



# **Guide to Choosing & Using Free E-Learning Tools**

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Issue 1 (Free) - 4 February 2007

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# About this Guide

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This Guide is intended as an introductory resource for anyone venturing into the use of e-learning tools as well as for those who wish to expand their repertoire using free tools.

The Guide provides an introduction to the different opportunities for learning and performance improvement solutions that can be created with free tools; it provides examples of different solutions as well as links to relevant reading.

Here is a review from one satisfied reader:

*"I stumbled across your webpage last night and wanted to thank you for giving me back my enthusiasm and interest! I spent hours last night going through links on your webpage and found it extremely useful as a starting point to get more motivated again to try new areas for my work."*

Hopefully this site will give you some inspiration and new ideas for your work too!

## Version Note

Version 1 provides the bare bones structure of the materials in this Guide. Updates will be made constantly to the pages to expand them significantly with more detail, more links, more examples and activities to use the free tools to create Version 2. Updates to the pages appear in the [What's New](#) service at the website.

## Distribution of this Guide

This Guide can be freely distributed provided you don't charge any money for it, I am given due credit as the author and all copyright information is retained.

**Jane Hart**  
**February 2007**

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# 1 Introduction to e-Learning

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e-Learning is generally defined as the use of learning and communications technologies to develop, deliver and support learning in all its forms. [See the [Wikipedia definition of e-learning](#)]

The early years of online learning or e-learning, as it came to be termed in 2000, focused on delivering formal courses and programmes (both in education and in training) via the Web. Consequently, nowadays, the term "e-learning" is practically synonymous with "online courses" and "learning management systems".

But to define e-learning so narrowly in this way is to miss the big opportunity that it has to play in an organisation. e-Learning is not just about developing online courses but also about enabling informal learning, performance support and knowledge management in the organisation.

We are also seeing a true revolution in the types of Web tools and systems that are emerging. These tools are often termed Web 2.0 tools, and for their use in supporting learning they are sometimes also referred to as Learning 2.0 technologies and within organisations as Enterprise 2.0 technologies

This "new" approach to e-learning, which is based on open source and free tools and technologies, also means that e-learning is now affordable and achievable by even the smallest of organisations - and the opportunities for supporting learning is boundless as we shall see below.

## Formal v Informal Learning

Formal learning is structured, instructional learning in the form of courses, programmes, workshops, seminars, etc (whether classroom-based or online).

Informal learning is pretty much everything else - on-the-job mentoring, presentations, conferences, conversations with colleagues - in fact anything where you learn or find out about something, anywhere or anyhow.

I, however, sub-divide both the Formal and Informal Learning categories even further to make some finer distinctions between the types of learning and performance solutions that can be created - as shown in the table below.

Learning & Performance Solutions			
Formal Learning		Informal Learning	
Formal Education	Formal Training	Informal Training	Informal Education
College/university courses/programmes and CPD	Organisational training courses	Job-embedded learning for performance support and improvement	General information, awareness raising

As we can see there are tools, not just for creating formal educational or training events, but also for creating solutions to improve performance as well as for general awareness raising - and consequently they are of strategic value to an organisation.

Informal Learning is also about embedding solutions into job and work processes. In other words, if you are doing a task and have a problem, you can immediately access the answer to your problem, and then complete the task - they are available **on demand, at the point of need**, rather than the "old", formal learning approach, which is to take a course (online or in the classroom) where you learn everything you need to know, and then go back to your job and have to remember how to apply it. In fact as Jay Cross and Tony Driscoll, in *Workflow learning gets real*, pointed out in March 2005.

*"The half-life of newly learned material is three days; if learners don't use it immediately, they lose it."*

It is important to recognise the importance of informal learning solutions within an organisation. It has now been accepted that at least 80% of all learning needs are informal and only 20% are formal. However, in reality most organisations spend 80% if not more on their formal training needs and very little, if any, on their informal learning needs. The following resource talks more about this 80-20 rule:

- [Informal Learning - the other 80%](#), Jay Cross, Internet Time, 8 May 2003

## Rapid e-learning

Additionally, and in particular with performance problems, there is often a need to create solutions quickly, easily and cheaply in-house with minimal skills. Hence we have seen the rise of the term - **rapid e-learning development** - and the majority of the resources described in this Guide and the tools in this Directory support a rapid creation process.

## Content v Collaboration

One of the other significant factors about e-learning nowadays is the realisation that learning is as much about **sharing information and knowledge** with others as acquiring it through expert-generated content. Content costs a lot to produce, is often not reusable and can quickly go out of date, whilst the systems that support the sharing of information and knowledge between workers can be relatively inexpensive and be used across many functions and for many different purposes. The whole concept of **user-generated content** is also one that is beginning to take off in the corporate learning world.

Even in formal learning, **collaboration** is a key aspect, where groups of people work together with or without an instructor. Many of the tools listed in this Guide and Directory support a collaborative approach to learning, whether it be working together to create a common document, file and other resource sharing or discussions or live chat. We have also seen the term **social software** to describe the new Web 2.0 tools that support sharing and collaboration.

## Other trends

Other trends that are important in the technology-enabled learning world include the following:

**Push learning:** This is where learning is pushed down to the learner or worker (generally formal learning) rather than them getting it for themselves (ie pull learning, usually associated with informal learning approaches). See [Push and Pull](#) from Jay Cross, 22 January 2006.

**Personalised learning:** We are also seeing a move to learners becoming much more responsible for their own learning (e.g. for finding it for themselves) as well as for learning being tailored for them. Personal learning also covers things like ensuring that the learning or performance solution is available/delivered at the right time at the right place to the right device, whether it be a PC, PDA, iPod or mobile phone.

**Blended learning:** This is a term that is pretty much mis-used. Although it originally meant creating a learning solution that included both traditional, face-to-face elements as well as online elements, it now refers to offering learning and performance solutions using different media and formats in such a way as to create the most appropriate solution for the learners and the problem that is being addressed. This might include acquiring other, ready-made, content as part of a blended solution. The [Examples of Free E-Learning Content](#) offer some suggestions of types of content that can be acquired for free.

**Live learning:** This involves learning at the same time with others and a tutor, probably where a tutor is leading a scheduled learning session. Live learning is a response to the early forms of formal learning that provided **self-paced learning** solutions, which often meant learners studied alone and often dropped out of formal online courses.

**Managing learning:** Having a Course or Learning management system (LMS) or Virtual Learning Environment (VLE) has almost become *de rigueur* if you wanted to be seen to be serious about e-learning in an educational or corporate setting. However, there has been much discussion not only about the cost of

the systems, but the value that they add to an organisation and also whether they are appropriate for "managing informal learning approaches".

## Creating successful e-learning - the right solution for the right job

It is hoped that this Guide will help you identify the most appropriate learning or performance solution for any given problem to create **sustainable e-learning**.

## Getting started

This Guide does not assume you have any tools in place to start building technology-enabled learning or performance solutions. However, if you do have MS Office (Word, PowerPoint, etc) then you have a head start. If you don't then **1 Textual Documents** or **9 Presentations** pages are the place to start as they will suggest other free alternatives.

## More reading

### Learning 2.0/Enterprise 2.0

- **e-Learning 2.0 - how Web technologies are shaping education** Steve O'Hear and Richard McManus, 8 August 2006
- **Web's second phase puts user in control** Steve O'Hear, The Guardian, 20 June 2006
- **Web 2.0 meets the enterprise** Howard Greenstein, Optimize, May 2006
- **Enterprise 2.0: The Dawn of emergent collaboration** Andrew P McAfee, MIT Sloan Management Review, Spring 2006
- **Web 2.0: A new wave of innovation for teaching and learning?** Bryan Alexander, Educause Review, Vol 41, No 2 (March/April 2006)
- **Beyond E-Learning** Marc J Rosenberg, ASTD Store
- **What lies beyond e-learning?** Marc Rosenberg, Learning Circuits, March 2006
- **Seconds out, round two**, Stephen O'Hear, The Guardian, 15 November 2005
- **E-Learning 2.0** Stephen Downes, eLearn Magazine, October 2005
- **What is Web 2.0** Tim O'Reilly, 30 September 2005

### Informal learning

- **What is informal learning** - by Jay Cross, Internet Time Group.
- **13 ways of managing informal learning**, Mark Harrison, kineo, January 2006
- **Informal learning - the other 80%**, Jay Cross, Internet Time Group, 8 May 2003.
- **Learning without lessons: supporting learning in small businesses** Lisa Doyle and Maria Hughes, Learning & Skills Development Agency, 2004 [PDF]
- **Job Aid or Training?** Susan Wilson, San Diego State University

### Formal learning

- **Choose the delivery method for your e-learning course**, information on college university articles, 20 December 2006

### Rapid e-learning

- **White paper** [PDF]
- **Rapid E-learning: A growing trend**, Dianne Archibald, Learning Circuits Magazine, January 2005
- **Speed is king: Rapid creation and deployment of enterprise e-learning solutions**, Macromedia, 2004 [PDF]

## Blended learning

- [Wikipedia definition of blended learning](#)
- [What works in blended learning?](#) Josh Bersin, Learning Circuits, July 2003
- [Building a successful blended learning strategy](#)  
Michael McGinnis, L&TI Newsline, 23 June 2005

## Collaborative learning

- [Wikipedia definition of collaboration?](#)
- [Wikipedia definition of collaborative learning](#)
- [Social software: E-Learning beyond learning management systems](#), Christian Dalsgaard, European Journal of Open, Distance and E-Learning, 12 July 2006
- [IT Managers Guide to Social Computing](#) David Tebbutt, The Register, 21 July 2006

## Sustainable e-learning

- [Delivering what students say they want online: towards academic participation in the enfranchisement of e-learners?](#), Richard Hall, EJEL, Vol 4, Issue 1, March 2006



## 2 How to choose the right tool

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The key to creating a successful technology-enabled solution is using the right tool for the job. The following article is "a tongue-in-cheek take on training and e-learning topics and why they often go wrong" - but there's an awful lot of truth in it!

- **Outfitting education: Making learning in fashion**, Eve Drinis and Amy Corrigan, Chief Learning Officer Magazine, January 2004

So where do you start? This is the 3 step process.

**Step 1: Decide which type of learning or performance solution you are going to create.**

In **1 Introduction to e-Learning** we charted the main solutions like this

Learning & Performance Solutions			
Formal Learning		Informal Learning	
Formal Education	Formal Training	Informal Training	Informal Education
College/university courses/programmes and CPD	Organisational training courses	Job-embedded learning for performance support and improvement	General information, awareness raising

If you are in a college or university and creating an online programme, then it is quite easy - you are going to take the **Formal Education** route.

If you are an external provider of training course, then you will probably want to take the **Formal Training** route.

If you are an organisation that just wants to keep your people (clients, customers and others) up-to-date with what you are doing or what is happening, then the **Informal Education** route is probably the way to go.

If you are an organisation considering workplace learning, then you have three choices: a formal training course, some informal training, i.e. job embedded learning or performance support solution, or even a simple informational solution. But which is it to be? Well the most appropriate type of solution will depend upon a number of factors, first the **problem** itself that needs to be addressed.

The problem might be easily identifiable, for example,

- *"we have a new product and we need to make sure all the sales force understands it and can talk intelligently about it to our customers"*
- *"we need to make sure our people comply with health and safety regulations"*
- *"we need to get John up to speed very quickly on using Java so that he can write programs in it straightaway".*

On the other hand, the problem might not be so clearly identifiable and manifest itself as, say,

- *poor sales figures*
- *poor staff retention*
- *poor productivity*

In which case you need to understand why the problem is occurring, for instance

- poor sales figures might be because sales *staff are just not keeping up to date with all the products they have to deal with*
- poor staff retention because the staff feel they are *not being supported enough in their jobs with knowledge and skills to do their jobs properly*, and
- poor productivity because the staff *don't know how to use computer applications or carry out tasks efficiently*.

Whatever the problem, you will need to think very carefully about what the solution might look like, e.g. a formal training solution where all the participants have to work through a whole body of knowledge and skills, or a solution where they can find what they need to know in order to undertake a task (just in time) or just generally keeping the people up to date with what is going on in the organisation.

The likely types of solutions to the problems mentioned above might be:

Problem	Likely type of solution
a <i>"we have a new product and we need to make sure all the sales force understands it and can talk intelligently about it to our customers"</i>	Ensuring that the sales force are kept up to date with the development of the project, that they understand its feature set and can ask questions BEFORE the product is launched, so they are ready to go, when the product is launched. That is, an <b>Informal Education</b> solution
b <i>"we need to make sure our people comply with health and safety regulations"</i>	This may require individuals taking some sort of test to see if they understand H&S regulations, and if they fail it, recommending they work through a short course or tutorial before they re-take the test, so a light weight <b>Formal Training</b> solution
c <i>"we need to get John up to speed very quickly on using Java so that he can write programs in it straightaway"</i>	This sounds like John needs to acquire a whole body of knowledge about what Java is as well as new skillset on how to write Java programs, i.e. a heavy weight <b>Formal Training</b> solution is required here.
d <i>"poor sales figures" due to "staff just not keeping up to date with all the products they have to deal with"</i>	This will need a mix of general awareness about products and changes in products, i.e. an <b>Informal Education</b> solution as well as some reference guides, quick guides on product functionality to remind them of key features etc, and/or access to others to discuss work related issues, i.e. an <b>Informal Training</b> solution
e <i>"poor staff retention" due to "not being supported enough in their jobs with knowledge and skills to do their jobs properly"</i>	This requires ensuring there are more performance support resources available for the staff, e.g. job aids, reference guides, etc and they can communicate with others to discuss work-related issues - i.e. <b>Informal Training</b> solutions.
f <i>"poor productivity" due to "not knowing how to use computer applications or carry out tasks efficiently"</i>	This needs a solution to help users improve their productivity, could be content like job aids or access to help desk, so either. an <b>Informal Training</b> solution or an <b>Informal Education</b> solution or both.

Note, that just in the few problems we have identified here, the majority require Informal Learning solutions not Formal Learning solutions (and this will probably be the case in most organisation, see the 80/20 rule we discussed in **1 Introduction to e-Learning**. So if you do identify the solution as a Formal Training solution, you should question your reasoning carefully.

## Step 2: Decide what type of "resource" you are going to provide

Once you have decided on the "high level" solution to be created, the next step is to consider the "lower level" solution, that is what the actual type of resource is going to be created. Will it be a **content** solution or a **people** solution?

Some of the factors that will influence this will be

- how **quickly** the solution is required - if it is urgent, then you haven't got the luxury of developing over months, so it will have to be something you can create very rapidly,
- what the **budget** is to create the solution - does it have to be done on a shoestring or is there a large amount of money to create a solution, this will influence what you can achieve
- what the **shelf-life** of the solution will be - will it be out of date in a few weeks, or months or years. If the former then there will no point on spending a lot of time and money creating something that will be out of date very quickly. Quick and dirty may well be the answer.

