Module 4 Topic 4 Picking up a few pieces

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Topic Description:

This topic covers 3 aspects of the lifelong learning school in a learning city that have not so far been dealt with. The first concerns the way in which the school markets itself both internally and to the outside world. A school which is aware of its role and responsibilities in the community will ensure that its image in that community is positive and outward-looking. Similarly it will try to build a positive and outward-looking learning culture within its own internal communication system, much in the same way that multi-national industry tries to create a company culture of mutual respect that defines its relationship with the people who work for it and the organisations which are its clientele.

Following from this there is a lesson on the important subject of technology and its use within the school. Awareness of the value of the use of the information and communications technologies in schools has risen dramatically together with the rise in ownership of desktop and portable computers in society as a whole. It is an argument which still meets pockets of resistance, but one which has been won by the power of the technology itself. E-learning is an accepted fact of life at adult level and is becoming more and more acceptable in the schools. The questions now being asked are how they can be used to the best advantage and how schools can obtain more of them. As Longworth and Davies suggested in 'Lifelong Learning' back in 1994 'the potential impact of the personal computer on learning styles is akin to that of the discovery of the wheel or of fire on social habits. Personal computers, in their role of extenders of the human intellect, can act as tools to enhance the natural creativity of children, not least because their use will become pervasive as the technology becomes cheaper, more miniaturized, and increasingly accessible. The task then becomes one of harnessing and applying that creativity in a structured and disciplined way.'

More recently there have been great advances in the use of computers in schools, though these have not always been associated with creative application. Word-processors and even spreadsheets are coming into everyday educational use; not only by administrative staff and teachers for lesson planning, but also by the children themselves to improve their story-writing, presentation and mathematical skills. Educational software, particularly that designed for very young children, is a deal more sophisticated than it used to be. Programs featuring children's television favourites will subtly introduce number theory or literacy concepts into play activities and make formal school lessons more active and interactive. There is still scope for making much greater use of the power of multimedia to combine text, sound, graphics and motion picture into genuinely interactive educational experiences, though this would entail much more equipment than is common in the ordinary school, and teachers trained to use them effectively. Hence the many uses of the technology is an important subject for teachers in the present and will become even more so in the future.

Lastly, the social curriculum is also enhanced by the way in which the school encourages a wider outlook on the world through extra-curricular activities. The school with a vibrant and thriving orchestra and/or band will enhance the musical potential of its children for life. The school with a solid sports and gymnastic agenda will produce fewer couch potatoes than the one without. The school which organizes a play, a musical or a drama event and involves as many children as possible will provide a lifetime access to, and love for, theatre and music culture. The school which offers pupils a variety of lunchtime and after-school clubs and societies will expand horizons and open up a lifetime of interesting hobbies and passions. The school which provides the opportunity to travel – to another country, another environment or a study

centre will widen the horizons of its children for life. It also tends to be the sort of school which gains the long term affections of its staff and children. When one looks back on one's schooldays, lessons and examination slogs are not the memorable highlights of a school career. The topic therefore ends by exploring the many opportunities for extra-curricular activities which have the most long-lasting effect on the fulfilment of human potential.

Topic Objectives

The objectives of this topic are:

a) To demonstrate the need for a robust communication strategy on the part of the lifelong learning school, to determine what this might be and to provide some examples of good practice.

b) To explore the many uses of technology within the school and to discuss examples of each and how it might be implemented

c) To demonstrate the value of extra-curricular activities and develop a school strategy for making better use of them in the learning process

Target Audiences

There are a variety of target audiences for this module.

a) Initially there are the decision-makers – the politicians elected to give direction to many aspects of the city's focus and to respond to the demands of a rapidly changing environment within which the city and the school operates.

b) Secondly there are those city professionals whose responsibility it is to provide a school system open to the needs and demands of the 21st century.

c) Thirdly there are the administrative staff and teachers who are preparing youngsters of all ages to live in a vastly different society in the future, one where change is constant, where employment depends on adaptability and flexibility and where learning is for everyone and for life.

d) Fourthly there are the pupils and students themselves who should be included in this crucial debate about their own futures.

e) Fifthly there are those who have a deep interest in the progress of the school – the parents, the governors, the members of the community around it – who can contribute much to its ethos, its processes and its effective operation.

f) Sixthly, there are the National Government Advisers, Inspectors and Civil Servants who determine the content of the curriculum and influence the way in which schools operate in many other ways

g) Lastly there are the ordinary citizens whose interest arises from the sort of inclusive and interactive society created in the concept of the learning city. All of these can profit from the seminars this module generates.

NB Many of these exercises can also be carried out with the pupils of a school.

Lesson 4.4.1 Communicating the Lifelong Learning School's message

Lesson Objective

To demonstrate the importance of a positive internal and external communications and information strategy to the image of the school and to design and develop a contribution toward that.

