LONG LEARN ACTIVE LEARNING MATERIALS

FOR CONTINUING PROFESSIONAL AND PERSONAL DEVELOPMENT IN

LOCAL AND REGIONAL GOVERNMENT

LOCAL LEARNING PROVIDERS

AND

EVERYONE AND EVERY ORGANISATION WITH AN INTEREST IN CREATING STABLE, VIBRANT AND PROSPEROUS LEARNING CITIES, TOWNS AND REGIONS

Chapter 2 Session 6:

Smart Cities, Wired Cities, Slow Cities: divergent ingredients of the same cake.

,The wired and cabled city is now a fact on every continent. But that is just the tip of the iceberg. The proliferation of available cyberspace will lead to the possibility of neighbourhood channels offering information to the citizens of a single housing estate or a small ward. Schools will be able to broadcast to people in their catchment area, perhaps transmitting the school play, providing essential information to parents, even involving children who are unable to attend, the opportunity to receive lessons - not at present a popular idea among the young. They will be able to involve parents, advertise the school fete, explain their philosophy. The possibilities are endless'.

From 'Learning Cities. Learning Regions, Learning Communities – Lifelong Learning and Local Government' (Norman Longworth)

Chapter 2 Session 6:

Smart Cities, Wired Cities, Slow Cities: divergent ingredients of the same cake.

Session outline: The conjunction of information, communications and broadcasting technologies has led to an exciting number of new possibilities for cities and regions. This session discusses some of these and enjoins the learner in discussing the pros and cons of increasing technology use. It also presents an alternative view in the form of 'slow cities.' As always it works from the existing information and experience of the learner and leads to increased knowledge and insight.

Guidelines for using this Active Learning session

Goals

The creation of learning cities and regions is in all our interests. It promotes social stability, encourages wealth creation, and enables citizens to fulfil their potential, their dreams and their ambitions. It is a survival strategy for our future, and that of our children and grandchildren. But it won't happen unless all of us play our part in making it so. It won't be a simple transition process, to be put into practice by someone else in the local authority. That means that we all, especially local government managers, professionals and staff, need to know and understand more about what it is, why it's important and what the major issues and opportunities are. There are many of them. These sessions have been written to enable each of us to increase our understanding and knowledge of those issues and opportunities. Each one, and there are 57 of them, takes a different theme and offers the learner new insights.

Learning approach

This is an Active Learning session. Lifelong Learning has taught us that people learn best when they are actively involved in the learning. We have therefore given the ownership of the learning over to you, the learner. As well as presenting new concepts in the assignments and exercises, , we draw upon your experience, creativity, imagination and knowledge so that you can better understand the subject matter, and will be better able and more motivated to act upon it. You may, or may not, have a learning leader to help organise the groups, and to bring several learners together into discussion groups and sessions. That will certainly make it easier. We all have different learning styles – but we can also all learn from each other. That is why this session, like all the others, recommends a mixture of individual, small group and large group work, so that ideas and experiences and understandings can be bounced around people. Above all you are urged to make this an enjoyable experience. Learning can be fun. It's up to you to make it so.

Learning Organisation

You will find that the session is divided into 2 main parts

- ✓ **The Learning Space:** A set of assignments that will unlock the brain and involve learners in practical discussions and exercises leading to a greater understanding of the issue
- ✓ **The Learning Kitbag:** A set of source learning materials that provide additional information, charts, diagrams, case studies etc to stimulate further insights.

While each session could be used individually as a self-learning module, it is preferable if there is a learning leader to organise small and large group discussions and to act as a focal point. This can be a departmental manager, a staff member appointed to perform that task, or a professional educator from inside or outside of the organisation.

Assignments may be studied on site, or set as preparation for group discussions in the workplace or at a learning provider.