As a rule of thumb:

- **Formal** content based solutions (which have been instructionally designed and produced with high levels of interactivity and sophisticated multimedia) will take longer to produce and cost much more than **Informal** content based solutions,.
- **Expert content** based solutions take longer and cost more to create than **user-generated** solutions (i.e. encouraging people to communicate and collaborate with one another to produce common documents ) .

But there are also a number of other factors to consider:

- the **learners** involved - the number of people that need the solution, their location, their profiles (age, type of work they are doing), their motivation and their learning preferences (self-managed or supported)
- their **line managers** and how they would like their people to learn or have their performance supported and how they will see the solution as being successful.

By understanding these factors you can then design a solution that will fit with the way learners work and thereby ensure a) they are used and (b) that they are successful. In other words you won't have to force or bribe individuals into e-learning because it will be an intuitive process for them (but remember that will only happen if you consider e-learning to encompass a very wide range of learning and performance solutions, if you think e-learning = only online courses then you will have a hard job of selling it to some, many if not all users.

Finally, you will need to consider whether the solution should be created in-house by L&D professionals and/or domain experts, or whether the production will have to be outsourced, or indeed whether there is some solution that could be acquired off-the-shelf (for free or otherwise). The trend nowadays appears to be to outsource the creation of complex, sophisticated content-based **Formal Training** solutions like interactive courses or simulations and internally produce less complex **Formal Training** solutions as well as the full range of **Informal Learning** solutions.

Here are some of types of resources that could be produced for the examples listed above.

Problem		Likely type of solution	Possible resource(s)
a	"we have a new product and we need to make sure all the sales force understands it and can talk intelligently about it to our customers"	Ensuring that the sales force are kept up to date with the development of the project, that they understand its feature set and can ask questions BEFORE the product is launched, so they are ready to go, when the product is launched. That is, an <b>Informal Education</b> solution	Product <b>blogs</b> on development of products to be written by R&D with opportunity for sales to ask questions and access resources.

Problem		Likely type of solution	Possible resource(s)
B	<i>"we need to make sure our people comply with health and safety regulations"</i>	This may require individuals taking some sort of test to see if they understand H&S regulations, and if they fail it, recommending they work through a short course or tutorial before they re-take the test, so a light weight <b>Formal Training solution</b>	An <b>online test</b> where score is recorded and if required referred to web-based course (produced internally or outsourced) or acquired off-the-shelf
c	<i>"we need to get John up to speed very quickly on using Java so that he can write programs in it straightaway"</i>	This sounds like John needs to acquire a whole body of knowledge about what Java is as well as new skillset on how to write Java programs, i.e. a heavy weight <b>Formal Training solution</b> is required here.	A formal <b>training programme</b> - online or classroom based. If for one user then acquired from external supplier (free or at cost)
d	<i>"poor sales figures" due to "staff just not keeping up to date with all the products they have to deal with"</i>	This will need a mix of general awareness about products and changes in products, i.e. an <b>Informal Education</b> solution as well as some reference guides, quick guides on product functionality to remind them of key features etc, and/or access to others to discuss work related issues, i.e. an <b>Informal Training</b> solution	A variety of relevant expert generated job aids <b>PDFs</b> , <b>web pages</b> , <b>screencasts</b> and <b>presentations</b> , and user-generated content ( <b>blogs</b> and <b>wikis</b> ) as well as . Access to people via <b>instant messaging</b> e.g. help desk, and tools for <b>sharing of files and other resources</b> . Also a range of personal tools to support their own productivity ( <b>RSS readers</b> , <b>start pages</b> , etc)
e	<i>"poor staff retention" due to "not being supported enough in their jobs with knowledge and skills to do their jobs properly"</i>	This requires ensuring there are more performance support resources available for the staff, e.g. job aids, reference guides, etc and they can communicate with others to discuss work-related issues - i.e. <b>Informal Training</b> solutions.	
f	<i>"poor productivity" due to "not knowing how to use computer applications or carry out tasks efficiently"</i>	This needs a solution to help users improve their productivity, could be content like job aids or access to help desk, so either. an <b>Informal Training</b> solution or an <b>Informal Education</b> solution or both.	

### Step 3: Decide which tool you are going to use.

Once you have decided on the resource type - content or people - and even the actual type of tool you are going to need to create the resource, then it is time to look at the range of tools available.

In this Guide we highlight some of the key free tools that are available to produce the resources specified, but you would be well advised to take a look at the range of tools available (from the listings in the Directory) to ensure that the functionality of the actual tool you select meets your needs.

### 3 Overview of solutions

This page provides an overview of the learning and performance improvement solutions that can be created using free tools.

- In the **RESOURCES** column is the relevant section in this Guide to Choosing & Using Free E-Learning Tools for more details and examples.
- The link in the **TOOLS** column will take you to the relevant listing in the [Directory of Free E-Learning Tools](#).

RESOURCES	TOOLS	FORMAL LEARNING		INFORMAL LEARNING	
		Formal Education College/university courses/programmes	Formal Training Organisational training courses	Informal Training Job-embedded learning, performance support	Informal Education General information, awareness raising
Documentation					
4 Textual Documents	Word processing / spreadsheet tools	Supporting course resources, e.g. lecture notes	Supporting course materials, e.g. training notes	Information sheets, job aids, reference sheets, etc	General informational resources in textual format
5 PDFs and E-Books	PDF tools	Lecture notes and slides, study guides, e-textbooks, course readers	Training notes and slides and training guides	Job aids (docs or presentations), e-books on job-specific topics	General information resources and e-books
	E-Book tools				
Web pages, blogs and wikis					
6 Web Pages	Web page tools	Course portal and web pages with links to online learning resources	Training portal and web pages with links to online resources	Job-specific, web-based job aids	General informational web portals and pages
	Widgets and accessories				
7 Blogs (and RSS)	RSS Feed tools	Course, teacher, student and group blogs	Course, instructor, learner and group blogs	Project, department and topic blogs	Individual and organisational blog
	Blogging tools				
8 Wikis	Wiki tools	For collaborative learning and co-creation of coursework	For collaborative learning and co-creation of training resources	Work on collaborative team projects, e.g. co-creation of project resources	Personal use of wikis as note pads or to create web pages

RESOURCES	TOOLS	FORMAL LEARNING		INFORMAL LEARNING	
		Formal Education College/university courses/programmes	Formal Training Organisational training courses	Informal Training Job-embedded learning, performance support	Informal Education General information, awareness raising
Presentations and Tutorials					
9 Presentations	Presentation tools	Lecture presentations (slides with/without voiceover)	Training presentations (slides with/without voiceover)	Short presentations on job-related topics (with/without voiceovers)	Presentations on general topics with/without voiceovers
10 Podcasts	Podcasting tools	Coursecasts (i.e. audio/video lectures)	Coursecasts (i.e. audio/video training sessions)	Project/topic podcasts	Company, individual and subject podcasts
	Media creation tools				
11 Courseware & Tutorials	Lesson authoring tools	Courses and tutorials	Courses and tutorials	Short tutorials on job-related topics	Existing courses and tutorials to dip in and out of
12 Screencasts	Screen capture/ screencasting tools	Software/ application demonstrations	Application/ system demonstrations	Applications/task demonstrations	General demonstrations
13 Screen sharing	Screen/desktop sharing tools	Two users working together, e.g. viewing a lecture presentation	Two users working together, e.g. viewing a training presentation	Task support for a user (2 users)	General IT support for a user (2 users)
14 Web Conferencing	Web conferencing tools	Scheduled lectures with a group of remote participants	Scheduled training sessions with a group of remote participants	Scheduled team/ project meetings with a group of remote participants	Scheduled meetings with a group of remote participants
Interactivity					
15 Tests and Quizzes	Testing tools	Course-specific assessment	Training-specific assessment	Self-assessment of job-related topics, serious games	Self-assessment of general topics. learning games
16 Collecting user input	Forms, polling and survey tools	Interactive workbook, essay submission, student feedback	Interactive workbook, learner feedback	Job-related questionnaires and polls	General questionnaires and polls
17 Games & virtual worlds	Games and virtual world tools	Games-based learning, Avatar-based virtual world education	Serious games Virtual world training	Serious games, Immersive worlds	Games, Immersive worlds



RESOURCES	TOOLS	FORMAL LEARNING		INFORMAL LEARNING	
		Formal Education College/university courses/programmes	Formal Training Organisational training courses	Informal Training Job-embedded learning, performance support	Informal Education General information, awareness raising
Communication					
18 Learning by Email and SMS	E-Mail and SMS tools	Communication with teachers/peers, courses delivered by e-mail or SMS	Communication with trainers/ colleagues, training delivered by e-mail or SMS	Communication tool, job-specific learning delivered by e-mail or SMS	Communication tool, general learning delivered by e-mail or SMS
19 Discussion Forums	Discussion forum tools	Asynchronous course-specific discussions	Asynchronous training-specific discussions	Asynchronous project/job- specific discussions	Asynchronous general discussions
20 Chat rooms	Chat room tools	Real-time course- specific chats, course support	Real-time course-specific chats, help desk	Real-time project/job- specific chats, help desk	Real-time general chats, help desk
21 Instant Messaging & Voice Chat	Instant messaging and voice chat tools	1 to 1 and small groups for course- specific live chat and application sharing	1 to 1 and small groups for training- specific chat and application sharing	1 to 1 and small groups for job- specific tasks and application support	1 to 1 and small groups for general conversations and help desk
Sharing					
22 Sharing bookmarks	Social bookmarking tools	Store, tag and share course-related bookmarks	Store, tag and share training- related bookmarks	Store, tag and share project/job bookmarks	Store, tag and share personal bookmarks
22 Sharing resources	Storing and sharing files	Teachers share with students, and students share with peers, all kinds of course resources: notes, files, calendars, etc	Trainers share with learners, and learners share with colleagues, all kinds of training resources: notes, files, calendars, etc	Colleagues share project/job files and other resources	General and private sharing of professional and personal resources and notes
	Sharable calendars, etc				
	Note taking and sharing tools				
23 Group spaces	Group and project tools	Store and share class or small group resources and to communicate with other learners	Store and share training or small group resources and to communicate with one another	Store and share project or team resources and to communicate with project and team members	Store and share personal resources and communicate with others in group, eg family and friends

RESOURCES	TOOLS	FORMAL LEARNING		INFORMAL LEARNING	
		Formal Education College/university courses/programmes	Formal Training Organisational training courses	Informal Training Job-embedded learning, performance support	Informal Education General information, awareness raising
Course, Content and Community Management					
25 Managing courses and learners	Course/Learning management tools	Manage course resources and student learning	Manage training resources and employee learning	Not generally used to manage informal learning although the use of some informal training materials may be managed	Not generally used to manage informal learning, however, if a course is accessed for personal learning this might be managed
26 Managing content	Content management tools	Manage creation of collaborative course- related content	Manage creation of collaborative training-related content	Manage creation of collaborative project content	Manage creation of collaborative general content
27 Managing communities	Social networking/ community tools	Build a learning community for a course	Build a learning community for a training event	Provide social aspects of working for remote project participants	Social networking with others for personal or professional reasons



RESOURCES	TOOLS	FORMAL LEARNING		INFORMAL LEARNING	
		Formal Education College/university courses/programmes	Formal Training Organisational training courses	Informal Training Job-embedded learning, performance support	Informal Education General information, awareness raising
Personal Productivity					
28 Accessing web content	Browsers and extensions	To access academic web-based content in different formats	To access training web- based content in different formats	To access project/team web-based content in different formats	To access personal and professional web-based content in different formats
29 Receiving new content automatically	RSS/news readers and alerts	To subscribe to and be alerted to new course content in feeds including podcasts	To subscribe to and be alerted to new training content in feeds including podcasts	To subscribe to and be alerted to job-specific content in feeds including podcasts	To subscribe to and be alerted to new professional and personal content in feeds including podcasts
30 Aggregating content on the desktop	Start pages	To create a personal start page with access to all course content, resources, feeds, etc	To create a personal start page with access to all training content, resources, feeds, etc	To create a personal start page with access to all job- related content, resources, feeds, etc	To create a personal start web page with access to all professional and/or personal content, resources feeds, etc
31 Being productive	Personal productivity tools	To use a computer and the web more productively for formal education purposes	To use a computer and the web more productively for formal training purposes	To use a computer and the web more productively for job and performance improvement purposes	To use a computer and the web more productively for informal learning purposes
32 Using a mobile device	Mobile phone/iPod/ PDA tools	Use mobile devices for formal learning purposes	Use mobile devices for formal training purposes	Use mobile devices for job- performance improvement purposes	Use mobile devices for personal purp

## 4 Textual Documents

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Word processing tools can be used to create a variety of learning materials - from supporting resources for formal courses to informational learning materials, as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
Supporting course resources, e.g. lecture notes	Supporting course materials, e.g. training notes	Information sheets, job aids, reference sheets, etc	General informational resources in textual format
<b>Propositional Calculus Lecture Notes</b> National University of Singapore	<b>Boeing 737-300/400 Training Notes</b> Boeing 737 Technical Site	<b>Critical Infrastructure Protection Process Job Aid</b> US Fire Administration	<b>Press Release</b> International DanceSport Federation

### Word

Microsoft Word is probably the most popular word processing software - but it's not free, so you need the software to both create and read/annotate text files, although there is a **free Word viewer** to view, print and copy Word files only. Also if you do have Word on your computer then you can create and publish documents in the native format (i.e. .DOC), convert them into PDF format (see **5 PDFs and E-Books**) using appropriate tools or even convert them into web format, i.e. .HTML (see **.6 Web pages**).

### Other ways of creating textual documents

However, if you don't have Word on your computer there are other free alternatives.

1. You can download word processing software for your computer
2. You can use web-based document tools

Let's take a look at these two options

1. Probably the most well known of the downloadable tools is **Open Office Writer**, as it is open source software. It also have the added advantage of converting documents into PDF format. Its look and feel is very similar to Word but if you would like some help in using it, here are two resources
  - o **Open Office documentation** for comprehensive guides, how-tos and tutorials
  - o **OpenOffice Lessons**
2. Web-based versions of word processing software, however, have the advantage that they (mostly) support collaborative writing, i.e. more than one person can work on the production of the content. Examples include **Google Docs and Spreadsheets** (previously known as Writely), and **Zoho Writer**, which is part of the Zoho Virtual Collaboration suite. Remember that the document that is produced will not be a Word-type document, but a web-based document. Web-based, collaborative writing tools are a form of wiki (see **8 Wikis**) - and wikis don't necessarily have to be used for collaborative writing, they can be set up as personal writing tools.

### More free word processing tools

- **Directory of Free E-Learning Toos: Word processing and spreadsheet tools**

### More reading

- **Web Office Suites Blurring Lines with Collaborative Technologies**, Larry Cannell, Collaboration Loop, 9 January 2007
- **Word and accessibility**, NCDAE, February 2006
- **Job Aid or Training?** Susan Wilson, San Diego State University

## 5 PDFs and E-Books

PDF tools can be used to convert a variety of textual and presentational materials into the portable document format. Learning resources that could be produced in this format could be as in the table below.