Suggestions for Learning Leaders

(NB This lesson may be split into two lessons, internal communication and external communication, the split coming after item 7 below.)

1. Introduce the idea of communicating and marketing the school internally and externally to its customers. What do the schools of the members of the class do about this? How important is it? Hand out toolbox item 1, divide into groups of 3, and ask for responses to exercises 1 and 2.

2. Bring back to plenary and discuss what the groups thought.

3. Refer them to exercise 3. In their groups of 3 ask them to design a slogan that could be put onto the walls of every classroom to convey the importance of learning. Each group to design 2 slogans and to put these on the wall. When complete post on the wall and ask the class to vote on the best. Reward the winning group.

4.. Hand out Toolbox item 3A Ask the class to design a statement using as the first word verbs starting with the initial letters shown, which conveys the purpose of the school as a lifelong learning organisation with responsibilities to its learners. Again these should be pasted on the wall – and the similarities ticked.

5. Hand out toolbox item 3B – and ask for comment – were their versions better than the example shown?

6. Now refer them to exercises 4 and 5 on toolbox item 1. Divide the groups differently and into 4 and ask each group to think of 5 statements of the rights of learners that could be displayed openly. Start 'In this school - …' Again these statements could be put up onto the wall and ticked by the other groups if they also thought of that one. Which ones are common?

7. Hand out toolbox item 4 and ask them to tick and cross which of those a) were thought of by the class and b) are implemented at their schools. Bring into plenary and discuss the results. Which are not implementable or desirable or feasible? Which are?

8. Ask for examples of external communication of the school's purpose and mission. To whom? How? Hand out toolbox item 2, divide into groups of 2 and ask for responses to exercise 7. Discuss these in plenary.

9. If the technology exists divide into groups and ask the groups to find examples of school internet sites – get each group to explore each one and write ideas they had not considered. Report these back into plenary

10. Refer to question 8 on toolbox item 2 – divide into different groups and ask each one to design one of the items mentioned. The results to be pinned up on the wall. Reward the best.

11. Toolbox item 5 is an example from Australia. Divide into groups of 3 and ask them to tick items which could be/are included on their own school brochure. Bring into plenary and discuss the example given. Is this the sort of information that should be there or not?

Lesson 4.4.2 Using Technology Fully and wisely in the Lifelong Learning School

Lesson Objectives

The objective of this lesson is to demonstrate the increasing versatility and importance of the use of technology in the school and to relate this to a school's future policy.

Suggestions for Learning Leaders

(NB as it should be for a lesson on technology – try to obtain enough computers for the use of the class in small groups.)

1. Introduce the subject of technology in the school. Find out how many in the class are at ease with its use and how many are not. Who is an expert? How many have computers at home? What are the difficulties and what are the advantages. Put a list of the latter onto the board.

2. Hand out toolbox item 6. Divide into groups of 2 and ask for responses. In plenary discuss the results.

3. Distribute toolbox item 7. Divide into groups of 3 and ask them to complete question and the boxes. Bring into plenary and discuss the results.

4. In the same groups divide items 8A to 8L between them. Each group should now prepare a short 3 minute presentation on each so that everyone now knows the method and the examples.

5. Distribute Toolbox item 9. In different groups of 3 ask for responses to the questions. Discuss the answers in plenary and ask how this should affect the school's long-term policy.

6. Divide into groups where one person who regularly surfs the net is placed with others who do not. Use the computers to find examples of each of the methods of using computers in schools.

Lesson 4.4.3 The real curriculum of the Lifelong Learning School

Lesson Objectives

The objective of this lesson is to demonstrate that extra-curricular activities are the well-spring of culture, motivation, tolerance and fulfilment in the future, and to provide ideas for schools on how they can be fostered.

Suggestions for Learning Leaders

Introduce the topic of extra-curricular activities – what does the class understand about this term? Get some examples. Why are they the real stuff of learning?

Hand out toolbox item 10 (2 sheets). Divide into groups of two. Ask for responses to the quotations and the questions. Discuss the results of all of these in plenary.

Hand out toolbox item 11 – In different groups of two ask the groups to complete the list shown. Again discuss the results in plenary. What are the drawbacks? How many of these do the group members intend to take up? In view of the importance of extra-curricular activities for personal development what does the class intend to do about it?

Toolbox Item 1: Communicating the lifelong learning message in the school

1. **Communicating the school's message generally**

Exercise 1 Mark how important you see the following as an indicator of the school's internal information strategy 1= very important to 5 = not at all important

'the way that education is presented to the potential learner is important – it needs to be marketed as fun, cool, valuable and important that he/she should have it – it needs to compete with all the other 'products' available in the advertising marketplace.' Longworth – Lifelong Learning in Action	
'the way in which the image of learning is presented internally and externally as an attractive and pleasurable activity can make a world of difference to the success of both the institution and the student.'(NewTELS education survey)	
Schools are, whether they like it or not, at the forefront of social, economic and political change. They will become 21st century learning organisations only by making their product more desirable and accessible to learners who themselves need to be convinced of the value of learning. (European memorandum on Lifelong Learning)	

Exercise 2. Particular ways of Communicating the Lifelong Learning message in the school

Does the school employ any of the following strategies to develop lifelong learning awareness in students and staff?