The whole course can be incorporated into a continuous professional development programme in the workplace, or taught separately at a school, college, community centre or university. It takes its provenance, and its inspiration, from the book:

Learning Cities, Learning Regions, Learning Communities – Lifelong Learning and Local Government By Norman Longworth, published by Taylor and Francis ISBN 10 0 415 37175 9

Learners taking the course are recommended to obtain this book either from Amazon.com or from the publishers at http://www.taylorandfrancis.co.uk/shopping cart/search/search.asp?search=longworth

Target Audiences

The session will be suitable for those who wish to improve their understanding of the session title's theme, in order to help influence the city, town or region's response to the realities of the 21st century. This includes:

- ➤ Elected representatives and Mayoral staff
- Managers, Professionals and staff from all departments in local government as part of a continuous development programme
- ➤ Community and Voluntary organisation leaders
- ➤ Educators at all levels in local and regional stakeholder organisations, including schools, universities, colleges and workplaces
- ➤ Industrialists and Business people as stakeholders in the local authority
- ➤ All Citizens with an interest in the development of their community
- > Students in universities, adult education institutions and teacher training establishments

Further Reading

Learning Leaders wishing to update themselves on the subject matter of this module will find the following additional references useful.

- ➤ 'Lifelong Learning in Action Transforming 21st century Education' by Longworth, (Taylor and Francis, Abingdon) http://www.taylorandfrancis.co.uk/shopping cart/search/search.asp?search=longworth
- ➤ 'The Local and Regional Dimension of Lifelong Learning 'EC Policy Document found on http://europa.eu.int/comm/education/poledu/tels.pdf

Ideas for treatment particular to this session: For seminars and courses with several participants it is suggested that assignment 1 is completed as an exercise for individuals with the answers debated in open session afterwards, facilitated by a learning leader. Assignments 3 and 4 may completed in small groups of 2 or 3 people, again with the results discussed after completion. Assignment 7 is again an individual task. Assignment 9 depends on the number of computers available but the results should be discussed in plenary session after completion. Assignment 10 is an opportunity to identify other topics of interest to the course/workshop/seminar members and to develop individualised courses for each. The last assignment should provide the feedback that will enable you to improve the session next time round.

For *self-learning individuals* all assignments will be individual efforts but try to find someone with whom you can discuss your answers and opinions either by email or face to face. In this way you can enrich the learning experience by experiencing other viewpoints.

The Learning Space

Assignment 0: These learning materials derive from, and extend, the concepts and ideas in 'Learning Cities, Learning Regions, Learning Communities.' Reading pages 37 to 42 of this valuable book before carrying out these assignments would provide an excellent introduction to the session, and strengthen learning.

Assignment 1: In the boxes below name 5 changes that have taken, or will take place in your life in the next few years, because of the use of technology and networks. Use the quotations on Actionsheet 1 of the learning kitbag below to help you.

A. In your home
a)
b)
c)
d)
e)
B. In your community
a)
b)
c)
d)
e)
C. In your personal life
a)
b)
c)
d)
e)

Assignment 2: Discuss your answers with others

Assignment 3: Actionsheet 2A in the Learning Kitbag below is an account of the way education and learning will change as a result of the application of new technologies. Read it and then answer the questions on Actionsheet 2B.

Assignment 4: The smart city programme for New York city envisages the following outcomes:

'As a result the education zone becomes the education program of the city – the sum of the educational resources the city avails to its children, to its educators and to its citizens in general.' The advantages of the changes in learning methodology are:

1	Multiple learning styles can be respected		
2	Cultural diversity becomes an intellectual asset when people learn from each other		
3	Learning can take place by inquiry methods rather than didactically		
4	Learning modules can be downloaded by the learner on demand		
5	Assessment will be continuous through portfolio construction by learners		
6	Educators will change their methods to put powerful questions to students, thereby		
	activating and directing their curiosity, leading them to exploit their opportunities for		
	access		

A. In the last column put a figure which describes how many years will pass before technology in the schools is used in this way in your city or region.

B. What are the 5 main barriers to this happening?

1.
2.
3.
4.
<u>5.</u>
Assignment 5: Discuss your answers with others.
Assignment 6 : Actionsheet 3 in the Learning Kitbag below is a list of the actions that Dublin city intends to take in order to become an e-city. Complete the priority exercise at the top. In the blank spaces at the end insert other high-priority uses of technology within your own city plan.
Assignment 7: Please give your opinion below.
A. Dublin wishes to become a world-class e-city. What do you understand by that term?
B. What do you consider to be the 3 main advantages of the use of technology in the city and why? a)
b)
c). why?
C. What in your opinion are the 5 major priorities for your city in the area of technology development? a)
b)
c)
d) e)
Assignment 8 : Discuss the results of assignments 6 and 7 with others
Assignment 9 : Use the technology to find out about 'slow cities' on the web and write your impressions on the lines below: (You may also wish to look up Curitiba in Brazil for a contrast.)
A. Would you rather live in an e-city or a slow city? Say why.