Formal education	Formal training	Informal training	Informal education
Supporting resources, e.g. lecture notes and presentation slides	Supporting course materials, e.g. training notes,	Job aids, reference sheets, presentation slides	General informational resources
<b>Propositional Calculus Lecture Notes</b> National University of Singapore  <b>Practical Aspects of Modern Cryptography</b> University of Washington	<b>Library Training Notes</b> University of Macquarie  <b>Training on Catheter Urinary Tract Infection Surveillance</b> Health Protection Scotland	<b>Shoreline Assessment Job Aid</b> NOAA'S National Ocean Service	<b>RMS Company Brochure</b> Risk Management Solutions
Study guides	Training guides		
<b>Study in Europe Study Guide</b> Kings College London	<b>Field Managers Course Guide</b> National Wildfire Coordinating Group		
E-Textbooks, course readers	E-Training guides	E-Books on job-specific topics	General e-books
<b>Multivariate Analysis of Ecological Data Textbook</b> University of South Bohemia [Adobe PDF]	<b>Hazardous Materials Transportation Training Modules Student Guide</b> PHMSA [Adobe PDF]	<b>Microsoft Word 10 minute guide</b> Informit [Adobe PDF]	<b>1001 Best Things ever said about work</b> Free eBooks.net

### What is PDF?

PDF stands for Portable Document Format - an open file format created and controlled by Adobe. For more information about the Portable Document format, see [Wikipedia](#).

Some of the advantages of PDFs are:

- Smaller file size than original native documents (e.g. Word, PowerPoint)
- Cross-platform compatibility (ie can be read on both PCs and Macs)
  - Can contain hyperlinks to web resources



Documents made available as PDFs are often marked by the PDF icon. (as shown on the left)

### Reading PDFs

To read a PDF you will need a special reader, the most common of which is the [Adobe Reader](#), which is free although there are now other free readers like the [Foxit reader](#).

### Converting to PDF

You will need a tool to convert the document or presentation (usually from Word or PowerPoint) into a PDF. Although Adobe Acrobat is the most well known, it is a commercial tool, there are free tools to do this. These can either be downloaded like [Cute PDF Writer](#), or are web-based like [PDF Online](#) or [gOFFICE](#). Also don't forget that [Open Office](#) lets you convert documents into PDF.

Both short and long documents can be easily converted into the PDF format; longer PDF documents however are often referred to as e-books.

## What are e-books?

An e-book is a digital equivalent of a printed book. More information about e-books can be found in [Wikipedia](#).

E-books are particularly popular in formal education as they offer a more economical way of creating and delivering course readers. The following article is particularly useful for understanding how e-books can be used in education..

- [7 things you should know about e-books](#) Educause, 2006

## Reading an e-book

There are a number of different formats for ebooks and therefore it depends which format you are using, which reader you require. Probably the two most widely used formats are the Adobe PDF format and Microsoft reader format.

On PCs, to read e-books using the Adobe PDF format, the free [Adobe Reader](#) is required. To read e-books using the Microsoft reader format, the [Read in Microsoft Reader](#) is required.

For mobile devices (pocket PCs, Palms, etc) there are appropriate [Adobe Readers for mobile devices](#) and Microsoft readers are available for [Tablet](#) and [Pocket PCs](#)

## Creating an e-book

Once again it depends which e-book format you want to use, which tool you need to use to create it.

For the Adobe format, the free tools described above (under PDF) are possible - although they do not have the full functionality for creating a sophisticated e-book.

For the Microsoft reader format, the [Read in Microsoft reader](#) is freely available to create e-books from Word 2002 or 2003

## More free tools

- [Directory of Free E-Learning Tools: PDF tools](#)
- [Directory of Free E-Learning Tools: E-Book tools](#)

## More reading

- [Job Aid or Training?](#) Susan Wilson, San Diego State University
- [Digitizing education: a primer on e-books](#) Michael A Looney and Mark Sheehan, Educause [PDF], 2001
- [E-Books: Why they matter for distance education - and how they could get much better](#), David Rothman, innovate, August/September 2006, Vol 2, Issue 6

## 6 Web pages

Web page tools can be used to create a variety of formal and informal learning materials as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Course portal or website		Job-specific, web-based job aids	General informational web portals and web pages
<b>SUPPREM Course Portal</b> University of Geneva	<b>caBIG Training Portal</b> National Cancer Institute	<b>Administrative Job Aids</b> US Fish & Wildlife Service	<b>Reference.com</b> Lexico Publishing Group  <b>How Stuff Works</b> HSW Media Network
Course portal and web pages with links to online learning resources	Training portal and web pages with links to online resources		
<b>Plant Biology Lecture Notes</b> University of Maryland	<b>Training Notes</b> Commission for Racial Equality		

### Why web pages?

For many people creating web pages is synonymous with online learning - and in fact in the early days of e-learning that's what most people did - just convert their paper-based resources into web pages.

Nowadays you don't have to know how to create web pages to produce learning content - there are lots of other ways of producing online resources as can be seen in this Guide. In fact because setting up a website and creating web pages does require some effort, blogging (see **7 Blogs (and RSS)**) has now replaced website creation by many individuals as it is the quickest way of getting a web presence.

However, this page looks at the tools that could be used if you do want to create a course website or portal or produce specific web pages.

### Creating web pages

Note that both Word and PowerPoint have functionality to convert documents and presentations into web based versions (using Save File As Web page), there are of course many other free tools for creating web sites and web pages. These are either

- downloadable web page tools like **1st Page 2000**
- web-based web page tools like **Google Page Creator**
- web-based word processing tools like those described in **4 Textual documents**.

The tools above do not require an understanding of HTML - the underlying mark-up language used to create web pages. But if you would like more information about it take a look at **Wikipedia**.

There are also a variety of other tools to enhance your website, for example

- Clip art and photo galleries where you can find free images for the site, e.g. **Absolutely Free Clipart**
- Other resources, like buttons, e.g. **Buttonator** and other clever little tools (known as widgets) like **Snap Preview Anywhere** which lets users preview sites that you are linking to (as used on this site), and other widgets, see **Widgetbox**

The following article explains how to make use of web widgets, e.g. a video from YouTube, on your blog or website.

- [Digital Content Distribution Made Easy: Web Widgets - What They Are How They Can Bring New Life To Your Blog - Video Guide](#) Robin Good, 27 November 2006

### Creating an effective website

To create a usable and effective website - whether it be used for learning or other purposes - does requires some skill. The following resource provides a step-by-step guide to creating a website - from registering a domain name, through understanding HTML and style sheets to usability and design principles as well as creating graphics.

- [Creating a website - a step by step guide](#)

### Reading web pages

Obviously a web browser is required to view web pages, but there are now a variety of different web browsers available and extensions to support personal productivity (e.g. when using the web for academic or research purposes) - see **28 Accessing web content**.

### More free tools

- [Directory of Free E-Learning Tools: Web page tools](#)
- [Directory of Free E-Learning Tools: Widgets and accessories for blogs and web pages](#)
- [Directory of Free E-Learning Tools: File storage and sharing tools](#)

### More reading

- [Widgify](#), Taming the Wild World o' Widgets
- [Web 2.0 How to Design Guide](#) Ben Hunt, 2006
- [Web Style Guide](#) Patrick Lynch and Sarah Horton, 2005
- [Job Aid or Training?](#) Susan Wilson, San Diego State University
- [A Web Guide for educators](#) Daniel Pfeifer, DePauw University, 1998

## 7 Blogs (and RSS)

Blogs are being used for a variety of learning and performance purposes as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
Course/teacher blog	Course/instructor, learner/group blogs	Project, department, and topic blogs	Individual blogs
Internet & Society Course blog Northwestern University	WOM, Buzz and Viral Marketing Northeastern University	The Venice Project Blog	Jane's E-Learning Pick of the Day Jane Hart
Student/group blogs			Organisational blogs
warwickblogs Warwick University			Blogs @Cisco Cisco Systems

### What is blogging?

Blogging, as an activity, has really taken off in the last few years. There are lots of statistics around that suggest that there are 10 million blogs, even 30 or 50 million blogs around. Although these figures are not particularly helpful, what it does show is that blogging is a very easy way to get a web presence. Much easier in fact than setting up a web site. So what is a blog - and how does it differ from a traditional web site?

The main feature about a blog is that postings are made to it chronologically. In other words every time you make a posting or entry, a date is associated with it. You can also categorise the postings so that they can be accessed in this way rather than chronologically, but generally the "home page" is the last posting that you made.

Although many individuals use blogs as personal web spaces to write personal diaries or online journals, these are often seen as "streams of consciousness" and for this reason blogging is often seen in rather a negative light. However, as will be shown below blogs can be used in many other ways for learning or performance purposes..

One of the other significant features about blogs, is that people can go to them NOT just to read what the author has to say, but ALSO to write comments and contribute to a debate on a subject.

So, let's take a look at blogging in both a educational and corporate setting:

### Educational use of blogging

Although many educationalists keep personal blogs with their reflections on teaching and the use of educational technology etc, and indeed students often keep blogs on their experiences at college and university, they can also be used for course purposes.

The fact that chronological postings can be made so easily means that they can be used to create a very dynamic focal point for a course, where teachers can make course announcements, provide access to course resources (e.g. documents, presentations) and, as and when appropriate, encourage topical discussion by students. Course blogs have therefore been seen to be an easy to use alternative to a course management system/virtual learning environment.

The following resource looks more at the educational use of blogging.

- [7 things you should know about blogs](#), Educause, 2005

## Corporate use of blogging

*"Most learning in organizations is informal, yet the majority of learning dollars are spent on formal courses. If organizations are going to successfully transfer knowledge between employees, they must tap into informal learning. One approach that has been used successfully is the corporate blog."*

This is the opening paragraph of a brief article, [Blogging to learn and learning to blog](#), written by Karl Kapp and Lisa Neal and published in eLearn Magazine on 4 December 2006.

Blogs are an extremely effective way of supporting the informal learning needs of an organisation. Although they which might be authored by individuals or groups they can also foster discussion by others in the organisation.

Take for example the very common activity of new product development. The normal sequence of events is for the product to be developed by a group of individuals within the organisation, and once the product is ready, there is often a last minute attempt to create training materials about the product to upskill the work force, sometimes resulting in the case that the product is launched before the sales team are able to talk about it. A new product blog approach would cut through all this: R&D could describe and talk about the process of new development and the way a new product is shaping up, whilst the sales force would receive this information on a regular basis and could respond by asking questions about the new product or by providing vital input directly to the team about the product's development that might be essential to its success in the marketplace. In this way the sales force would have been informally trained on the product by the time the product was released, and could immediately start to talk to their clients about it.

Another use of blogs might be made by senior managers, who could provide updates on strategy or at the very least communicate in a regular and personal way with their employees on organisational matters.

And in many organisations, employees are encouraged to write public blogs as an effective means of advertising, marketing or public relations for the organisation. And for employees reading about the activities of competing organisations could be a big eye-opener.

Finally, of course, they also have a part to play in supporting formal corporate training. Just as in the educational environment they can be used to provide the focus for a course or training programme, where the instructor can make training announcements, provide access to training resources and engage participants in topical discussions. The use of blogs in this way has led to them being seen to be an easy to use alternative to a learning management system.

[For more information about corporate blogging, see the [Wikipedia entry](#).]

## Creating blogs

There are many free tools available to create a blog. Essentially these are of two types

- i. hosted service
- ii. software downloadable and installed on a server.

For most individuals, of course, a hosted service is easiest. You simply sign up and get started. Blogs can usually be made available as either public or private (i.e. password required to access them). [Blogger](#) is probably the best known of the free hosted services, although of course there are many others.

For an organisation, though installing software may be the answer, if blogging is being taken seriously as an enterprise activity, since it will also provide extra security for the organisation. Of these [WordPress](#) is a popular choice.



Blogging tools do vary quite considerably in the functionality that they offer and some of the newer blog hosting services take blogging to the next level with free web space and other features, e.g. [Terapad](#). Other services offer both blogs and wikis in one place, e.g. [Netcipia](#). Also some content management systems (see **26 Managing content**) offer blogging functionality.

### Adding style to blogs

Here is a useful article that explains how to add a touch of style to a blog using HTML.

- [Useful HTML tricks for bloggers - add a touch of style](#), Digital Inspiration, January 3 2007

### Blog widgets

Bloggers can also add all kinds of extra types of content to their blogs to provide extra features. These are usually referred to as widgets, and might be things like the [Snap Preview Anywhere](#), which lets you preview linked websites.

The following article explains how to use web widgets to add interest to your website or blog.



- [Digital Content Distribution Made Easy: Web Widgets - What They Are How They Can Bring New Life To Your Blog - Video Guide](#) Robin Good, 27 November 2006

### Audio blogging

This is also referred to as podcasting, and in all the cases above, podcasts (see **10 Podcasts**) might also be part of the blog, to provide an extra dimension to the content provided.

### RSS

One of the "must have" features of a blog is an RSS feed - and pretty much all blogging tools have this functionality as standard. This feature enables your readers, rather than having to come to your blog on a regular basis to look and see if there are new postings, to be sent the information about new postings directly to them.

RSS stands for Really Simple Syndication. RSS feeds on a blog are generally marked with an icon like  or  or there is a piece of text like Subscribe here. Readers can then subscribe to the blog feed and use a RSS reader or aggregator to read all the feeds they have subscribed to in one place. With some readers they can also be notified when new postings are received. (See **28 Receiving new content automatically**)

However, understanding RSS and how feeds can be read in a reader or aggregator can still be quite a big technical leap for many people despite the fact that RSS functionality is now being built into many tools, with which they are very familiar, e.g. Internet Explore 7. So it is often useful to provide your readers with another, more usual option, and that is for them to read the feed as an email. (See **28 Receiving new content automatically**)

There are also a number of free services that you can use to take your RSS feed and convert it into an email. One such service, that I use on my blog is [Feedblitz](#), which is very easy to set up.