	Yes	No
The school logo on every information leaflet		
Posters on classroom and laboratory walls outlining the virtues of learning		
An attractively produced leaflet about learning for every new pupil		
An attractively produced leaflet about learning in the school for parents		
Displays in staff-rooms about lifelong learning in the school		
Regular information bulletins for staff, parents and pupils		
Other strategies (please state)		

Exercise 3. Design a slogan which can be put onto the walls of every classroom to convey the importance of learning to pupils

Exercise 4. Has the school developed a learning charter outlining the rights of learners or the school's commitment to the learning of its pupils and staff. Yes/No

Exercise 5. Design a poster to be put onto the walls of your school for all to see about the rights of learners.

Exercise 6. If you have any further comment about the schools internal information /communication policy, please use the lines below to express your thoughts, opinions and information.

Toolbox item 2. Communicating the school to the outside world

Exercise 7:. Does the school actively promote and publicise itself to the community outside by any of the following means?

	Yes	No
A Video showing the school as a learning organisation		
Local Press Advertising about the school as a first class learning organisation		
Internet pages specifying the school as a Learning organisation		
Colourful brochures developed to show the school as an attractive place to learn		
A telephone hotline for enquirers		
Regular newsletters for the community around the school		
Regular newsletters for former pupils		
Regular (at least once a term) newsletters to parents		
If yes does this contain		
Material written by the pupils		
Material written by the Governors		
Material written by teachers		
Material written by parents for parents		
A special parents page		
Other initiatives– please specify		

Exercise 8: Design one of the following

an advertisement which could be placed in a newspaper or newsletter and which markets your school to the outside world.

A school brochure marketing the school to the community around the school

An outline of the contents of a video about the school.

An outline of the contents of an internet site about the school.

Toolbox Item 3A

Lifelong Learning School

We:

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Toolbox Item 3B

This is a

Lifelong Learning School

We:

Love all children with equal depth as individuals - for life

Empower all children to develop their full potential – for life

Assess all children without creating failure – for life

Resource all children with skills and values - for life

Nourish all children mentally, physically and spiritually – for life

Involve parents and the community – for life

Nurture all children into full and fulfilled human beings – for life

Give all children a respect for themselves and others – for life

Toolbox item 4

A LEARNER'S CHARTER
GOOD FOOD, GOOD HEALTH AND GOOD LEARNING ARE INTERDEPENDENT PARTS OF THE HUMAN BIO-SYSTEM
IN THIS SCHOOL EVERYONE'S RIGHT TO LEARN AND TO DEVELOP THEIR OWN POTENTIAL IS RESPECTED
THIS RIGHT TO LEARNING IS IRRESPECTIVE OF CREED, ETHNIC BACKGROUND, AGE, NATIONALITY OR GENDER
IN THIS SCHOOL THE LEARNER IS THE CUSTOMER WHOSE NEEDS TAKE FIRST PRIORITY
IN THIS SCHOOL LEARNING IS INDIVIDUALLY TAILORED FOR EVERY STUDENT AND MEMBER OF STAFF
IN THIS SCHOOL THE VALUE OF LEARNING IS ACTIVELY PROMOTED AND ENCOURAGED AT EVERY AGE
IN THIS SCHOOL INDIVIDUAL LEARNING STYLES ARE RECOGNISED AND CATERED FOR
IN THIS SCHOOL ANYONE WITH LEARNING DIFFICULTIES HAS THE RIGHT TO EXPERT HELP
IN THIS SCHOOL LEARNERS HAVE CONSTANT ACCESS TO MODERN RESOURCES FOR LEARNING
IN THIS SCHOOL SUPPORT AND GUIDANCE SYSTEMS, INCLUDING ACCESS TO LEARNING COUNSELLORS, ARE IN PLACE AT ALL STAGES OF LEARNING
IN THIS SCHOOL, AS FAR AS POSSIBLE, LEARNERS HAVE OWNERSHIP OF, AND CONTROL OVER, THEIR OWN LEARNING
THIS SCHOOL WELCOMES PARENTS, FAMILIES AND MEMBERS OF THE COMMUNITY WHO WANT TO ENHANCE THEIR OWN LEARNING AND THAT OF THE STUDENTS

Toolbox Item 5

At Mawson Lakes~ It All Makes Sense

People that live, learn, work or play at Mawson Lakes have the opportunity to take advantage of a range of world class facilities on offer. Facilities such as the Mawson Lakes School, a school designed to meet the needs of 21st Century learners. The school offers educational and care programs for people from birth to retirees.