Assignment 10: This completes this session but not hopefully your need for knowledge on this important subject. You are invited to complete the diagram on the next page by ticking the relevant box.

LEARNING CITIES AND REGIONS FOR THE FUTURE - YOUR LEVEL OF KNOWLEDGE

		High	Enough to get by	Not enough	None	Session
1	Consultation methods and levels					7.1, 7.2
2	Characteristics of a Learning Organisation					2.3
3	Your city as a learning organisation					2.4
4	Skills and competences for learning cities and regions					1.6
5	The city as an ideopolis					1.5
6	Learning Communities in all their senses					2.5
7	Smart cities, wired cities, slow cities					2.6
8	Learning Festivals for developing a learning culture					3.3
9	Learning Charters for demonstrating a city's commitment:					3.2
10	Leadership in the Learning City/Region:					3.4
11	Tools for measuring city and region performance					3.1,4.1,4.2,
						4.3,4.4,4.5
12	Lifelong Learning as wealth creator					5.3, 1.5,2.3
13	Tools for activating learners – Personal Learning Audits					5.4,5.5,5.6, 5.7,5.8,5.9
14	Stakeholders in the Learning City/Region – Who? What?					6.1
14	Schools as Stakeholders in community, city and region					6.2, 8.4
15	Higher Education as a stakeholder in community, city and region					6.3
16	Business and Industry as stakeholders in community, city and region					6.4
17	Adult Education Colleges as stakeholders in the city					6.5, 8.5
18	Bringing Museums, Libraries, Archives and Galleries					6.6
	into the learning world					
19	Family Learning					6.7
20	The power of partnerships					6.8
21	Using Technology in the learning city					7.3
22	Active citizenship and volunteering in the learning city					7.4
23	Mentoring in the learning city and region					7.5
24	Resources for the Learning City and region					7.6
25	Global roles and responsibilities for learning cities and regions					8.1
26	Internationalising Learning City Networks					8.2, 8.3
27	International projects as learning city stimulators					8.4, 8.5
28	Two-way profiting from international cooperation					8.6
29	Organisational issues in the learning city and region					9.2
30	Enabling issues in the learning city and region					9.3
31	Pedagogical issues for learning cities and regions					9.4
32	Practical Actions to become a learning city					9.1, 1.4
33	Learning Cities for Elected Representatives (Councillors					4.6
34	Individuals as learners					5.1,5.2,6.7
35	Change, society and the city/region					1.1, 1.2
36	Learning City Domains					1.3
37	Some Research results on Learning Cities and Regions					4.2,4.3, 4.4
3.8	Towards true Learning Societies					2.2
3.9	Defining Learning Cities and Regions					2.1

All sessions shown in the last column follow the progress of the book 'Learning Cities, Learning Regions, Learning Communities – Lifelong Learning and Local Government' by Norman Longworth (Taylor and Francis – www.tandf.co.uk/books/) ISBN 100-415-37175-9, and add new dimensions. They are downloadable from www.longlearn.org.uk

Assignment 11 : On the lines below please put your personal reactions to working on this session, based on how much you have learned, how much you have worked creatively and how your ideas have developed as a result.

The

LEARNING

KITBAG

Actionsheet 1 Wired and Cabled cities – the possibilities

The wired and cabled city is now a fact on every continent. But that is just the tip of the iceberg. The proliferation of available cyberspace will lead to the possibility of neighbourhood channels offering information to the citizens of a single housing estate or a small ward. Schools will be able to broadcast to people in their catchment area, perhaps transmitting the school play, providing essential information to parents, even involving children who are unable to attend, the opportunity to receive lessons - not at present a popular idea among the young. They will be able to involve parents, advertise the school fete, explain their philosophy.