### Serialised feeds

One significant improvement for feeds is now the ability to create serialised feeds. This way you can chunk your content up, timestamp it and have sent out automatically. The following articles explain more:

- [RSS for serialised content](#), Surfarama, 18 October 2005
- [What is a serialised web feed](#), FeedCycle

## More free tools

- [Directory of Free E-Learning Tools: Blogging tools](#)
- [Directory of Free E-Learning Tools: RSS Feed tools](#)
- [Directory of Free E-Learning Tools: Widgets and accessories for blogs and web pages](#)

## More reading

### Useful blogs about e-learning

- [Jane's List of E-Learning Blogs, Podcasts and News Feeds](#)
- [Links to school bloggers](#)

## Blogging

- [How to use blogs in the workplace](#), Rod Boothby, 21 January 2007
- [Intranet 2.0: Blog Networks, Social Bookmarking, Mash-Ups And Wikis](#) Robin Good, 24 June 2006
- [Business blogging and the business of online publishing](#)
- [Blog project reveals daily lives](#), BBC News, 18 October 2006
- [Blogs and wikis: Technologies for enterprise applications](#) Lauren Wood, The Gilbane Report, Vol 12, No 10, March 2005
- [Educational blogging](#), Stephen Downes, Educause, Sept/Oct 2004
- [Add video to your blog using YouTube](#), About.com, 2006

## RSS

- [Untangle the World Wide Web with RSS](#), Reuters, 28 December 2006
- [RSS: A learning technology](#), Eva Kaplan-Leiserson, Learning Circuits, May 2004
- [RSS: A Quick Start Guide for Educators](#), From Will Richardson, [www.weblogg-ed.com](http://www.weblogg-ed.com)
- [RSS Ideas for educators](#), By Quentin D'Souza From TeachingHacks.com
- [RSS: The next killer app for education](#), Mary Harrsch, originally in the technology source, July/August 2003

## 8 Wikis

There are a number of opportunities for using wikis in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
For collaborative learning and co-creation of coursework	For collaborative learning and co-creation of training resources	Work on collaborative team projects, e.g. co-creation of project resources	Personal use of wikis as note pads
<b>E-Learning concepts and techniques</b> Bloomsburg University of Pennsylvania  <b>epedagogy</b> University of Plymouth	<b>Effective Practices in Online Learning</b> Sloan C	<b>WikiHow</b> Collaborative Manual  <b>Memorable.org</b> Flashcards	<b>Wikipedia</b>  <b>A Million Penguins</b> Collaborative novel

### What are wikis?

Wikis are tools that allow for collaborative editing and publishing and hence the creation of **user generated content**. Wikis are another example of **social software** (software that encourages people to come together).

The most obvious and famous example of a wiki is of course **Wikipedia**, which is an encyclopaedia that has been created by thousands of individuals. Every page in Wikipedia can be edited, which means it is constantly evolving and growing and can be kept up to date.

Take a look at the **Wikipedia definition of social software**. At the top of the page you will see a number of tabs. The **article** tab shows the displayed page, the **edit this page** tab lets you make changes to it. (Note that in the case of Wikipedia, while you are free to edit without logging in, your IP address will be recorded in this page's edit history. This means any vandalism to a page can be tracked.)

If you want to edit a Wikipedia page, then read this article, which explains how to do it and some of the conventions used: **Editing Wikipedia**. But you are advised to experiment first in the **Sandbox** first.

### Why use wikis?

Wikis are a useful tool when you want individuals - learners, colleagues, etc to **collaborate** and work together on creating a common document, e.g. an assignment, a project document, a manual, and so on or to work on a common strategy or event, e.g. a conference programme.

In education and training, they therefore have a big part to play in fostering and encouraging collaborative learning. Take a look at this article for more about their educational use:

- **7 things you should know about wikis**, Educause, July 2005, [PDF]

The use of wikis in the corporate world is less understood. But this article explains a little about the power of wikis in the workplace.

- **Why wiki?** Jay Cross, CLO Magazine, December 2006

One important aspect of using a collaborative tool like wiki where a number of people are working together is keeping up with the changes that have been made. Many of the wiki tools therefore incorporate RSS technology so that users can be notified of changes to the wiki. (For more information about RSS, see

## **7 Blogs (and RSS), and for information about how to subscribe to and receive RSS feeds, see See 28 Receiving new content automatically**

Finally, a further use of wikis is as **personal** tools to create web pages or as personal notepads. Wikis are therefore quite popular tools in organisations where this is sometimes the only way to create a personal, professional web page.

### **Tools to build wikis**

There are two main ways of using a wiki: download the software and install it internally or use a hosted service. Here are some useful tools:

- **MediaWiki** is the software that was originally written for Wikipedia, so provides a Wikipedia "look and feel" type wiki. MediaWiki is for download, but **Wikia** is a hosting service that also uses MediaWiki to power the wikis that are set up. Useful for both collaborative and personal use.
- **pbWiki** is another hosted service and allows you to set up a wiki very quickly, as is **Wetpaint**
- If you are looking for a personal, notepad-type wiki to download onto your own computer, then **Wikidpad** and **Zulupad** are useful tools

### **Setting up a wiki**

Although the infrastructure for setting up a wiki is very quick to implement, what might not be so obvious for individuals is how to work on a collaborative wiki. Collaborative working may not come naturally to them. So here are some pointers.

- It is very important to explain the reason or purpose of the wiki, and how important or necessary their contribution or participation is.
- Rather than just providing them with a blank wiki, add some content to give them an idea of how it might be used
- Provide them some clear guidance on how to create and edit pages, often a separate document is better than having them work with a number of open web pages trying to work out how to do it
- For internal use, password protection may not be necessary, but for a hosted, web-based wiki, it is pretty essential to ensure that you don't get rogue use of the wiki.

### **More free tools**

- **Directory of Free E-Learning Tools: Wiki tools**

### **More reading**

- **Collaborative exam creation**, Elizabeth Lane Lawley, 24 January 2007
- **Conference wikis - a great application**, Bill Ives, 16 January 2007
- **Wikis in Action**, Collaborative Thinking, 24 November 2006
- **Introduction to Wikipedia and WikiNews**, Josef Kolbitsch and Hermann Maurer, MasterNewMedia, 23 November 2006
- **Introduction to Wikis - how the Web is transforming itself**, Robin Good, 11 November 2006
- **Wikis at work**, Dice, September 2006
- **Intranet 2.0: Blog Networks, Social Bookmarking, Mash-Ups And Wikis**, Robin Good, 24 June 2006
- **Wikis - a disruptive innovation**, Cindy Gordon, KM World, 26 May 2006
- **Dresdner, Kleinwort Wasserstein**, Social Text, 2006
- **Blogs and wikis: Technologies for enterprise applications**  
Lauren Wood, The Gilbane Report, Vol 12, No 10, March 2005
- **Using Wiki in Education**, edited by Stuart Mader
- **How to start a wiki**, WikiHow

## 9 Presentations

Presentation tools can be used to create a variety of formal and informal learning materials as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Lecture presentations without voiceover	Training presentations without voiceover	Short presentations on job-related topics without voiceover	Presentations on general topics without voiceovers
<b>Practical Aspects of Modern Cryptography</b> University of Washington	<b>Training on Catheter Urinary Tract Infection Surveillance</b> Health Protection Scotland	<b>SFCC Student Employee Orientation</b> Santa Fe Community College	<b>Gettysberg Cemetary Dedication</b> Peter Norvig
Lecture presentations with voiceover	Training presentations with voiceover	Short presentations on job-related topics with voiceover	Presentations on general topics with voiceovers
<b>The afterglow of the Big Bang</b> Gresham College	<b>e-Leave training for Employees</b> South Carolina Budget & Control Board	<b>Introduction to Sonnet 9.0</b> Sonnet Software	<b>Living with change</b> Gresham College

### PowerPoint

Microsoft PowerPoint is probably the most popular presentation software - but it's not free, so you need the software to both create and read/annotate text files, although there is a **free PowerPoint viewer** to view, print and copy PowerPoint files only.

Also if you do have PowerPoint on your computer then you can create and publish presentational-type resources in the native format (i.e. .PPT) as well as convert them into PDF format (see **5 PDFs and E-Books**) using appropriate tools and even into web format, (i.e. HTML/web pages) – see **6 Web pages**.

### Other ways of creating presentations

However, if you don't have PowerPoint on your computer there are other free alternatives.

1. You can download presentation software for your computer
2. You can use web-based presentation tools

Let's take a look at these two options:

1. Probably the most well known of the downloadable tools is **Open Office Impress**, as it is open source software. It also has the advantage that you can convert the presentation into Flash format (see below). It's look and feel is very similar to PowerPoint but if you would like some help in using it, here are two useful resources.
  - o **Open Office documentation** for comprehensive guides, how-tos and tutorials
  - o **OpenOffice Lessons**.
2. Web-based versions of presentation software also have the additional functionality that it makes more easily sharable with others. Examples include **Zoho Show** and **Thumbstacks**.

### Sharing your PowerPoint/OpenOffice slides

If you have created your slides in PowerPoint or OpenOffice, one way to share them is to upload them into **Slideshare** - you can simply share the link or embed them into a blog (see **7 Blogs and RSS**) or web page (see **6 Web pages**)..

## Live presentation

For ways of delivering a presentation live, see **13 Screen sharing**, **14 Web conferences** and **21 Instant messaging**.

## Narrated presentations

To create a narrated presentation in PowerPoint, you can select Record Narration from the Slide Show menu. You will obviously need a microphone to record the sound which will be saved with the slides. However, the file will now be much larger and those viewing the slides on a slow connection will have to wait longer to download the file.

One alternative is to use the free PowerPoint plug in **Producer**, which will allow you to create a narrated presentation. However, you will need to place them on a Windows Media server to stream the presentation to your users.

## Flash-based presentations

Nowadays, however, a popular way of delivering a presentation over the Internet is to convert it into Flash. There are a number of good reasons to do this:

- the file size is smaller
- narrations can be included
- it is an easier way to "stream" the file

Unfortunately, all the PowerPoint tools that are used to do this that include narrations are not free, but there are a few free tools that can create non-narrated Flash presentations for free, e.g. **Powerbullet Presenter** and **Spresent**.

- In a recent article (25 December 2006) Robin Good reviewed Spresent: [Web presentation gets better](#).
- In another article Amit Agarwal explains how to [Embed Powerpoint Slides as Flash Presentations in your Blog without Spending a Dime](#) by using Flickr.

## Presentations for iPods/mobile phones

As for presenting slideshows on mobile devices, here is guide on how to make a slideshow presentation for mobile phones and iPods

- [Learning slideshows for mobile phones and iPods](#), Dug Belshaw, 9 July 2006

## More tools

- [Directory of Free E-Learning Tools: Presentation tools](#)

## More reading

- [PowerPoint and accessibility](#), NCDAE, December 2005
- [Creating an inexpensive PowerPoint online module](#), Michael McGinnis, LTI Newslines, 21 July 2005
- [Drafting the PowerPoint presentation](#), Michael McGinnis, LTI Newslines, 13 August 2005
- [PowerPoint to Flash Conversion Tools - The PPT2Flash Top20](#), Robin Good, 14 April, 2004
- [Best Practices for Narrated PowerPoint Presentations](#), Sydney Brown, Kerri Hiatt and Terry Workman, University of Nebraska-Lincoln, [PDF]
- [Microsoft PowerPoint, links to resources](#), Internet 4 classrooms

# 10 Podcasts

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Podcasts are being used for a variety of learning and performance improvement purposes as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
Coursecasts (i.e. audio/video lectures)	Coursecasts (i.e. audio/video training sessions)	Project/topic podcasts	Company, individual and subject podcasts
<a href="#">webcast.berkeley</a> University of California  <a href="#">Stanford on iTunes</a> Stanford University	<a href="#">ChinesePod</a> (Daily Chinese lesson)  <a href="#">Global Knowledge Listen &amp; Learn Podcast series</a> Global Knowledge	<a href="#">IdeaCast</a> Harvard Business Review	<a href="#">Podictionary</a> (the audio word of the day)  <a href="#">iPlay Music</a> (learn to play the guitar)

## What is podcasting?

Podcasting is something that has really taken off in the last year or so. Everywhere you go, you hear people talking about podcasting!

Podcasts are essentially MP3 files that can be played on computers (PCs/Macs) or downloaded onto MP3 devices like iPods as well as other MP3 players. They get their name from the contraction of the words "iPod" and "broadcasting". For more general information about podcasts, see the [Wikipedia definition](#).

## Listening to a podcast

Since the concept of podcasting derives from the world of the Apple iPod, one of the most familiar and easiest ways of listening to a podcast, is to use Apple's [iTunes](#),

You can either download the podcasts (ie MP3 files) individually and listen to them on your computer and then transfer them to your iPod or MP3 player, but better still you can subscribe to the RSS feed, which means that when any new podcasts are created, these are automatically downloaded by the software, and uploaded to your PC and consequently your MP3 player.

## Why podcasting?

The advantage of podcasts, of course is that they are very portable, so you can listen them not only at your desktop, but also whilst out jogging or travelling.

Although podcasts were originally audio-only files, they can now contain videos - so these aren't might not be so easily viewable whilst you are doing other things as they do require more concentration.

## How is podcasting used?

Podcasting is used in many different ways as can be seen in the examples in the table above, but one of the significant aspects of podcasting is (using RSS) that they provide a way for the generator of the podcast content to send the content down to the user and be sure they receive it, which in e-learning terms is pretty significant.

Lecturers in **educational establishments** are now beginning to use podcasts as a way of pushing audio lecture presentations down to their students. Use of podcasting in this way has led to the term "coursecasting". For the educational use of podcasts, take a look at this resource from Educause, June 2005:

- [7 things you should know about podcasting](#),

**Corporates** are beginning to create internal podcasts of executive briefings, short training sessions for their staff as well as external podcasts about their business as marketing and PR initiatives. The following press release explains how one organisation, Alcatel, is using podcasting internally.

- [Podcasts-in-action: how a telecoms giant integrated podcasts into their everyday communication strategy](#), 31 January 2007

But, as the following resource says, to create an effective corporate podcast is not easy, but to create an ineffective one is very easy, so take a look at the

- [Top 5 Corporate podcast mistakes to avoid like the plague](#).

**Individuals** also use podcasting as a way of self-publishing on any topic they are interested in in a form of a radio show. So for instance educational technologists frequently produce podcasts on topics to do with the use of learning technologists.

### Notes on podcasting

- Podcasts are often posted on blogs (see **7 Blogs**), which means that blogging and podcasting technologies have almost merged.
- Audio podcasts are particularly useful when listening is important e.g. in language learning.
- Video podcasts are very useful when watching is important, e.g. watching how to complete a task, e.g. cooking a recipe.

### Creating podcasts

The important thing about creating an audio podcast is that it has to be in the MP3 format. Most PCs allow you to create audio files in WAV format, but this then has to be converted into MP3 format. [Audacity](#) is a useful piece of software to use to do the conversion. You just then need to add it to your RSS feed.

For more information about creating a podcast, take a look at this resource:

- [How to create your own podcast - A step-by-step tutorial](#), Corey Deitz

Another way of creating a podcast is to record an interview conducted over the Internet using [Skype](#) and [Powergramo](#). For more about using these type of tools, see **21 Instant messaging and voice chat**.

### Length of podcasts

Podcasts can vary quite considerably in length, style and format. In most cases they are scripted. [Jay Cross](#) has moved to a model of nanocasting, which he defines as 5 minutes and non scripted and impromptu.

### Hosting a podcast

Finally you will need to host your podcast somewhere. There are a number of ways to do this, including specialist podcasting sites like [Podomatic](#).





