‘eXperience the Customer’, also for customer-facing staff, used simulated conversations with a range of BT customers covering domestic consumers, SMEs, major corporations and government. Household-name actors were simulated responding to the learner’s ‘sales call’.

The Stage 2 and 3 packages employed multi-media simulations that had to be completed online when connected to the BT intranet; they weren’t usable on a 56K home modem connection. Lydia Holland reflects, ‘In 2000 we were pushing the limits of connectivity and the capabilities of PCs to handle multi-media. Today, with broadband connections, and more capable computers, we can use multi-media to provide a pedagogically more effective learning experience through text, animation, video and sound.’

At the time, however, flexible workers such as sales people who needed the richer packages, were catered for by BT’s training departments, who organised road shows that attended, for example, sales team meetings. Attendees were led through the Stage 2 and 3 packages, then were guided to a pick-up point from which they could download the courseware into their laptop computers. This meant they could engage with the material anywhere.
Overall, eXperience led to £200 million incremental revenue for BT. It was rolled out in one year, rather than six years for an equivalent classroom training package, and cost 10 per cent of an equivalent package. A sales consultant could reach a level of internet awareness in one day that would have otherwise required three to five weeks’ training.

Simon Cavill is now working on new business opportunities for BT Retail including e-learning. ‘When we started, eXperience was a new model for e-learning,’ reflects Simon, ‘because it was motivated by an urgent business need to equip the BT workforce with new knowledge and skills. It was driven by BT’s need to be agile – to meet new customer and market needs. We are seeing increasing demand for these applications of “agile learning”: the ability to deliver targeted learning cost effectively but above all rapidly, across large numbers of people, geographically dispersed, who have a range of workstyles.’

**BT Academy**

CEO of BT Retail, Pierre Danon highlights the importance of e-learning to BT thus: ‘E-learning enables everyone within BT to access over 3000 online learning packages via the intranet and to improve their skill levels, no matter where they work. Moving to e-learning has saved 40 per cent of BT’s training budget.’

BT Academy is BT’s corporate university that incorporates 1000 classroom courses as well as the e-learning packages referred to by Pierre Danon. At its heart is the Academy Learning System, a Learning Management System (see above). This is available to 100,000 people, including flexible workers, through BT’s intranet, making it one of the largest such systems in Europe. It hosts a searchable catalogue of courses, from which anyone can select the learning opportunity they want.

Before booking, a learner usually seeks approval from their manager. However, as BT Academy’s Peter Kelly explains, ‘In one BT unit, people were concerned at the barrier caused by needing a manager’s approval. For this unit, we’re looking at removing the need for approval when a manager has already approved an earlier course in the series, and there are no extra costs to our licence.’

Then, Peter continues, ‘the learner can book onto a face-to-face course, or book onto an e-learning course. When they have taken the course, the Learning Management System maintains a record of what they have taken. There really is no difference between how an office-based worker or flexible worker is handled by the system – because everyone has access to the Academy Learning System we needn’t make any distinction.’

BT Academy’s e-learning courses cover an enormous range of topics, from materials handling to business leadership skills. The e-learning tools used range from standalone web-based learning through simulations to blended learning using discussion boards and webcasts with experts.

Even bandwidth-hungry multi-media courses are available to flexible workers, as Peter Kelly explains: ‘For office-based workers, our current trials with BT’s broadband intranet show we can easily serve multi-media courses for thousands of users at a time. Soon this will be available to home-based workers through ADSL. For the mobile worker, we have a download strategy, so that they can get the learning material into their laptop, and then engage with it any place, any
time. Currently, a compression tool called iOra is on trial to enable fast download, but in the future we see faster download will be an integral part of our Academy Learning System.’

Mick Taylor, head of products and systems training, BT Retail Major Business, explains more about the iOra compression tool: ‘Often a barrier to making multi-media e-learning accessible to flexible workers is that on a 56K modem, downloading takes time and costs money. With iOra’s compression, our flexible workers – mobile workers especially – can download speedily: approximately 40 minutes for a 13MB module compared to three to four hours. ‘With the module saved in their laptop, they can engage with the learning material when and where it suits them: at home, on the train, at a customer site or in a hotel room. Moreover, their progress is recorded, so they can stop and start when they want to without losing their place.’
7. Further flexibility

Time and space have virtually been overcome through e-learning tools, enabling flexible learning opportunities for any type of worker, flexible or not. But there are further developments in the pipeline.