The possibilities are endless. Special interest groups - environmentalists, ornithologists, sports clubs, religious organizations, might have their own, or a shared, channel to involve people in the care of their own environment or the development of a new hobby. The opportunities for feedback are also in place, making these a two-way communications experience. Watchdog bodies may be needed to avoid abuse, but the technology is there to be used. Add this to the further development of internet facilities, available to every home and the sheer power of technology to change and expand peoples' perceptions, activities, lifestyles, access to learning soon into the new millennium is obvious. It adds flexibility, versatility and a new mental minefield of potential.' (Longworth – Lifelong Learning in Action)

every classroom and office in the three-school, 919-student school district is equipped with a TV monitor and wired into a fibre-optic network. New technologies have opened up the world to students in the school. Teachers can use a simple channel changer in their classrooms to display everything from newspaper articles and educational graphics to films and, in the case of Westfield, live programming via satellite. Much of the material is stored in a single technology distribution center serving the entire school system. Teachers in their classrooms electronically check out of the library-like center the material they want to use, and it is "delivered" to their rooms with the push of a button. The technology also allows Westfield teachers to create their own multimedia materials.' (Ray Steele: Westfield School)

Actionsheet 2A - Technology and Learning - The genie is out of the bottle .

The emergence of powerful new information and communication technologies based on the use of computers and multimedia, digital compression and satellites, fibre-optics and wireless networks, artificial intelligence, and virtual reality, vastly expand options for engaging individuals, communities and society in general in teaching, learning and participating.

The possibilities for using different combinations of technology to directly facilitate learning processes and to enhance the capacity of existing learning environments, while creating new ones, are huge. Technology makes it potentially possible to link diverse communities; to present a more sophisticated view of the world to learners; to provide local educational services tailored to the needs of each individual and group; to switch reluctant learners back into the mainstream of learning; and a whole host more benefits.

The new breed of learning communities, learning cities and learning regions comprise organisations of different types – schools, adult colleges, universities, companies, churches etc – and people of different ages and backgrounds. They challenge us to see the world of education and training in a different way. They link learning to the broader issues and trends in today's world such as the growth of informal economies, the paradox of global and local development, rapid and unstoppable change, new social relationships, environment and conservation and social justice and poverty.

The world of learning is currently undergoing a process of enormous challenge and change. The traditional view of the educator as purveyor, and the learner as receiver, still holds fast in many parts of the world, but new research into how people really learn is breaking down the barriers. Fixed notions of intelligence quotients and examinations in particular places at particular times for particular qualifications are being replaced by more flexible ideas such as lifelong learning for all, team learning, multiple intelligences, personal skills development, examination when ready, trans-disciplinarity and the belief that learning is the most basic human competence, which everyone can, and does, carry out.

Technology is helping that process along – learning is based on needs and demands, oriented towards individuals, experiential and linked to the growth of community. Flexibility, adaptability, versatility are the watchwords for societies and systems in transformation. New learning communities accept this as central to the development of people who respect each other, who can express themselves and who can reflect upon their own contribution to the improvement of themselves and society as a whole.

Learning communities have, of course, existed for a long time, whether or not we recognised them as such. What is new is the movement towards networking made more effective by the introduction of email and the internet. They embrace the formal, non-formal and informal aspects of learning in equal measure and recognise that education is a corporate act carried out by individuals. Technology plays a critical role in this process by allowing the sharing of ideas and information and encouraging interactivity. It provides support and motivation for learners. It promotes communication in a different way than in the past. It enables us to construct, collect, analyse, disseminate and share information in different ways. It allows us to build both distributed and centralised information networks.

In the learning process, technology provides the flexibility to cater for different learning styles and needs. It is able to help people plan their own educational futures and to reflect on their individual pathways to success. It opens up learning to any time and any place. It can support the development of local knowledge systems and cultural diversity.

As a driver for change, technology can promote the questioning of existing procedures, strategies and institutions. Ideas will be dealt with differently. It can enable non-linear thinking and action. It redefines the traditional role of the teacher who becomes the guide at the side rather than the sage on the stage. Other relationships are also affected such as those based upon gender, wealth and family. It helps with participation in decision-making. People will change their perceptions about themselves and others and their attitudes to conflict. But all of this will depend upon the application of innovative ways of using the technology to release the creative energies that led to their development in the first place.