### Example of the use of free tools to create and deliver podcasts

Peter Travis of Splendid Speaking produces a weekly podcast for advanced level English Language students. Students contact him to sign up for an interview through Skype. The interview will be student driven and the content will be determined by, for example, the particular exam they might be doing or a situation at work that they want to practise for such as an interview or meeting. The interviews are recorded using Powergramo and then posted as a podcast for other advanced learners to listen to.

Each podcast features an introduction to the skill being looked at, the interview itself and then feedback from Peter on the student's performance. The podcast is hosted at Podomatic: [Splendid Speaking](#).

### Useful podcasts about e-learning

- Jane's listing of [E-Learning Blogs, Podcasts and News Feeds](#)

### Further Free Tools

- [Directory of Free E-Learning Tools: Podcasting tools](#)
- [Directory of Free E-Learning Tools: Media creation tools](#)
- [Directory of Free E-Learning Tools: RSS newsreaders and alerts](#)

### Podcasting course

- [Podcasting Basics](#) - a free introductory course on the basics of educational podcasting, designed for educators wanting to find out more about this topic.

### Further Reading

- [The role of educational podcasting: reviewing the possibilities](#), kinoeye, 24 December 2006
- [Podcasting and file sharing- how the web is transforming itself Part IV](#), Josef Kolbitsch and Hermann Maurer, 20 November 2006
- [Will podcasting finally kill the lecture?](#) David Hearnshaw, Guardian, 19 September 2006
- [Podcasting: Co-opting MP3 Players for Education and Training Purposes](#) Zane Berge, Online Journal of Distance Learning Administration, Fall 2006
- [Podcasting after iTunes](#), Steve Friess, Wired News, 28 June 2006
- [How to create a podcast](#), Franklin McMahon, 3 January 2006
- [Podasting: the emerging business of nanocasting](#), Thanas Goga, 9 November 2005 [PDF]
- [Exploiting the educational potential of podcasiting](#), Dave Jobbings, Russell Educational Consultancy and Productions, April 2005
- [Podcasting for educators](#) MAKEzine
- [Podcast lectures for uni students](#), BBC News, 26 May 2006
- [Podcast User Magazine](#)

# 11 Courseware and Tutorials

There are a number of tools that can be used to create a variety of courseware and tutorials as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Courses and tutorials	Courses and tutorials	Short tutorials on job-related topics	Existing courses and tutorials to dip in and out of
Digital Imaging Tutorial Cornell University  What is a print? MOMA	Infection Prevention EngenderHealth  CiiP (Current Learning in Palliative Care) Help the Hospices	Peter's Online Typing Course Peter Hudson  Cisco IP Phone 7960 Cisco	How to be a gardener BBC  instructables

## What is courseware?

Most people equate e-learning with online courses and training modules. The purpose of an online course is to present a learner with information about a subject in a logical way, and then let them interact with that information in some sort of way, finally testing them on that information - although some courses or training modules will only do some of these things, e.g. present information to you.

## Creating courses and tutorials

Although there are a lot of sophisticated course authoring tools on the market to create interactive, multimedia courses, practically all of them cost a fair amount of money and which require some skill to use. The advent of **rapid authoring** tools has tried to make the process of course and tutorial development easier and quicker, but most of these tools are still not free.

However, it is possible to create basic tutorials and courses - quickly and easily using a number of other free tools in a number of different ways:

## Creating courses and tutorials using web page tools

Web page tools (see **6 Web pages**) can be used to create simple tutorials, e.g. a simple linear tutorial made up of a number of web pages linked together.

Alternatively if you view a "course" as a collection of resources that can be studied at different points in the course (e.g. presentations, documents, etc) then a course website or portal can simply be the "glue" to bring them altogether, in which case this could be achieved through web page tools or even by using a blog (see **7 Blogs**).

## Creating tutorials using PowerPoint

Most people think of presentation tools (see **9 Presentations**) like PowerPoint and OpenOffice Impress as only useful for creating linear presentations, but they are in fact much more flexible and powerful tools.

If you use action buttons and hyperlinks, you can create an interactive tutorial allowing users to take different paths through the tutorial. This article shows you how:

- [Implementing action buttons for MS PowerPoint interactivity](#), Ian Southwell, 15 May 2002

## Creating tutorials using other tools

One of the other tools that is gaining a lot of interest is [eXe](#). This is an authoring application to assist in the publishing of web content without the need to become proficient in HTML or XML markup. eXe can export content as self-contained web pages or as SCORM 1.2 or IMS Content Packages.

SCORM and IMS are learning standards which online courseware, especially those which need to work with learning management systems, need to conform to. For more information about learning standards, see this resource from the Masie Centre

- [Making sense of Learning Specifications and Standards](#), Masie Center, November 2003. [PDF]

## Designing courseware

Designing courses is usually undertaken by instructional designers as it requires some skill. The following guide was primarily designed to help instructional designers and content experts create effective, self-paced e-learning.

- [Designing usable, self-paced e-learning courses: a practical guide](#)  
Michael Feldstein and Lisa Neal, eLearn magazine, 2006

## More free tools

- [Directory of Free E-Learning Tools: Lesson authoring tools](#)

## More reading

- [8 steps to better e-learning](#), Clark Quinn, eLearn magazine, December 2006
- [Exe Open source tool](#), kineo, 2006
- [Crash course in learning theory](#), Kathy Sierra, 3 January 2006
- [E-Learning standards updates](#), Ryann Ellis, Learning Circuits, July 2005
- [Some principles of effective e-learning](#), Stephen Downes, 25 April 2005
- [Instructional design: Choosing the proper authoring tool](#), Gene Holden, intecom online, November 2004
- [The Guerra Scale](#), Tim Guerra and Dan Hefferman, Learning Circuits, March 2004

## 12 Screencasts

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There are a number of tools that can be used to create screencasts for a variety of purposes as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
Software/ application demonstrations	Application/ system demonstrations	Applications/task demonstrations	General demonstrations
Learning by screencast		Windows Indexing	Using RSS 101

### What is screencasting?

[Wikipedia](#) defines screencasting as "a digital recording of computer screen output, often containing audio narration". So essentially it is a way of explaining how to carry out a computer-based task by capturing screenshots and stringing them together with or without narration.

Screencasts are also sometimes known as "tutorials" because of their instructional ability. They are also often referred to as a "computer demonstration" or even a "simulation" - although they only provide a passive visualisation of a computer-based application rather than one that provides an opportunity for a user to interact with the system.

The following is a good article to read about the use of screencasting in education and training:

- [7 things you should know about screencasting](#), Educause, March 2006

### Creating a screencast

There are a number of free tools that you can use to create a screencast, one of these which has become popular, is [Wink](#). Here are a couple of resources on how to make a simple Wink screencast:

- [How to use Wink](#), Hillsborough County TechWizard - created using Wink
- [Using WINK to create custom animated tutorials](#), [PDF] Melissa J. Wert, The Harpeth Hall School

And now for some advice on creating effective screencasts:

- [Top ten tips for creating effective screencasts](#), Bill Myers

### More free tools

- [Directory of Free E-Learning Tools: Screen capture/screencasting tools](#)

### More reading

- [Quick instructions for using Wink to create online tutorials](#) [PDF], Emily Alling, University of Massachusetts,
- [What is screencasting?](#), Robin Good, 2 May 2006
- [What is screencasting](#), Jon Udell, O'Reilly Digital Media, 16 November 2005
- [Clark Aldrich's Six criteria of an educational simulation](#), Clark Aldrich, Learning Circuits. 2004

## 13 Screen sharing

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There are a number of tools that can be used to share screens or desktops for a variety of purposes as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Two users working together, e.g. viewing a lecture presentation	Two users working together, e.g. viewing a training presentation	Task support for a user (2 users)	General IT support for a user (2 users)

### What is screen sharing?

Screen sharing is the ability to share the applications on your computer with one or more other people to work together, e.g. on a common document or to give a presentation. Screen sharing also allows the remote participant(s) to take control of the application running on your computer.

For more information about screen sharing and a comparison of different screen sharing tools including commercial tools, see the following resource:

- [Screen sharing tools and technology: A Mini Guide](#), Livia Iacolare, 25 October 2006

### How to share your screen

There are a number of ways to screen share:

- To connect any two PCs or screens over the Internet, try [CrossLoop](#) or [Bosco's Screen Share](#)
- For 1-1 screen sharing, also consider Instant messaging and voice chat tools (see **21 Instant messaging and voice chat**) – for example, [Windows Live Messenger](#) supports application sharing and Remote Assistance)
- For larger groups consider web conferencing – see **14 Web Conferences..**

### More free tools

- [Directory of Free E-Learning Tools: Desktop/screen sharing tools](#)

### More reading

- [Bosco's Screen Share usage](#), Component X, 2005

# 14 Web Conferences

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There are a number of ways that web conferencing tools can be used for learning and performance improvement purposes as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Scheduled lectures with large number of remote participants	Scheduled training sessions with large number of remote participants	Scheduled team/ project meetings with a group of remote participants	Scheduled meetings with a group of remote participants
<a href="#">Educause Live! Archive</a> EDUCAUSE		Sales and marketing events Product launches	Company briefings and meetings

## What is web conferencing?

A web conferencing is essentially a live meeting conducted over the Internet with a group of remote participants, and is also sometimes referred to as webinar. (Note the term "web conference" or "webinar" are not to be confused with the term "webcast", which is a one-way broadcast.)

In a web conference you usually find some, if not all, of the following features

- a slide (e.g. PowerPoint) **presentation** is given by the presenter/instructor to the group, which the group can annotate, with the permission of the presenter
- the presenter can also **share an application** (e.g. Word or Excel) running on his/her desktop so that the group can work together collaboratively on a document or other resource
- the presenter and participants can **co-browse** the Web
- the presenter can involve participants by running **polls** to gain input or feedback from them
- the participants can **communicate** via voice (using VoIP [voice over IP] or by dialling in to a central number) or by text messaging
- the presenter can **share files** with the participants.
- the presenters and participants can display **live video** from a web cam, although the speed of the Internet connection will determine how successful or useful this is in practice

## Web conferencing in education and training

A group of participants - either remote or sitting in the same room as the presenter - can be present in a live lecture or training session. This is therefore a useful way of bringing together cohorts of learners who might be taking the same course/training event in different modes, i.e. one by traditional, face-to-face, classrooms and the others online.

## General use of web conferencing

Web conferencing tools are not dedicated learning tools; they have a variety of uses and hence can be used to hold a range of general meetings and live sessions, e.g. departmental, project or team meetings. Once again local participants may be in the same room as the presenter whereas others may be remote, thus bringing everyone together at the same time.

## Tools to run web conferences

There are now a number of web conferencing tools on the market place; some are expensive whilst others are free. To decide which is the most appropriate for your needs, you should consider the list of features above and decide which you need.

Two popular free web conferencing tools are [Powwownow](#) and [vyew.com](#).

### Preparing for and delivering a web conference

Running a web conference or webinar is not just about knowing how to use the technology but also about the following:

- Schedule the event - events should not be scheduled for longer than 1 hour because it is unlikely that participants will be able to concentrate for an longer
- Invite participants - this may be done automatically through the system or you may need to send emails etc to participants
- Prepare the slideset for the event - remember you should make it as INTERACTIVE as possible with a small group of participants, try to incorporate features like slide annotation, polling, whiteboarding, co-browsing, whenever you can to keep them immersed in the event so their attention doesn't wander
- Make sure you are confident and competent with the software - rehearse if you can to ensure that you know how everything works
- Make sure your participants are confident and competent with the software - you might want to provide some pre-event to explain how to use some of the interactive tools, in order not to waste precious time in the event itself
- Make sure (if possible with the software) that you set it up for the event with the right level of permissions etc - e.g. if you don't want participants to chat amongst themselves whilst you are presenting, turn off that feature.
- Enter the event yourself well in advance of the meeting time - to ensure that everything is set up just as it should be
- (If possible) run the event with another person - who can keep an eye on things like text questions coming in from participants or requests to talk etc. running an event singlehandedly can be very mentally tiring.

Take a look at this guide which provides a countdown to running an event as well as some tips on presenting the event

- [How to run a webinar](#) Premiere Global Services, [PDF]

### Alternative to web conferencing

Another way of offering a conference is using Skypecasting. For more information, see **21 Instant messaging and voice chat..**

### More free tools

- [Directory of Free E-Learning Tools: Web conferencing tools](#)

### More Reading

- [Promoting synchronous interaction in an elearning environment](#), Cheng-Cheng Pan and Michael Sullivan, THE Journal, September 2005
- [Top synchronous myths and their realities](#), Nanette Miner, Learning Circuits, October 2005
- [834 Tips for Successful Online Instruction](#), free eBook from eLearning Guild

# 15 Tests and Quizzes

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There are a number of ways that tests and quizzes can be used for formal and informal learning purposes as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Course-specific assessment	Training-specific assessment	Self-assessment of job-related topics	Self-assessment of general topics
Logic Pretest John Carroll University	Fork Lift Course Test FreeTraining.com	Self-assess your your attitude to sales situations Selling For Business	Self-assess your present level of life skills Williams Life Skills

## Why tests?

Tests are frequently to be found in formal courses and training sessions. These might be:

- **pre-tests** - to find out what level of knowledge or skill a student has before entering the course (sometimes used to identify a gap in learning and perhaps to steer a learner to specific aspects of the course rather than to work through the whole course or to identify whether the student is in fact ready for the learning or should take some other course first)
- **in-course tests** - to find out if the student is understanding and learning concepts as he/she progresses through the course (also known as formative learning) which usually relies on self-assessment rather than scoring and reporting
- **post-tests** - to find out whether the student has learnt as a result of the test - also known as summative assessment and often used with pre-tests to compare the progress a student has made by using the course, and/or to assess whether a student is ready to progress to a further (part of a) course

Other uses of testing includes:

- **self-assessment tests** to help an individual understand their level of competency in a task or topic and possibly provide guidance on performance support solutions that can help to improve understanding.

## What do online tests look like?

Online tests usually appear in one or more of the following formats: multiple-choice, true/false, drag-and-drop, short answer, crossword, etc, which are an easy way to assess a lot of knowledge in a small space and also easy to "mark". Results may be collected and stored or feedback given to the student straightway. However, in general their use is limited to testing for quite superficial learning. Tests of this type may also be called "quizzes", "exercises" or "activities", possibly to downplay their significance or to make them look less threatening to the student.

To assess deeper learning in education you may need to resort to old methods, e.g. essays, assignments etc., although electronic methods can be used to capturing them, e.g. by entering text directly into webs pages (see **16 Collecting user input**) or have them sent by email. In training other ways of assessing the acquisition of skills might be through simulations or scenario-based role-playing.



## Tools to create online tests and quizzes

There are a number of ways to create basic online tests like multiple choice, true/false etc:

Web page tools (see **6 Web pages**) can be used to create simple multiple choice tests, by simply linking a number of web pages linked together. One page lists the options and the linked pages take you to the right or the wrong answers.