Mawson Lakes School will offer a curriculum that operates within the South Australian Curriculum, Standards and Accountability Framework. This framework will outline the scope of what is to be taught, the learning outcomes to be reached and the accountability expectations. The framework covers children from birth to post compulsory level and includes:

Education For Everyone

Mawson Lakes school, through its approaches, lifestyle and culture, is creating a lifelong learning community. Put simply, anyone of any age who wants to learn can do it here in a variety of locations and at times to suit their needs. In addition, all education services at Mawson Lakes school will make the most of the high quality information and communication technologies already available within the Mawson Lakes community.

Innovative Education

Our rapidly changing world has placed greater focus on the need for continuous learning. At Mawson Lakes school we have designed our education to build onto the traditional and successful forms of current educational practice in a new and innovative learning environment.

Learning Partnerships

Students will be supported to reach their highest potential as enterprising members of society. The formation of partnerships will be the key to success. It is essential for parents, students, staff and the wider community to work together sharing in significant decisions, responsibilities and achievements for learning at Mawson Lakes school, including.

- A learner centred approach
- An integrated approach to teaching and learning
- Covering the key essential learning s and the eight learning areas
- Developing multi-aged learning
- A focus on lifelong learning
- Customised programs for all students
- Use of advanced learning technologies
- Flexible delivery methods including traditional, online, distance education and partner arrangements with other providers
- A positive approach to student welfare promoting increased responsibility and self-growth
- Innovative curriculum delivery

Students

Students are involved in an exciting range of programmes which foster:

- Leadership
- Citizenship
- Global understanding
- Gifts and talents
- Team work and collaboration
- The enjoyment of lifelong learning
- Participation and commitment
- Physical activity and healthy living

Staff

All staff contribute to the vision of a lifelong learning community through:

- Collaborative team work
- Engaging in quality training and continuous development
- Linking with other learners in our interconnected community
- Working in partnership with families
- Trialling new innovations
- Flexible curriculum delivery
- Creating partnerships with surrounding schools, adult education, business and the community

Parents

Opportunities exist for parents and care-givers to be involved in:

- School governance including the Governing Council and Committees
- Educational programmes and excursions
- Classroom programmes as helpers
- Classroom programmes as learners
- Fundraising, sponsorship & working bees
- Social functions

Facilities

Mawson Lakes School has extensive high quality learning facilities including:

- Access to advanced learning technologies
- Infrastructure for multimedia learning technologies
- Shared recreation, sporting, performing and visual arts facilities
- A multimedia interpretative resource centre (the Mawson Centre)
- Access to the University of South Australia facilities, eg; Planetarium, Fauna Centre, etc
- Technology which links the school, home, community and the world
- Access to all the resources in the community
- Links with business and industry in the locality
- Access to wetlands, waterways and landcare projects

Toolbox Item 6: Lifelong Learning Schools and Technology

These exercises are relevant to the development of a technology policy by the school

Exercise 1: How much do the sentiments expressed in the quotations below accord with the school's perception of technology's potential usefulness 0= fully to 5= not at all

'The communications revolution has enriched, in different ways, both the internet service providers and their rapidly expanding customer bases. Schools cannot but be a part of that scenario if they are to enable their charges to come to terms with the real world'
Longworth - Making Lifelong Learning Work