Norman Longworth

Actionsheet 2B

1. Please write down ten changes in education envisaged by the author as a result of using the new technologies
1.
2. 3.
4.
5.
6. 7.
8.
9.
2. What do you understand by the following terms used in the paper?
2.1 Multimedia
2.2 Digital Compression
2.3 Virtual Reality
2.4 Informal economies
2.5 Paradox of global and local development
2.6 Multiple Intelligences
2.7 Trans-disciplinarity
2.8 Distributed networks
2.9 Guide at the side
3. Write down below your personal view of the advantages and disadvantages of using technology for learning. Aim for 4 of each.
3.1 Advantages
3.2 Disadvantages

Actionsheet 3

The following are the actions suggested in its strategy to convert Dublin into a connected and informed e-city using technology. In the boxes on the right say whether each is a high, low or medium priority in the strategy for your city or region . H= high (already in process), M= medium (May be implemented in next 3 years) L= Low – no plans to implement it just yet.

		Н	M	L
1	Develop, within the city website, interactive themed 'market-places' in which people will			
	exchange knowledge, resources, products and services			
2	Develop a more "customer focused" service delivery require greater transparency and easeof			
	access to information			
3	Use the city web-site to develop a single focal point for information exchange in the City			
4	Use the city web-site to integrate service delivery analysis on the basis of pooled information			
	between departments			
5	Use the city web-site to strengthen communication within and between the voluntary and			
	statutory sectors			
6	Use the city web-site to develop an independent, not-for-profit, sustainable community media			
	sector addressing community of interest and place			
7	Use the city web-site to provide 'bottom-up' independent information to complement therange			
	of information available from commercial and state services			
8	Use the city web-site to develop and project alternative views and information			
9	Use the city web-site to enhance diversity at all levels			
10	Use the city web-site to give access to socially excluded groups and encompass			
	cultural diversity.			
11	Empower all people in the City to access and utilize information to improve their quality of life.			
12	Ensure all citizens have the competencies to work and participate in an increasingly			
	technological "information" society			
13	Develop leadership and the encourage initiatives that can ensure that the city/region becomes a			
	city Internationally renowned as an e-city/region of excellence			
14	Develop as an e-city wherein all citizens can access and utilise ICT within homes, businesses,			
	voluntary organisations and state services			
15	Establish a Social Research Function using the web and third level institutions to undertake			
	research and analysis of the social, economic and cultural reality in the City.			
16	Enable service providers to effectively integrate their service delivery both at city and			
	neighbourhood level			
17	Develop and Provide a Consultation Resource Pack online through the city web-site			
18	Develop Community Information Centres with computers to disseminate information			
	and allow citizens to use			
19	Maintain up to date information on waiting times to be expected, numbers on waiting lists etc.			
	in respect of the various services such as health, local authority and telecommunications.			<u> </u>
	Establish linked community resource centres to link people and organisations			
21	Facilitate consultation through the use of technology			
22				
23	Monitor the implementation of strategy through technology			
24				
25	Develop full community participation in ICT			
26	Conduct and maintain an audit of service provision and statistical data in the City			
27	Develop and maintain a comprehensive database of community and statutory activity within the City.			
28	Develop a comprehensive range of interactive market places where people can 'do business',			
	e.g., childcare, learning, knowledge-sharing etc.			
29	Develop and resource an independent not-for-profit Community TV Channel			
30	Through the Community Media Forum increase the profile and competencies of the sector,			
	highlighting the benefits to a range of communities and communities of interest.			
31	Develop and deliver a 'Dublin at talk and play' festival each year to engage communities in			
	media and ICT related activities.			
32	Develop and properly resource Community Media facilities and expertise at key locations in the			