Dedicated testing tools let you create your tests offline or use a hosted service.

**Hot Potatoes** is a good example of a offline testing tool (although it is only free for non-profit use) as it provides 6 testing applications.

Hosted testing tools like **Zoho Challenge** allow you to collect and store results onboard. For other applications with significant scoring, recording and reporting functionality see **25 Managing courses and learners**.

## Writing online tests

Despite the fact that there are easy-to-use tools available to create online tests, the tests themselves require some thought to ensure that the questions are well constructed and not ambiguous. Writing multiple-choice tests pre-dates the use of the web, so there is plenty of literature to provide guidance on writing tests like these. Take a look at this article:

- **Writing multiple-choice test items**, Jerard Kehoe, Virginia Polytechnic Institute and State University, 1995

## More free tools

- **Directory of Free E-Learning Tools: Testing tools**

## More reading

- **E-Assessment of short answer questions**, Intelligent Assessment, November 2006 [PDF]
- **Building better e-assessments**, Margaret Driscoll, Learning Circuits, June 2001

# 16 Collecting User Input

There are a number of reasons for collecting user input in both formal and informal learning solutions as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Interactive workbook	Interactive workbook	Job-related questionnaires, surveys and polls	General questionnaires, surveys and opinion polls
What is palliative care: Activities Help the Hospices Introduction to e-Learning Jane Hart's Example		Job satisfaction poll Jane Hart's Example	What do you think?Silicon.com
online essay submission			
Assignment 1 Jane Hart's Example			
student feedback	learner feedback		
Comp 607 Student Feedback form Rice University	Course feedback Corps business		

## Why collect user input?

As you can see above there are a number of reasons why you might want to collect user input.

## How to collect user input

There are a number of ways to collect user input.

### 1. Create your own web form

You can use the form EITHER (simply) to allow users to input information - as notes on the page, and then print this out OR (more complex) to process that information in some way, e.g. to print it out on another page or to email it an instructor or someone. To do the latter requires a little program to be running on the webserver. For this you might need some help. But if you want to have a go, then here is an article on how to do it from Indiana University: [Creating web forms](#).

### 2. Use an online form service

There are a number of services which allow you to create a form online and host the form for you, thereby providing all the processing functionality for you. There are now a number of free online form service, e.g. [Createforms.com](#) or [Surveymonkey](#) (which has a free version)

### 3. Using an online polling service

For quick, one off questions there are a number of places which offer free polling services, e.g. [Poll daddy](#).

Note: there are other ways of creating forms. You can create forms as, for example Word documents, (see [4 Textual documents](#)) or as PDFS (see [5 PDFs and E-Books](#)) and make them available online to download or submit online.

## More free tools

- [Directory of Free E-Learning Tools: Forms, surveys and polls](#)

## More reading

- [Using Forms in Word XP](#), Wellesley College

# 17 Games and Virtual Worlds

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There are a number of ways that tests, quizzes and learning games can be used for formal and informal learning purposes as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Games based leaning	Serious games	Serious games	Learning games
Blood typing Nobel Foundation	Lemonade Stand Bored.com	Virtual Trader IEX InfoExchanges	Fantasy Health Minister New Statesman
Avatar-based virtual world education		Immersive worlds	
LaSalle Virtual Campus	EduNation	Second Life	

## What are learning games?

We are now seeing the rise of a whole new genre of activities which are commonly referred to as learning games, which are based on computer games with points, levels, winners, losers, etc . Many of them could also be referred to as "simulations", since they allow the learner to immerse himself or herself into the game and act the part of someone in the game or simulation.

Games can be played on your own or with others on the Internet, when they are often known as a MMO or MMOG (Massively Multiplayer Online Game). MMOs let players compete with one another or a grand scale

Within some corporate environments (and also within some educational environments) the term "learning game" has been frowned upon, hence sophisticated games are often more commonly referred to as "serious games".

To create sophisticated serious games, it has to be said, is probably out of the scope of most individuals and organisations and requires specialist development. But here is one way you could provide a basic learning game using a presentation tool.

## Presentations as learning games

The types of learning games you can create using presentation tools (see **9 Presentations**) is Jeopardy or Who wants to be a millionaire? This article describes how you can do this.

- Using PowerPoint to play educational games, University of Minnesota, 9 January 2005

But you don't even have to build the games yourself, you can download templates to do it for you.

## What are virtual worlds?

Second Life is a major resource at the moment. It is

*"an online society within a 3D world, where users can explore, build, socialize, and participate in their own economy ... Since opening to the public in 2003, it has grown explosively and today is inhabited by a total of 3,280,394 people from around the globe."*

The only way to really understand Second Life is to experience it. You first need to create an avatar, which is your persona in the online world

One of the major talking points at the moment is how Second Life can be used within an educational or training environment. The Business and Education section, at the Second Life site, explains how it is "an exciting new venue for collaboration, training, distance learning, new media studies and marketing."

Theodore Wright in his article: [Second Life as a Virtual Learning Environment](#), (revised 26 December 2006) states:

*"Avatar-based virtual world education is highly interactive, providing the same convenience of not having to travel while providing a richer, more effective and more enjoyable experience. For such, many students would most gladly make the scheduled time for the virtual classroom."*

### **Educational and training applications of Second Life**

And as has been seen in the examples above, colleges and other training organisations are beginning to offer virtual education and training.

Another major educational implementation is [Sloodle](#), where Second Life meets Moodle, a virtual learning environment.

### **More free tools**

- [Directory of Free E-Learning Tools: Games and virtual world tools](#)

### **More reading**

#### **Serious games**

- [Games and Learning](#), Diana G Oblinger, Educause Quartely, Vol 29, No 3, 2006
- [Serious Games; Serious Business Applications](#), Kevin Corti, PIXELearning Ltd, February 2006
- [An Intro to Online Training Games](#), James Kirk and Robert Belovics, Learning Circuits, April 2004
- [Interactive PowerPoint](#), Coastal Carolina University, 2003

### **Second Life**

- [Second Life: Information and Community for Educators using MUVES](#), Jeremy Kemp
- [Second Life: it's not a game](#), David Kirkpatrick, Fortune, 22 January 2007
- [Giving a PowerPoint presentation in Second Life](#), Andrew Burton, O'Reilly, 27 December 2006
- [Advanced Teaching Technologies: Brave New World](#), Joseph C Panettieri, Campus Technology

## 18 Learning by Email and SMS

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There are a number of ways of learning by e-mail or SMS as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Communication with teachers and peers	Communication with trainers and colleagues	Communication tool	Communication tool
Courses and learning delivered by e-mail or SMS		Job-specific learning delivered by e-mail or SMS	General learning delivered by e-mail or SMS
<a href="#">French for Beginners</a> About.U <a href="#">Learning-by-SMS.com</a> (Language learning)		<a href="#">Beyond Basic PowerPoint</a> About.U	<a href="#">DailyLit</a> <a href="#">Personal SMS daily horoscope</a> Catherine Tennant

### Why e-mail or SMS?

Clearly e-mail and SMS (text messaging) have become very obvious ways of communicating with others, whether it be with teachers, fellow students, colleagues or friends and family.

Within a learning environment they can be used to keep students up to date with new events, give them feedback or send them results, or even just check on their progress.

However e-mail and SMS are valuable learning tools as they can be used to deliver regular "doses" of e-learning, whether it be daily, weekly or less frequently as shown in the examples above.

This approach to learning, which may be seen to be less hi-tech than an online course should not be overlooked as a way of providing course materials to learners.

### Creating a course by email (CBE)

One of the important aspects of creating an email-based course is to divide up the content into a number of reasonable, digestible chunks of learning and decide how frequently these are to be sent to your learners.

The emails can either be basic text emails or HTML emails with or without attachments (e.g. text documents, presentations etc) - perhaps in the format of a newsletter.

The email based course could be self-contained or you could link to other elements like an online discussion or a webinar.

The advantage of email based course is that learners can sign up at any time - you don't necessarily have to run the course with one cohort of learners.

See also this article for more ideas

- [Overview of how and why to create a course by email](#), 2001 Coachville.com

## Creating a course by SMS

In a similar way to the course by email,

- you will need to divide up the material into digestible chunks - bearing in mind they are to be read on a mobile phone.
- the SMS based course could be self-contained or you could link to other elements like an online discussion or a webinar
- learners can sign up at any time

## Tools required to create courses by email or SMS

If you are interested in running courses by email or SMS, here are a number of free services you might want to consider, e.g.

- using a free mailing list service, like [Your Mailing List Provider](#)
- using a free SMS messaging service, like [Crickee](#)

## More free tools

- [Directory of Free E-Learning Tools: Email and SMS tools](#)

## More reading

- [How To Create Rapid and Cheap Mobile Learning- Text Messaging](#), mLearning-World.com, 30 September 2006
- [The Nitty Gritty of ecourses](#), Tips for Top, 2004

# 19 Discussion Forums

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There are a number of reasons for holding discussions for learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Asynchronous course-specific discussions	Asynchronous training-specific discussions	Asynchronous project/job-specific discussions	Asynchronous general discussions
School of Education Discussion Forum Southampton University	Triathlon Training Discussion Forum	IOSH Discussion Forums	Dietetics Discussion Forum

## What are discussion forums?

Discussion Forums aka bulletin boards, discussion boards or web forums have been around in the online learning world for sometime. In the early days they were introduced into courses as a way of providing the social aspect to e-learning by offering a means for users to discuss issues with one another and thereby build a **community of learners**.

In a way they have now been surpassed and subsumed within other tools that support group spaces (see **24 Group spaces**) and course and learner management (see **25 Managing courses and learners**) and in content management systems (see **26 Managing content**) as well as in the newer Web 2.0 social applications, particularly those that offer social networking functionality (see **27 Managing communities**). Even blogs (see **7 Blogs**) provide some basic discussion functionality.

However, discussion forums are worth reviewing in their own right as it is possible that a discussion forum may be *the* solution, or part of a solution, to a learning or performance problem.

Discussion forums provide the infrastructure for users to hold discussions on any subject. A forum usually consists of a number of *threads*, which are a way of seeing all the postings and replies on a particular topic within the forum.

As can be seen from the examples above, course discussions might involve a discussion of issues arising from the course content or provide an opportunity for participants to share experiences.

In a similar way, within a corporate setting, discussion forums might be set up for projects or departments to discuss issues or provide opportunities for employees to share their experiences.

By setting up a discussion forum, you are also encouraging **user generated content**, which could, in fact, form the basis of a knowledge bank or FAQs within the organisation.

## Tools to set up a discussion forum

These are a number of free tools available to create online discussion forums. These can either be downloaded and installed on the organisation's server, e.g. [phpBB](#) or could be a hosted service like [QuickTopic](#).

But as mentioned above discussion forum functionality is often are found in other types of software, and if you are looking for a tool with extra functionality, then you should look at some of these other tools.

## Running a discussion forum

When setting up a discussion forum, one of the questions that is often asked is how do you make it work? If you have to ask this question, then it is probably unlikely that it will work. If discussing issues or sharing experiences with colleagues or peers is not a natural activity for your people, then you should consider whether this is, in fact, the right solution to your problem.

Within education, often instructors set up an online discussion forum to replace a face-to-face seminar, and then find that the students are unhappy to discuss issues online. In many cases, they then feel that they have to spend a lot of time seeding and fostering the discussions or even *forcing* the students into participating by allocating course assessment marks to posting and responding to posts.

In my opinion you should only set up a discussion if you think that the users need one or will participate, otherwise the time required to *make* people participate defeats the purpose. Discussion forums should only be set up where they will be used spontaneously or naturally by individuals or groups.

## More free tools

- [Directory of Free E-Learning Tools: Discussion forum tools](#)

## More readings

- [Jumpstarting your course discussion board](#), Bev Hoerig, 13 January 2006
- [Talk about talk: are discussion forums worth the effort](#), Paul Maharg and Patricia Kellar, Glasgow Graduate School of Law, 10 January 2004
- [Designing and managing effective online discussions](#), Greg Bensfield, 27 June 2002 [PDF]



## 20 Chat Rooms

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There are a number of reasons for using chat rooms in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Real-time course-specific chats, course support	Real-time course-specific chats, help desk	Real-time project-/job-specific chats, help desk	Real-time general chats, help desk
Environmental Philosophy and Ethics Berkeley University	Birmingham Carers Helpline	Customer community chats	Real-time tech support

### What are chat rooms?

Chats rooms are dedicated "areas" that allow one or more individuals to chat together in real-time as you would in a normal face-to-face conversation but using text based messages.

There are **public** chat rooms which anyone can join or **private** chat rooms which only include invited parties and use password controls.

Chat rooms can be used at **specific** times for scheduled events, seminars, training sessions, meetings, etc or be **always-open** for people to come and go as they like, e.g. to provide some sort of help line facility.

Live chat can be a very important part of a learning solution as it can be used as a very private place to discuss course, training, job, project or performance issues in real time with others, although if you want all the participants to be in the chat room at the same time to hold a tutorial or seminar, this could cause scheduling problems.

Also, it has to be said that some organisations still regard the term "chat room" with suspicion as it was often used as a euphemism for "adult chat room" or as an opportunity for inane gossiping. So if you are thinking about setting up a private chat room you might want to call it something else, like a Help Line!

### How to create a chat room

These are a number of free tools that will let you set up a dedicated live chat room. They are of a number of types:

- hosted chat room services like [Campfire](#)
- a piece of javascript code to add to your website/blog, like [Chat'N Search](#)
- a browser add-on, like [Chatsum](#), to download to chat to other Chatsum users.

Chat room tools can also be found within some tools used for course and learner management (see **26 Managing courses and learners**) and within some tools that create group spaces (see **24 Group spaces**).

Of course, another popular way of supporting live chat is through instant messaging (see **21 Instant messaging**), which can also provides voice and video functionality.

## Running a scheduled live chat session

Running a scheduled live chat session requires some thought and preparation in terms of:

- the length of the session
- what is going to be discussed in the session
- ensuring the session stays on track
- involving the participants in the chat

But as with discussion forums (see **19 Discussion Forums**), if this type of activity is going to require a lot of time and effort to make it work, it may not be the best solution to a problem.

## More free tools

- [Directory of Free E-Learning Tools: Chat room tools](#)

## More readings

- [Strategies for using chat](#), Webster University [PDF]
- [Strategies for using chat as a communication tool](#), Illinois Online Network

## 21 Instant Messaging and Voice Chat

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There are a number of opportunities for using instant messaging (IM) and/or voice chat in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
1 to 1 and small groups for course-specific live chat and application sharing	1 to 1 and small groups for training-specific live chat and application sharing	1 to 1 and small groups for job-specific tasks and application support	1 to 1 and small groups for general conversations and application sharing, help desk
Small tutorials Course support	Small group training Training support	Team training Customer support	Real-time tech support

### What is instant messaging (IM)?

Probably everyone is familiar with MSN Messenger which is a piece of software that is installed on PCs as part of the Windows operating system, and which allows communication with others who also have it on their computers.