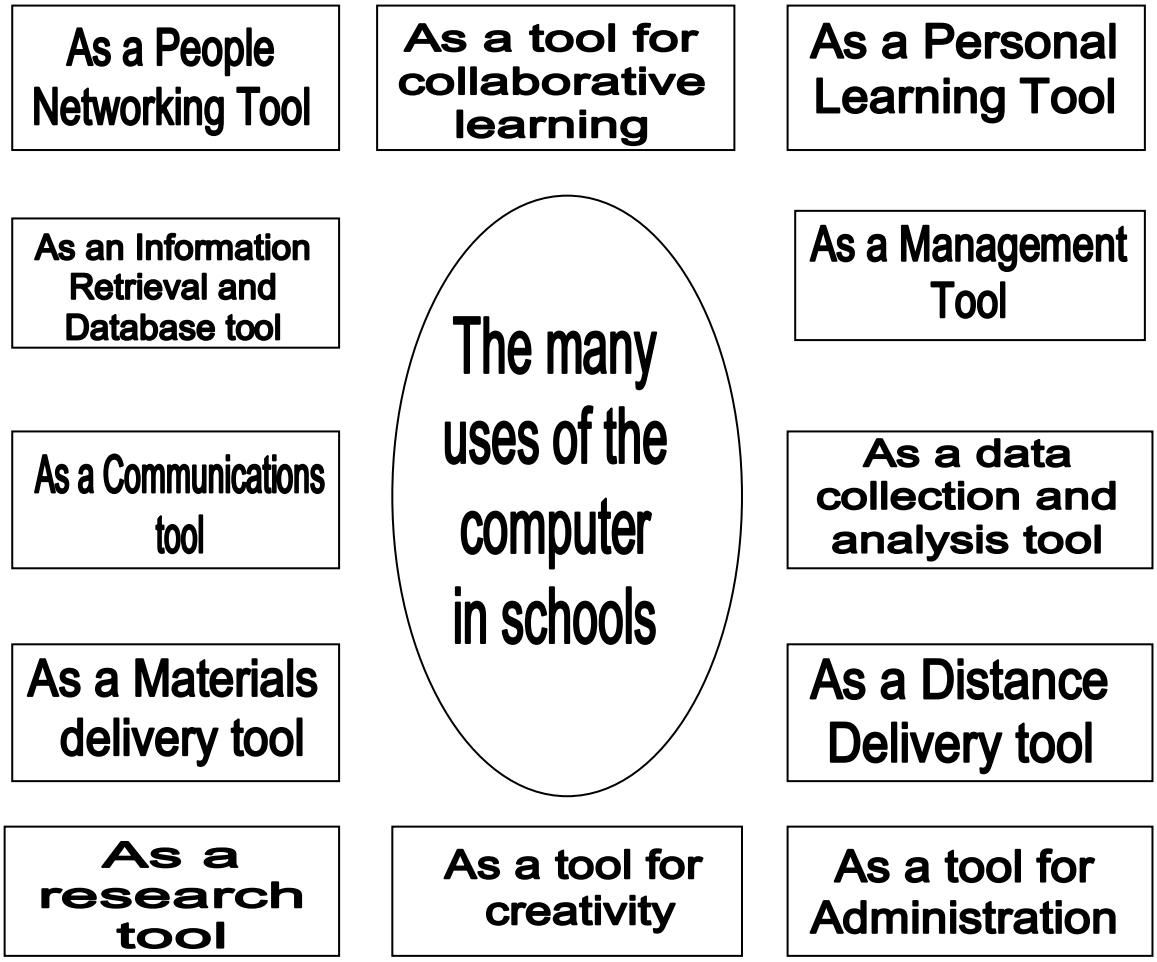
Our use of technology will broaden the curriculum and enhance lifelong learning by establishing new learning environments for teachers and children. It will connect into the broadband fibre optic networks linking homes, workplaces and educational organizations in the community, creating innovative home-school links with all parents and joining into national and international projects through satellite (Mawson Lakes School technology policy)

Most of what our education and training systems offer is still organised and taught as if the traditional ways of planning and organising one's life had not changed for at least half a century. Learning systems must adapt to the changing ways in which people live and learn their lives today.
European memorandum on Lifelong Learning

'thanks to the school's investment in technology, its social-studies teachers are able to enrich their instruction on international trade by bringing into their classrooms live coverage of French farmers demonstrating in Strasbourg, or by discussing the subject live with a university teacher in California who is an authority on sanctions and embargoes. New technologies have opened up the world to students in the school'
Ray Steele, Westfield High School Indiana

Exercise 2. Comments on Technology in the schools?

Toolbox item 7



Exercise 1. Put a tick against the uses you think the computer is put to in your schools.

Exercise 2. In the boxes below give an example of the uses of ICT in your school

	Computer use	Example
1		
2		
3		
4		
5		
6		
7.		

Toolbox item 8A

The computer as a people networking tool.

Putting children in touch with other children, experts, mentors and others who can help them achieve their goals, fulfil their potential and add to their maturity and happiness. Putting teachers in touch with other teachers, experts, partners and others who can give new insights, increase resources and provide added value. The Pallace project described in lesson 4.4.5 and very briefly below is a prime example of this. It involved both teachers, children in schools and professionals in five countries in a monitored interaction to explore how schools and other organisations can contribute to the development of a learning city. In another project, scientists at the National Aeronautics and Space Administration in the USA have made themselves available as contacts for school children world. 'Telementoring', a mentoring system based on email, is now well-established in the USA as a means of helping young people both academically and socially. Engineers at Hewlett-Packard for example are linked to young mathematicians in schools to help them solve problems.