	City, so that the communities can generate and create information as well as have accessto it.			
33	Network and properly resource Community Radio in the City.	+		
34	Support Community Media through the identification of dedicated core funding for projects			
35.	Facilitate on line access for community and voluntary groups to the internet and digital media			
35.	through the city web-site			
		\vdash		
36	Encourage the development of city focused programming within national print, radio and TV			
	organisations	\vdash		
37				
	media infrastructure as well as the energy requirements to sustain them	\vdash		
38	Develop a 'Contract for the Information Age' between business, the state and communities			
	enabling the provision of appropriate infrastructure, skills and opportunities			
39				
	based interaction then progress onto computer based as the saturation levels and competencies			
40	increase	\vdash	_	
40	Facilitate the establishment of new building regulations where high standards of ICT provision			
41	are introduced as standard. Houses to be designed with teleworking in mind	\vdash		
41	Develop a Quality Mark (e-Q Mark) for the 'e-readiness' of buildings, community and			
42	publicfacilities Engage all learning providers to focus on developing ICT skills of people in the city.	++		
42	Encourage all learning providers to focus on developing ICT skills of people in the city	+-+		
43	Encourage all learning providers to focus on developing information navigation skills	+-+	-	
44	Encourage all learning providers to focus on using IT in delivery of services in order to			
45	maximise the number of people participating in life-long learning opportunities	++		
45	Place particular focus on ensuring ICT access and skills in disadvantaged areas and schools	++		
46	Increase involvement of the Community and Voluntary Sector in IT by facilitating them			
47	todevelop web pages on the city web-site and providing email to citizens Develop community based skill interventions for key groups such as older people and	\vdash		
	ethnic minorities			
48	Through outreach programmes assess, quantify and supply necessary technology to assist			
	people with special needs to use ICT to its full potential	$\perp \perp$		
49	Establish a Dublin City network of Citizen Information Centres (CICs)	$\perp \perp$		
50	Establish a Connected and Informed Commission that would Provide leadership			
	in e-city development	$\sqcup \bot$		
51	Address issues that prevent the development of e-business, e-commerce and e-public			
	services in the City.	\vdash		
52	Develop a network of socially committed ICT Initiatives with a common protocol of			
	co-operation Co-operation	++		
53	Ensure that schools are well-equipped with up to date computer and communications			
	Enguipment	++		
54	Ensure that all teachers are technology-literate through in-service courses	++		
55	Ensure that all children know how to use computers and the internet for educational purposes	++		
56				
57	Establish and resource a distance education delivery facility for all education establishments	++		
58	Establish and resource an educational software development group Develop learning links between all school students and students from other	++		
59	Develop learning links between all school students and students from other			
60	cultures and countries	++		
60		++		
		++		
62 63		++	+	
US		\bot		

Where to find sessions on topics

All sessions follow the progress of the book 'Learning Cities, Learning Regions, Learning Communities – Lifelong Learning and Local Government' by Norman Longworth (Taylor and Francis – www.tandf.co.uk/books/) ISBN 10 0-415-37175-9

	Торіс	Session(s)
1	Consultation methods and levels	7.1, 7.2
2	Characteristics of a Learning Organisation	2.3
3	Your city as a learning organisation	2.4
4	Skills and competences for the 21 st century	1.6
5	The city as an ideopolis	1.7
6	Learning Communities in all their senses	2.5
7	Smart cities, wired cities, slow cities	2.6
8	Learning Festivals for developing a learning culture	3.3
9	Learning Charters for demonstrating a city's commitment:	3.2
10	Leadership in the Learning City/Region:	3.4
11	Tools for measuring city/region performance	4.1, 4.2, 4.3, 4.4, 4,5
12	Lifelong Learning as wealth creator	5.3, 1,5, 2,3
13	Tools for activating learners – Personal Learning Audits	5.4, 5.5, 5.6, 5.7, 5.8, 5.9
14	Schools as Stakeholders in community, city and region	6.2, 8.4
15	Higher Education as a stakeholder in community, city and region	6.3
16	Business and Industry as stakeholders in community, city and region	6.4
17	Adult Education Colleges as stakeholders	6.5, 8.5
18	Bringing Museums, Libraries, Archives and Galleries into the	6.6
	learning world	
19	Family Learning	6.7
20	The power of partnerships in the city and region	6.8
21	Using Technology in the learning city	7.3
22	Active citizenship and volunteering in the learning city	7.4
23	Mentoring in the learning city	7.5
24	Resources for the Learning City	7.6
25	Global roles and responsibilities for learning cities and regions	8.1
26	Internationalising Learning City Networks	8.2, 8.3
27	International projects as learning city stimulators (schools, adults)	8.4, 8.5
278	Two-way profiting from international cooperation	8.6
289	Organisational issues in the learning city and region	9.2
309	Enabling issues in the learning city and region	9.3
31	Pedagogical issues for learning cities and regions	9.4
32	Practical Actions to become a learning city	9.1, 1,4
33	Learning Cities for Elected Representatives and Councillors	4.6
34	Individuals as learners	5.1, 5.2, 6,7
35	Change, society and the city/region	1.1, 1.2,
36	Learning City Domains	1.3
37	Some Research results on Learning Cities and Regions	4.2, 4.3, 4.4

The sessions themselves are downloadable from the learning materials section of the longlearn website ${\bf r}$

www.longlearn.org.uk