However, what might not be so obvious is its potential as a tool for learning and performance improvement solutions or that there is a range of other free instant messaging tools available some of which offer additional functionality.

### Key features of IM and voice call tools

MSN Messenger or Windows Messenger, as it was called on Windows XP machines, has now been surpassed by [Windows Live Messenger](#), but essentially it lets you

- create a buddy list of contacts - and you can see who is online at the same time as you
- you can select a buddy and start a text conversation with that person
- you can add in other contacts to create a small conference
- you can send/share files to/with your buddy
- you can play a game with your buddy, e.g. Tic-Tac-Toe, or share an application running on your computer with your buddy, including remote assistance (see Wikipedia entry on [Games and applications for Windows Live Messenger](#) for more detail on this)
- you can set up a webcam and have a video conversation
- you can use VoIP (voice over IP) to make a voice call to another PC with Live Messenger

### Skype

The last feature in the list above is in fact a key feature of [Skype](#), a tool which lets you make free calls over the Internet and low-cost (even free calls) to landlines. Additionally it supports much of the IM feature list above. There are also a number of third party plugins which provide extra functionality, e.g.

- [Unyte](#), to view a desktop or share documents
- [Powergramo](#), to record Skype calls (and also to create podcasts)
- [Pamela for Skype](#), a personal digital assistant

Furthermore, another powerful feature of Skype is Skypecasting. These are defined as "large, live hosted calls on Skype" and can be set up on any subject. This would therefore be a very useful way of running a live lecture or training session

## Other IM/voice tools available

There are a number of free IM and tools available, and the following article is a useful overview of the leading ones.

- [Instant messaging tools and technology: a mini-guide](#), Robin Good, 28 September 2006

You might find one IM tool that suits all your purposes, or like me, you might want to use different tools for different users or activities. If you run a number of different IM tools, then you might also be interested in another tool that aggregates them in one place, like [Trillian Basic](#).

## The future of IM/voice chat

Techcrunch looks at the big ideas emerging in web instant messaging and the services that exemplify them in this article:

- [The 6 biggest new ideas in chat](#) of 24 November 2006

## Uses of IM/voice chat tools

As has been mentioned in the table above, IM/voice tools permit a whole range of one to one conversations and interactions as well small group work. Take a look at these articles

- This is how one professor used IM: [The professor as instant messenger](#), Kathryn Wymer, The Chronicle of Higher Education, 7 February 2006
- This one looks at the potential of skypecasts for education: [Skypecasts Academic potential](#), Jeff Van Drimmelen, Educause Connect, 13 November 2006

## More free tools

- [Directory of Free E-Learning Tools: Instant messaging and voice chat tools](#)

## More reading

- [How instant messaging works](#), Jeff Tyson, How Stuff works
- [BigBlue.com](#) - Everything about IM.
- [Skypecast FAQ](#), Skype

## 22 Sharing Bookmarks

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There are a number of good reasons for sharing bookmarks in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Store, tag and share course-related bookmarks	Store, tag and share training-related bookmarks	Store, tag and share project/job bookmarks	Store, tag and share personal bookmarks
Digital Libraries course bookmarks del.icio.us	EDTC575 course bookmarks Furl	Linux bookmarks netvouz	France bookmarks del.icio.us

### What is bookmarking sharing?

Bookmarking sharing is also known as **social bookmarking**. This is one of the new type of Web 2.0 applications collectively known as **social software**, that supports a collaborative approach to working and learning.

Most people are familiar with collecting and storing bookmarks in their browsers, known as "Favorites" in Internet Explorer. However, social bookmarking is about collecting and storing bookmarks online and then sharing them with others.

An extra aspect of social bookmarking is that the bookmarks can be **tagged**, this means categorising or describing them using keywords defined by the user, which means that they then become searchable.

Note: tagging is used in the same way in other file sharing tools like **flickr** and **YouTube** to make resources easier to find, see **23 Sharing resources**).

### Using social bookmarking

As can be seen in the table above social bookmarking can be used to create or support a wide range of learning or performance solutions. Here are a couple of articles that look at social bookmarking in specific contexts

- This article, printed in Educause in May 2005 looks at the educational possibilities of social bookmarking: **7 things you should know about social bookmarking**.
- This article, **Social bookmarking: pushing collaboration to the edge** by Shamus McGillicuddy, in CIO.com on 21 June 2006, looks at its use in the corporate world.

Social bookmarking is therefore as much a user/learner/student tool as it is a teacher/trainer/instructor tool.

### Using social bookmarking tools

There are many social bookmarking services about. Probably one of the most well known and well respected is **del.icio.us**. This has spawned a number of resources how to use it, e.g.

- **Del.icio.us Guide for Educators: Part 1 Tools and Tagging**, John Pederson, 21 November 2006.

Other well known social bookmarking tools include **Bookmarklets**, **Spurl**, and **Furl**

## More free tools

- [Directory of Free E-Learning Tools: Social bookmarking tools](#)

## More reading

### Social bookmarking in general

- [Social bookmarking services and tools: the wisdom of crowds that organizes the web](#), Michael Pick, November 2006
- [Intranet 2.0: Blog Networks, Social Bookmarking, Mash-Ups And Wikis](#), Robin Good, 24 June 2006
- [Social bookmarking on a corporate intranet](#), Laurie Damianos, John Griffith, Donna Cuomo, The MITRE Corporation (PDF)
- [We learning: social software and e-learning - Part I](#), Eva Kaplan-Leiserson, Learning Circuits, December 2003
- [We learning: social software and e-learning - Part II](#), Eva Kaplan-Leiserson, Learning Circuits, January 2004
- [Social software in academia](#), Todd Bryant, Educause Quarterly, Vol 29, No2

### Using del.icio.us

- [delicious video tutorial](#), lostremote.com, 17 November 2006
- [Using Delicious in Education](#), John Pederson

## 23 Sharing Resources

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There are a number of resources that can be shared in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Teachers share with students, and students share with peers, all kinds of course resources	Trainers share with learners, and learners share with colleagues, all kinds of training resources:	Colleagues share project/job files and other resources	General and private sharing of professional and personal resources and notes
Course calendar Course files Course notes	Training calendar Training files Training notes	Project calendar Project/team files	Personal calendar Personal files

### Why share?

As we move towards a collaborative world of working and learning, it is now no longer about just acquiring your own resources for your own use but also about sharing them with others. In turn, other individuals will share their resources with you and the result will be that everyone will benefit.

### Share what?

All kinds of resources can be shared with colleagues and co-learners.

- **Bookmarks** - see **22 Sharing bookmarks**
- **Files in all formats**: documents, presentations ([Slideshare](#)), images, photos (e.g. [flickr](#)), audio clips, videos (e.g. [YouTube](#)), multimedia files of all kinds (e.g. [Filemobile](#), [Zapr](#)). Resources can also be tagged and become searchable by others. For more about tagging (see **22 Sharing bookmarks**)
- **Notes** particularly those for educational purposes (e.g. [Notecentric](#) or [NoteMesh](#)) or just keep them to yourself! (e.g. [Yahoo Notepad](#))
- **Other resources** like Calendars ([Google Calendar](#)), calculators ([InstaCalc](#)), maps ([Rrove](#))

All these tools are as much user/learner/student tools as they are a teacher/trainer/ instructor tools.

All the tools in these categories provide dedicated areas for storage and sharing of specific types of resource. However, in many other tools, e.g. those that provide group spaces (see **24 Group spaces**), these tools provide a range of functionality to support sharing of group of project resources.

### More free tools

- [Directory of Free E-Learning Tools: File storage and sharing tools](#)
- [Directory of Free E-Learning Tools: Sharable calendars and other resources](#)
- [Directory of Free E-Learning Tools: Note taking and sharing tools](#)

### More readings

- [Virtual collaboration: engaging learning through technology](#), Tanya Goodwin-Maslach, CLO Magazine, June 2006
- [Using Flickr](#), Preetam Rai, 24 November 2005

## 24 Group Spaces

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There are a number of resources that can be shared in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Store and share class or small group resources and to communicate with other learners	Store and share training or small group resources and to communicate with one another	Store and share project or team resources and to communicate with project and team members	Store and share personal resources and communicate with others in group, e.g. family and friends
Course group space	Training group space	Project space	Family space

### What are group spaces?

These are places that are dedicated to storing **resources** of all kinds for the **group** to share as well as providing facilities for the group to **communicate**.

- **Groups** could be, as identified in the table above, learner cohort groups on a major course, small training groups, project, department or team groups or family, hobby or other small groups.
- **Resources** that the group might want to share include files (of all kinds - documents, spreadsheets, presentations, photos and audio and video clips)
- **Communication** facilities might be asynchronous discussions or live chat.

### Tools to create groups spaces

A number of dedicated tools have been identified on other pages for **resource sharing**, e.g. bookmarks (see **22 Sharing bookmarks**) and other resource like calendars, files, etc (see **23 Sharing resources**), as well as tools to support group **communication**, e.g. discussion forums (see **19 Discussion Forums**), chat rooms (see **20 Chat rooms**) and instant messaging (see **21 Instant messaging**), but here we want to discuss some tools that integrate a number of these functions.

There are a number of free tools that can be used to create all types of group space, e.g. [Google Groups](#) or [Smart Groups](#).

There are, however, also a few that are intended for project groups and project management, e.g. [Voo2doo](#) or [activeCollab](#)

If, on the other hand, you are looking for tools that offer more of the social aspect of groups, then you might want to consider setting up a social networking site or community site (see **27 Managing communities**), and where collaborative content needs to be "managed", content management tools may be required (see **26 Managing content**).

### More free tools

- [Directory of Free E-Learning Tools: Group and project tools](#)

### More reading

- [Distributed team working and collaboration](#), Living in California blog, 10 January 2007



## 25 Managing Courses and Learners

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Managing courses and learners is an activity that commonly takes place in mainly formal learning situations, although can be used to manage access to other informal learning too as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
Manage course resources and student learning	Manage training resources and employee learning	Not generally used to manage informal learning although the use of some informal training materials may be managed	Not generally used to manage informal learning, however, if a course is accessed for personal learning this might be managed
The Learning Place of the New Curiosity Shop	Online Workshops by Thiagi		---

### What is course and learner management?

Course and learner management systems do just that - they manage access to course and training resources as well as monitor user activity. They are known under a number of different names: learning management systems (LMS) is the term used in the corporate world, whilst course management systems (CMS) and virtual learning environments (VLE) are the terms more commonly used in the educational world. For an explanation of the differences, see the article below:

- [Course management systems v Learning management systems](#), Saul Carliner, Learning Circuits, November 2005

As mentioned in **1 Introduction to e-Learning**, a LMS has almost become synonymous with e-learning to the extent that many people believe that you have to have one in place to deliver e-learning. You don't! It is true that these types of systems do have a place, but you should consider carefully whether you need one. So ask yourself the following questions?

- Do you just want a place for people to freely access learning solutions of all types, formal and informal? If so, they why not just catalogue them on your intranet or advertise them on a learning portal.
- Do you want to track how many people have accessed each solution to see how popular they are? Then why not use a hit counter to track launches.
- Do you want to monitor who has looked at which solution, for how long or whether they completed it? If you do, then ask yourself why? Will that tell you how much better the person can now perform on the job because of the learning? If that is the significant factor for you then you will need to monitor the learner's performance on the job in another way. However, if "completion" of a piece of content or acquiring a passing test score is important for compliance or regulatory purposes, then a LMS could help.

### Course management systems

Up to quite recently most of the major providers of both corporate and educational course management systems were commercial companies who charged high licence fees for the use of their systems. Although many open source systems were available their use was confined to a small number of enthusiastic users and organisations. However, one particular system, [Moodle](#), seems to have changed all that. This tool is now being widely used in a large number of corporate and educational establishments.

## Moodle

Moodle offers, amongst other things, the following:

- a variety of course and communication activities Forums, Journals, Quizzes, Resources, Choices, Surveys, Assignments, Chats, Workshops
- site management, user management and course management functionality
- full logging and tracking report for each student
- SCORM/AICC compliant, which means that learning content with compliance can be included in Moodle

If you want to find out more about Moodle, you can take a [Moodle Features Demo course](#) that provides examples of activities and resources

## Alternatives to course management systems

Although course management systems are very functional, many commentators believe that they are essentially E-Learning 1.0 systems. The following article looks at how **social software** provides a E-Learning 2.0 approach to course management.

- [Social software: E-Learning beyond learning management systems](#), Christian Dalsgaard, European Journal of Open, Distance and E-Learning, 12 July 2006

For other learning community tools see **27 Managing Communities**.

## Putting it altogether

Of course, probably the best approach is to put all together all the main elements of delivering and managing a course - content and course management systems as well as social networking. This is what [OpenAcademic](#) offers as it a suite of tools to create an academic website, workspaces, for file sharing, social networking. The suite consists of [Drupal](#), [Moodle](#), [Elgg](#) and [MediaWiki](#).

## More free tools

- [Directory of Free E-Learning Tools: Course and Learning Management tools](#)

## More readings

- [New kind of LMS?](#) Tony Karrer, 11 January 2007
- [CLMS and LCMS demystified](#), Brandon Hall, 2006
- [Wake-up call: Open source LMS](#), Sam S Adkins, Learning Circuits, October 2005
- [ASTD's Field Guide to Learning Management Systems](#), ASTD, 2005. [PDF]

## Moodle

- [Overview of Moodle - Kineo](#)
- [Embedding your YouTube video](#), Rob Englebright, 1 November 2006
- [Moodle E-Learning Course Development](#), William Rice, 2005 [Free chapters and free samples available as PDF]

## 26 Managing Content

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There are a number of opportunities for using content management systems in learning and performance improvement situations as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Manage creation of collaborative course-related content	Manage creation of collaborative training-related content	Manage creation of collaborative project content	Manage creation of collaborative general content
English 420S: Business Writing Purdue University	Ponder Fonder	SANY Sensor Anywhere Project	Snowboard Magazine

### What is a content management system?

A content management system is a system for organising and facilitating the collaborative creation of content and for creating and supporting a community of users. They therefore offer a wide range of functionality which can include:

- **content management** - templates are used to separate content from presentation, which means you can set up the design of the site as you like
- **blog functionality** - allows users to set up blogs and converts these to RSS format
- **discussion forums** - can be set up that use threading of messages
- **collaboration features** - which allow users to work on collaborative projects like a book or manual
- **user management** - users can set themselves up and there is tracking and analysis of user activity and content

### Use of content management systems

As demonstrated in the examples above, content management systems can be used to power a range of different types of activities:

- personal websites
- corporate and organisational intranets and websites
- community sites
- learning community sites

### Content management tools

There are now a large number of open source content management systems available. A couple of the most well known ones are [Drupal](#) and [Plone](#).