**Learning objects**

Learning objects are small units of digitised learning material – mini courses – or what Robin Mason, professor of educational technology at the Open University, calls ‘bite-sized pieces of learning’. Mason explains that ‘As well as being “small”, perhaps taking only half to one or two hours to engage with, learning objects are specifically designed to be independent of each other and re-usable, and thus easily combined into a number of different learning experiences.’ They provide flexibility in two ways that extend the ‘learner-centred’ value illustrated in Table 2:

- First, smaller ‘chunks’ of learning are easier for the flexible worker – especially mobile worker or nomad – to digest in one session. And because they are self-contained, they are more easily taken up and put down, thus allowing the flexible learner to learn at their own pace

- Second, learning objects can be taken on their own or combined into courses that fit the needs of an individual learner.

Professor Mason elaborates: ‘Learning objects are becoming a popular idea because they are agile and flexible. They’re agile because they meet the demands of the learner (especially the corporate learner) to be given what they want to learn, and no less and no more. They are flexible because they can be combined and re-used to create a range of learning experiences. But they are not without controversy. In higher education, many educators reject the idea of a course as a collection of independent learning objects. But aggregating content in this way is an acceptable approach for competency-based or performance-based subjects where the emphasis is on what people need to know, not on what there is to be known.’

**Knowledge objects**

Mark Pittaway, BT Group e-learning strategist, foresees a similar flexible approach through knowledge objects that support performance for all types of worker, including the flexible worker. ‘Before going on-site, a field engineer can download a two-minute video clip into a hand-held device showing how to repair some equipment. Having done the repair, he or she can annotate the clip with their comments, and send it back to a knowledge store to be shared with other engineers. Is that a learning object, or is that work information? It’s really only semantics, but what’s happening is that the right person has the right knowledge at the right time.’

**Wireless LAN**

That field engineer will be better served by further developments that BT has in hand. Mark Pittaway explains: ‘BT Openzone’s wireless LAN links in public places such as coffee shops, hotels and railway stations, will allow mobile workers and nomads to download learning material, as well as their messages and other corporate information, and engage with them any place, any time.'
8. Summary

Flexible working and e-learning are a double whammy. On their own, both are mature and implementable strategies to reduce cost and improve effectiveness. Together they are complementary: e-learning underpins the flexible learning that flexible workers need to sustain their workstyles.

9. Further information

For more information, contact your BT Account Manager, phone us free on

0800 400 478

or find us at

www.bt.com/business
10. References

1 The definitions and descriptions in this table from BT’s ‘Working From Home pages’, at http://www.wfh.co.uk/wfh/consultancy/implementation/types.htm


4 Reference to Collaboration in the Wired World, A BT White Paper

5 How to Create an Agile Business by Pierre Danon, CEO BT Retail, April 2002 available from http://www.worklife.bt.com/PierreDanon.pdf
11. Author biography

Dr John Gundry is director and principal consultant for Knowledge Ability Ltd (www.knowab.co.uk/ka), a company that provides education and consulting to international clients in virtual work and teaming, flexible working and e-learning. John has been personally involved in all these topics since the early 1990’s, when he first worked with e-collaboration and virtual teams, was an early teleworker himself, and was research director for one of the world’s first virtual campuses.

John is also director and principal consultant Europe for Agility International Ltd (www.agility.co.uk/ai), a company that provides international consulting and education in agility and business agility.

John is co-author of *Agile Networking – Competing Through the Internet and Intranets* (Prentice-Hall PTR, 1998), a book that provides a strategic blueprint for adopting agility through networking tools and strategies such as e-collaboration and e-learning.

He is a graduate of the Western Behavioral Sciences (San Diego) Institute’s International Executive Forum, and a member of the Association for Learning Technology. He is a past Associate Editor of the journal *Interacting with Computers*. Recently, John co-founded the Virtual Teaming Association (www.virtualteaming.org).

He has a background in psychology, aerospace research, military and government systems design and organisation consulting, and has worked for very large organisations, and very small ones.
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