CityRings - Global Learning City/Region Networks and the PALLACE project

'Imagine, if you will, a system of linked learning cities and regions around the globe, each one using the power of modern information and communication tools to make meaningful contact with each other

- School to school to open up the minds and understanding of young people
- University to University in joint research and teaching to help communities grow
- College to College to allow adults of all ages to make contact with each other
- Business to business to develop trade and commerce
- Hospital to hospital to exchange knowledge, techniques and people
- Person to person to break down the stereotypes and build an awareness of other cultures, creeds and customs

And so on – museum to museum, library to library, administration to administration

Imagine that these links include both the developed and the developing world so that say Bristol, Melbourne, Vancouver, Taipei, Gabarone and Sao Paulo, to pick 6 at random, form one Learning Cities ring among a hundred similar networks (see the diagram in toolbox 8D.). Each one exchanging ideas, information, projects, collaborative lessons, understandings etc

Taking schools as an example, global schools networks are not new, but the network which South Australia is putting together is the first to involve children, teachers and parents in debate about the learning city and what schools can do to help create it. There is a huge add-on value to this in that it not only creates heightened awareness of what a learning city can be but also potentially mobilises hundreds of people to contribute to it. This of course will require some creative management and the development of tools such as questionnaires to help increase understanding but its beauty is that the answers are coming from the future citizens themselves, and not being imposed upon them by others.

Toolbox item 8B

The computer as a collaborative learning tool.

In this teachers develop new courses jointly and teach them collaboratively in a common curriculum between schools internationally using communications technology as a means of teacher-teacher and pupil-pupil linking.. One such project, ‘A Europe of Tales’, involved teachers and children telling each other stories related to their own country or region. ‘Adopt-a-monument’ is another example. In this Beernaert tells us that schools from Amsterdam, Athens, Brussels, Canterbury, Copenhagen, Dijon, Dresden, Dublin, Luxembourg, Naples, Santarem and Toledo collaborated ina project to improve understanding of their own and each others’ cultural heritage. They each adopted a monument close to them, researched its history, related it to the cultural and political development of their country and exchanged this knowledge between each other. Some even made themselves responsible for part of the upkeep of the monument. The increase in learning motivation among children in these types of interaction is significant.

And this emphasises that the main task is not the learning itself. It is persuading children that they want to learn in the first place. And here the computer as firstly a networking tool and then as a collaborative learning tool can help. For example, in a groundbreaking project under the PLUTO project in the late 1980s children in Manchester were linked through computer networks with children in Copenhagen. The objective was to find strategies to teach English to the Danish children using strategies whereby the English children would set and mark exercises, supervised by a trainee language teacher. It would, as an incidental advantage, also help the English children with their own English. This proved to be relatively successful at the time, and one unexpected outcome was the desire of the English children to learn Danish.

Toolbox Item 8C

The computer as a personal learning tool.

The use of the new generation of computer software as a learning tool has been mentioned above. But there are other ways in which it can be used directly as a personal learning tool. One of them is in language teaching. Language learning has been a problem area in most English speaking countries for many years. It is caused partly by a shortage of language teachers who can find more lucrative, and less stressful, employment in the world of international trade, but mostly by the 'let them speak English' attitude so prevalent in most of anglophone society. Nor have expensive language laboratories usually been within the purchasing power of most school budgets and so the methodologies of language teaching have focussed in on the easier and more measurable aspects of correct grammar and memorised vocabulary.