### Setting up a content management systems

Although content management systems may sound complex and sophisticated, they are generally fairly easy for non-technical users to add, edit and, manage a website. However all content management systems generally have good documentation to help you with the process, so you shouldn't feel overwhelmed by the prospect.

However, once again you need to be sure that setting up a content management system is the right type of tool for you. Take a look at this article

- [Content management systems - why bother?](#) bytestart.co.uk, 16 February 2006

As we have seen on other pages, there are many other tools that provide different aspects of the functionality to create blogs (see **7 Blogs**), discussion forums (see **19 Discussion Forums**), wikis (see **8 Wikis**) for collaboration, and community sites (see **27 Managing communities**), so you need to be sure that any of these might not be more appropriate to your needs.

### More free tools

- [Directory of Free E-Learning Tools: Content management tools](#)

### More readings

- [Drupalsites.net](#) Websites powered by Drupal

## 27 Managing Communities

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There are a number of opportunities for setting up social networks/communities for learning or performance improvement purposes as shown in the table below.

Formal education	Formal training	Informal training	Informal education
Build a learning community for a course	Build a learning community for a training event	Provide social aspects of working for remote project participants	Social networking with others for personal or professional reasons
<b>Pennster</b> University of Pennsylvania  <b>CampusBug</b>	<b>EducationBridges</b> .net	<b>EducationBridges</b> .net Networking site for teachers	<b>LinkedIn</b> Professional Network

### Why community management?

Socialising is important for humans - we are social beings, and one of the aspects that was missing from early online learning (aka E-Learning 1.0) was the social context. But E-Learning 2.0 is much more about sharing and collaboration and hence we have seen the increase in use of social software - e.g. social bookmarking and also **social networking**.

Social networking sites (SNS) let people to create online connections with others. Communities usually begin as an group individuals who invite others to become part of their own personal networks, and who then invite more people, so that the total number of members and links in the network constantly grows.

The growth of social networking sites has been explosive; there are hundreds of sites around the world and hundreds of millions of users have accounts on SNS-enabled sites.

Probably the most well-know social networking site, particularly in America, and aimed at teenagers is **MySpace**. It now has over 70 million visitors and has become, as one author suggests, "the digital equivalent of hanging out at the mall for today's teens". In addition to basic personal information, members are encouraged to add additional descriptive information about themselves to build their identity. Users can add their favourite music, books, movies, quotes, etc.

Take a look at a [list of notable social networking sites](#) compiled on Wikipedia.

### How to build a learning network

There are a number of free tools available to build the infrastructure for a social network, but one that is intended for the educational environment is **Elgg**. This is available both as downloadable software (for those who want to set it up on an organisation's internal server) but also in a hosted version - **Elgg Spaces**. This is particularly useful for someone who wants to use it for a small group of students or learners. Here are some of the features of Elgg

You can:

- Store your work online and access it from any computer.
- Share your resources with others in your community.
- Connect your users with our social networking component.
- Manage Groups, Clubs, and Projects in controlled, easy-to-use communities.
- Avoid email overflows by hosting discussions on community blogs.
- Customise the look of your site to match your organisation's logos and culture.

## Putting it all together

But, of course, probably the best approach is to put together all the main elements of delivering and managing a course, i.e. content and course management as well as social networking. This is what [OpenAcademic](#) offers as it is a suite of tools to create an academic website, workspaces, for file sharing, social networking. The suite consists of [Drupal](#), [Moodle](#), [Elgg](#) and [MediaWiki](#).

## More free tools

- [Directory of Free E-Learning Tools: Social networking/community tools](#)

## More readings

- [Social networking for businesses and associates](#), Christopher Carfi, 2007
- [Social networks and social services](#), Josef Kolbitsch and Hermann Maurer, 9 December 2006
- [Social networking in business](#), Dave Pollard, 5 December 2006
- [Enabling distributed learning communities via emerging technologies - Part 1](#), Chris Dede, THE Journal, September 2004
- [Enabling distributed learning communities via emerging technologies - Part 2](#), Chris Dede, THE Journal, October 2004

## 28 Accessing Web Content

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Web browsers can be used to access all kinds of formal and informal web-based learning materials.

Formal education	Formal training	Informal training	Informal education
To access academic web-based content in different formats	To access training web-based content in different formats	To access project/team web-based content in different formats	To access personal and professional web-based content in different formats

Obviously a web browser is required to view web pages, but there are now a variety of different web browsers available. [Firefox](#), in particular has become a very popular alternative to Microsoft Internet Explorer. Also [Flock](#), a social web browser, allows for co-browsing.

There are also a number of plug-ins available to view multimedia content like a [Flash player](#), [Quick time player](#) etc, as well as other extensions, e.g. [Zotero](#) to manage and cite research sources and [Googlepedia](#) (an add-on for Firefox) that shows a relevant Wikipedia article alongside the search results.

In addition, we are also seeing a new generation of web browsers - 3D web browsers, which puts the Web into a 3D environment, e.g. [3B](#).

### More free tools

- [Directory of Free E-Learning Tools: Browsers and extensions](#)

### More reading

- [Using Firefox](#), a wikibook, Jan 2007

## 29 Receiving New Content Automatically

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There are a number of tools available to alert you to new content that has been produced for a variety of learning and performance purposes as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
To subscribe to and be alerted to new course content in feeds including podcasts	To subscribe to and be alerted to new training content in feeds including podcasts	To subscribe to and be alerted to job-specific content in feeds including podcasts	To subscribe to and be alerted to new professional and personal content in feeds including podcasts
LIS 757: Social Software and Libraries  The rhetoric of war and peace		Spanish Word of the Day  Podictionary	BBC news feeds  The Notebooks of Leonardo da Vinci

Web browsers allow you to access all sorts of web-based content. However, it's up to you to go to the relevant websites or blogs to find it when you are ready. If you want to see if a website or blog has been updated this can take up precious time keep going back to it.



You might for instance want to know, if you are a student, if a new assignment has been set or if feedback has been given on a previous assignment. You might want to know, as an employee, if there has been an update on a project you are working on.

The solution is for the website or blog to alert you when there is new content for you to see. This way you can be sure you will find out about it pretty much as soon as it has been published. This is done through RSS technology

### RSS

RSS is short for Really Simple Syndication.

Generally most blogs offer an RSS feed, but other websites, especially news sites, also have them too, when sometimes they are just referred to as a news feed

You can usually tell if they have a RSS feed because you will see one of these icons  or , or even a piece of text like "subscribe here".

### Reading RSS feeds

The feed from a blog or website is generated in XML format, so what you need is a tool to read it but also one that manages and monitors all the feeds you have subscribed to.

RSS aggregators/readers are of two main types

- hosted
- installable on a computer

Of the hosted variety, **Bloglines** is very well known and regarded. There are also a number of advantages with Bloglines.



1. You can download the Bloglines Notifier which sits on your taskbar and monitors the feeds coming into your account, and notifying you of any new feeds. At which point you can then access your account to read them.
2. You can add a bookmarklet to your browser to Subscribe with Bloglines automatically. This is especially useful if it is not obvious whether there is an RSS feed at the site as it will tell you if it can't find one!

If you are looking for a guide to setting up Bloglines, then here is a useful tutorial:


- [How to set up Bloglines as your web aggregator](#), About:Web logs

Another extremely popular, hosted RSS reader is [Google Reader](#).

Whilst a popular aggregator to download is [Blogbridge](#). Here is a [Blogbridge screencast](#) by Darcy Norman that explains how to use it.

### Reading RSS feeds in your browser

As RSS technology is becoming mainstream, it is now becoming embedded within browser technology.

The latest version of Internet Explorer ([IE 7](#)) makes reading and subscribing to RSS feeds very easy. When there is an RSS feed on a page, the  icon appears on the IE toolbar. You simply click on the icon and the feed (in a readable form) appears in the browser window.

On the right hand side of the window, select "View feed properties" to define the update schedule and also to automatically download attached files (e.g. podcasts). Your selected feeds appear in your Favorites list.

### More free tools

- [Directory of Free E-Learning Tools: RSS readers/aggregators](#)
- [Directory of Free E-Learning Tools: Browsers and extensions](#)

### More reading

- [Untangle the World Wide Web with RSS](#), Reuters, 28 December 2006
- [RSS 101](#), Alex Barnett, 10 February 2005
- [RSS: A learning technology](#), Eva Kaplan-Leiserson, Learning Circuits, May 2004
- [RSS: A Quick Start Guide for Educators](#), From Will Richardson, [www.weblogg-ed.com](#)
- [RSS Ideas for educators](#), By Quentin D'Souza From [TeachingHacks.com](#)
- [RSS: The next killer app for education](#), Mary Harrsch, originally in the technology source, July/August 2003

## 30 Aggregating Content on the Desktop

There are a number of reasons why you might want to aggregate content on the desktop for learning or performance improvement purposes as shown in the table below.

Formal education	Formal training	Informal training	Informal education
To create a personal start page with access to all course content, resources, feeds, etc	To create a personal start page with access to all training content, resources, feeds, etc	To create a personal start page with access to all job-related content, resources, feeds, etc	To create a personal start page with access to all professional and/or personal content, resources feeds, etc

### Why aggregate content?

If you want to integrate access to a number of resources from one page - like your RSS feeds, calendars, email, etc then a personalised home page or start page is what you need to set up. Take a look at the example below.



This example was built using [Google's personalised home page](#) functionality. You need to log into your Google account and then you can select the items that you want to appear on the home page, e.g. your Google calendar, Google Mail, RSS newsfeeds and so on. There are also other tabbed areas where you can other personalised content.

There are a number of other free tools that let you create a start page, these are either downloadable software to install on your computer, or hosted services like Google.

Two other favourite hosted start page services are [Netvibes](#) and [Pageflakes](#), and there are some excellent resources to show you how to get started with them and how they are being used in education and training (see the More reading section below).

### More free tools

- [Directory of Free E-Learning Tools: Start page tools](#)

## More reading

- [The basics: your office on the Web](#), twopointtouch, 15 December 2006

## Netvibes

- [Netvibes tutorial](#), Rob Masefield
- [Creating start page using Netvibes](#), edu.blogs.com, 23 November 2006

## Pageflakes

- [Using Page Flakes as a student portal](#), weblogg-ed.com, 21 November 2006

## 31 Being Productive

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There are a number of tools to support personal productivity for both tutors/teachers/ instructors and learners/employees/users in order to support the activities as shown in the table below.

Formal education	Formal training	Informal training	Informal education
To use a computer and the Web more productively for formal education purposes	To use a computer and the Web more productively for formal training purposes	To use a computer and the Web more productively for job and performance improvement purposes	To use a computer and the Web more productively for informal learning purposes

### What is personal productivity?

Personal productivity is about being more effective with your time, your communications and your resources in particular with regard to your use of your computer and the Web. Although organisations can provide support with improving job performance and productivity, personal productivity is an activity that an individual will have to take on him/herself.

Many of the pages in this Guide have discussed tools that are useful to support personal productivity, e.g.

- tools to create documents (see **4 Textual documents**) and presentations (see **9 Presentations**)
- tools for storing and sharing bookmarks (see **22 Sharing bookmarks**) and resources (files, notes, etc) (see **23 Sharing resources**) with others
- tools to communicate in real time with people using voice or text chat (see **21 Instant messaging and voice chat**)
- tools for effective browsing on the Web (see **28 Accessing web content**)
- tools for effortlessly receiving new content (see **29 Receiving new content automatically**)
- tools for aggregating useful resources on the desktop (See **30 Aggregating content on the desktop**)

But there are many other tools that can also help to make you more efficient in your work. These are tools like:

- personal and to-do list organisers, like [iPrioritize](#) and [Remember the milk!](#)
- clipboards like [cl1p.net](#)
- your own search engine, like [Rollyo](#)
- file converters like [Zamzar](#); and
- being able to access your computer from anywhere, like [Avvenu](#)

### More free tools

- [Directory of Free E-Learning Tools: Personal productivity tools](#)

### More reading

- [Lifehacker: 88 Tech Tricks to Turbocharge your day](#), Lifehacker, 2006

## 32 Using a Mobile Device

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Mobile devices can be used for a variety of learning purposes as shown in the examples in the table below.

Formal education	Formal training	Informal training	Informal education
Use mobile devices for formal learning purposes	Use mobile devices for formal training purposes	Use mobile devices for job-performance improvement purposes	Use mobile devices for personal purposes
Course readers Coursecasts Communication with other students	Training podcasts Tutorials Communication with peers	Podcasts Daily SMS Product reference guides	Podcasts Moblogging Instant messaging and text chatting

### What is mobile learning?

Mobile learning, or m-learning, can be broadly defined as the use of mobile devices like PDAs (Pocket PCs and Palms), iPods (and other MP3 players), as well as mobile phones for learning purposes. These devices are now becoming ubiquitous, which means they are always to hand (unlike a computer) and can therefore be used for a variety of functions - from communicating with others (e.g. making voice calls and text messaging) to listening to audio content and viewing web-based content.

As the technologies converge new devices will be able to offer all functionality, but currently each of these different devices will have their pros and cons in terms of the types of learning they are best suited for.

In many of the other pages of this Guide, learning and performance solutions have been described that can be used for mobile learning purposes, e.g.

- Word documents, PDFs and e-books can be read (see **4** and **5**)
- Web pages, blogs and wikis can be accessed - and moblogging (blogging from a mobile device) can be achieved (See **6**, **7** and **8**)
- Web-based tutorials can be studied provided they are designed in small, digestible chunks
- Podcasts can be listened to (see **10**)
- Courses can be delivered by SMS (see **18**)
- Instant messages can be sent and received (see **21**)
- RSS feeds can be read (see **29**)

### Who is mobile learning best for?

Mobile learning suits some types of individuals more than others. It is obviously much more useful for individuals - students or employees - who are on the move quite a bit, e.g. salesforce in an organisation than it is for desk-bound employees. Take a look at this article

- [Optimising your sales workforce through mobile learning](#), Christopher von Koschembahr, Learning Circuits, April 2005

### Supporting the mobile learner

Additionally, for a mobile learner, there are a number of other tools that can support the user, e.g.

- browsers specifically for mobile phones, e.g. [Opera Mobile Browser](#)
- accessing del.icio.us bookmarks from the mobile device, e.g. [Mobilicio.us](#)
- RSS reader for PDAs, [Pocket RSS](#)
- e-mail, blogging, Web search, maps, and driving directions for your phone, e.g. [Windows Live Mobile](#)

### More free tools

- [Directory of Free E-Learning Tools: Tools for mobile phones, iPods and PDAs](#)

### More reading

- [20 ideas: getting students to use their mobile phones as learning tools](#), Doug Belshaw, September 2006
- [Mobile technologies and learning](#), Learning and skills agency, 2005 [PDF]
- [What can you learn from a cell phone? Almost anything!](#), Marc Prensky, Innovate, June/July 2005
- [m-Learning website](#)