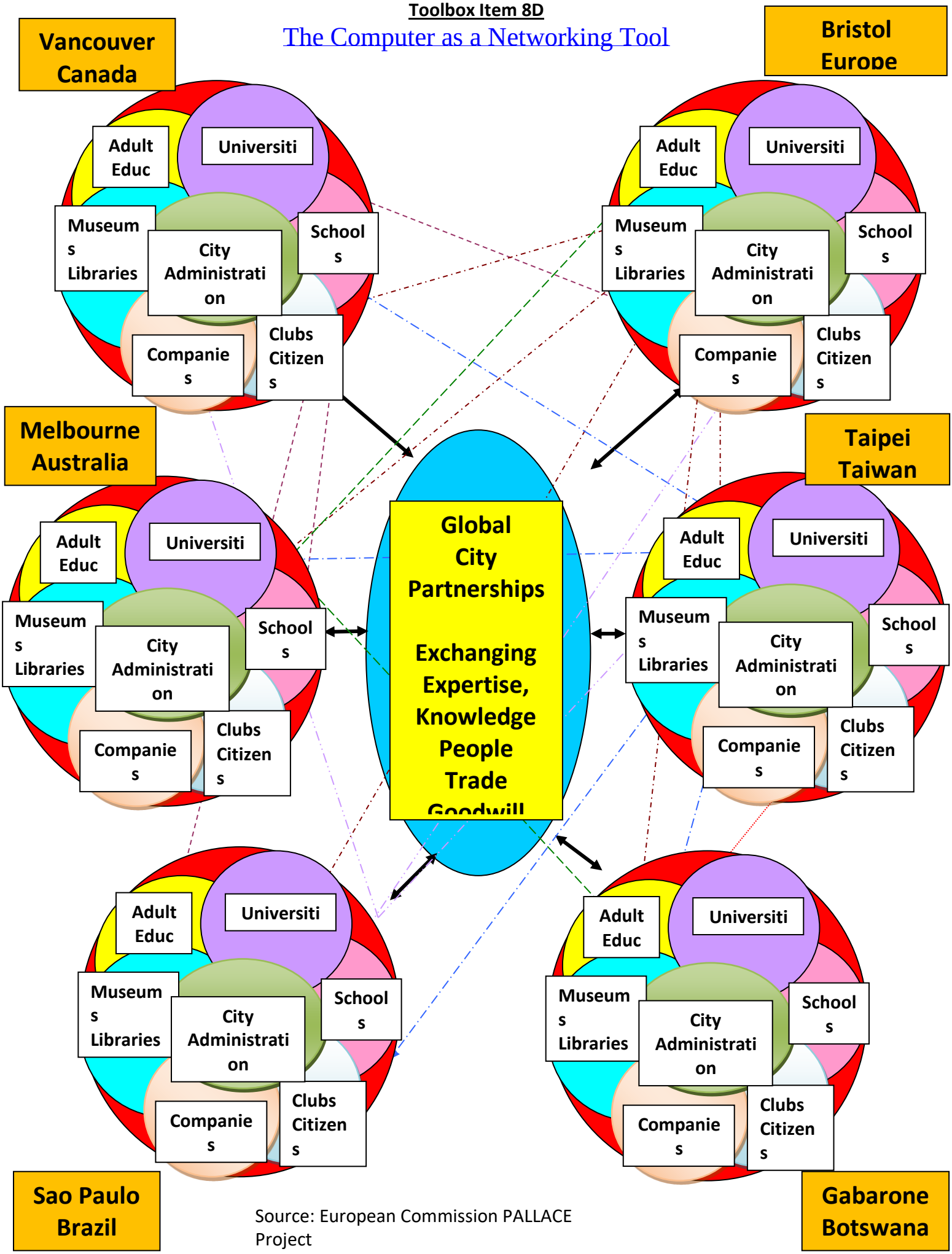
To be sure there have been innovative projects such as the laserdisk produced under an IBM grant which inserted the learner into conversations in French and Japanese, but these were not specifically aimed at schoolchildren, and the technology became obsolete. One two-way language programme that does still exist is the 'Translate a Poem' project described on the armadillo website. Here students from different countries exchange poems written in their own languages and write what they think the poem is saying in a foreign language. Where used it has been successful not only in raising awareness of languages but also in increasing sensitivity to poetry.

Of course it is not only in languages that the computer is valuable as a personal learning tool. And it can start to be useful at a very young age. In Victoria, Australia, Whitefriar's year 1 class has been researching the topic of animals - wild and domestic and endangered species. Children were encouraged to access, retrieve and present information they had discovered using as a primary source the CD-ROM Dangerous Creatures, a disc with excellent multimedia capabilities (graphics, video and sound productions). This was important, as the children are only beginner readers.

In the first activity, the children were asked to choose one animal and to carry out research using the disc. In so doing they became familiar with the mapping, the buttons and hot spots and researched the relevant areas of interest. For example, if the chosen creature was a snake, the disk asks 'What good are they?' The child then plays the video and listens carefully for the answer? This approach enhanced the students skills in successfully accessing and retrieving relevant information. To follow this up a picture of their animal was printed and the children were asked if it was an endangered species. The software provided clear illustrations of where the endangered species are located and this helped the children visualise the issue from a global perspective. A third activity involved the children printing in their own words at least one fact about their animal. They chose the graphic to go with their information. The lesson provided very young children with the knowledge and skills to retrieve information from the computer and turn this into knowledge and understanding.

Toolbox Item 8D

The Computer as a Networking Tool



Source: European Commission PALLACE Project

Toolbox Item 8E

The computer as an information retrieval and database tool.

Here is where the greatest challenge lies, and where the advantage of the internet makes itself apparent. Indeed it is where the inadequacy of the standard curriculum becomes glaringly obvious. The massive amount of information on the net grows exponentially year on year and, given that the usual safeguards against accessing doubtful and abusive material are applied, much of it is useful for producing insights, understanding and knowledge. Both children and teachers can use it effectively, the latter for identifying information and materials sources, the former for homework assignments, personal projects and interest.

The environment might be typical of the many database opportunities. Offerings range from the Global Monitoring Systems at UNEP-GRID, through national weather and environment databases such as CORINE and NASA, to an enormous range of local environmental databases available from Local Government. One example of this comes from Japan where school students went on the field trip in order to find rocks and fossils. Using a local computer data-base, they identified the items and wrote up their findings and results. This led to further study on the sources and history of the rocks, the superimposition of strata, the distribution of volcanoes and riverbeds in the region and eventually land-use patterns and the human geography that had been superimposed onto the physical geography. For the latter they used the computer to access data from national and local sources. They even contributed valuable data not already on the database. In so doing students learned the techniques of basic research and discovered the convenience of computer use. As resources to underpin strategic teaching and learning, and as developers of the mental tools and techniques which enable people to cope with the explosion of information, they are invaluable.

Toolbox Item 8F

The Computer as a data collection and analysis tool

There are hundreds of variations on the data collection theme in the local environment. Trees, birds, gardens, rivers, plants, flowers, streets, houses – all are potential objects for personal or class databases in the vicinity of the school giving rise to environmental, biological and botanical insights. But there are other focuses for the collection of data. De La Salle College, Cronulla, Sydney, is a senior coeducational college of approximately 500 students. History students there are often required to make oral presentations based on the results of their investigations.

One example of this is a unit on World War 1, where Year 11 students are investigating the effect of World War I on the lives of young Australians, both at the frontline and in Australia. Students used photographs, documents and various memorabilia as well as interviews, letters and diaries as raw material. In some cases, the grandparents of group members also proved a valuable resource. In others the computer itself was resource. The outcome would be a reconstruction of the impact of the war on the lives of individuals, and, through this, insight into its broader context. This is a valuable exercise in data collection and analysis. However, there is a further dimension to this project, in that the computer was also used as presentation medium. By linking the video camera and a computer to produce digital images, it was found that the students were given greater control over what they were doing and were able to produce semi-professional presentations that could be used by their fellow students to further their own learning. The school also gained a permanent record.

The use of technology in two ways – for the storage and analysis of the data, and for the preparation of video presentations - has provided another effective strategy to the teaching of history in the school. There are many examples of such projects build up geographical, historical or family databases both locally and across country and regional boundaries. They not only demonstrate the power of the computer to stimulate more meaningful and relevant work in the context of real world examples, they also change the pupil-teacher relationship. Peter Smith puts this more succinctly. ‘Taking advantage of this new capability will require profound changes in the roles of teachers, students, and school,’ he says ‘Instead of being the repository of knowledge, teachers will be guides who help students navigate through electronically accessible information. They will use the new technologies to build networks with each other, with parents and students, with academic and industrial experts, and with other professionals. Schools will look less like the factories they were set up to emulate and more like the workplaces of a post-industrial age. The distinction between learning inside of school and outside will blur’

Toolbox Item 8G

The computer as a communications tool.

The world is shrinking and Schumacher's global village is fast becoming a reality. It takes the press of a button to send email speeding around the seven continents of the world in trillionths of a second. According to Rose and Nicholl, a single hair-thin optical fibre can transmit all twenty-nine volumes of the Encyclopaedia Britannica in less than one second. Satellites encircle the globe and enable visual, as well as verbal, communication and link into the several million computers now used in offices, studios, universities, homes and, if they believe themselves to exist in the modern world, schools. There are now forums, internet groups, discussion marketplaces and chat lines on every conceivable subject in every place where human beings interact. The communications revolution has enriched, in different ways, both the internet service providers and their rapidly expanding customer bases. Schools cannot but be a part of that scenario if they are to enable their charges to come to terms with the real world.

As we saw in chapter 1 this eruption of information and communication has the effect of disenfranchising those who are unable to cope with it. Teachers and children find themselves in exactly the same dilemma – too much information, too few strategies to cope with it. And of course there is also dis-information – the opportunity for broadcasters, dictators, unscrupulous communicators from every walk of life, to manipulate thoughts, feelings and actions in ways that inhibit the growth of a mature society, replacing one sort of tyranny with another. It is a situation of great urgency for schools. One way to deal with it is to use the communications capability of the computer to communicate with others. Heatherwood school in Victoria, Australia, services students with mild intellectual disabilities from ages twelve to twenty-one. Its philosophy is based on the belief that every student has the ability to learn and succeed and it aims to develop self-motivated individuals, who have the necessary attitudes and skills to lead independent, socially productive and personally fulfilling lifestyles.

To this end it publishes every week the 'Heatherwood Star', a newspaper for parents and the community. All classes in the school are involved and teamwork in writing the stories is encouraged. Planning and discussing ideas often takes place in the classroom and students may prepare drafts to bring to computer sessions. On the technical front, word-processors, digital cameras and publishing software such as Pagemaker are used. But the real benefits come from the activity itself. It promotes many of the skills identified in chapter 9 as essential for a lifelong learning world – teamwork, critical judgement, communicating, information handling, decision-making and others. Teachers use the results for further reading and discussion work.

Entrepreneurial skills are added since the students also sell the newspaper, and communication between school and home and school and community are enhanced. They own both the process and the outcomes. This is an excellent exemplar replicated in many schools today, and it opens the door to other communications-oriented exercises based on the increasing capability of the computer, such as the making of videos, CD Roms and professional standard publications.

Toolbox Item 8H

The computer as a creativity tool.

Computers are machines. They do only what they are programmed to do, even if, to the untutored mind, much of it seems to be astonishing. The also do it very fast. Any creativity surrounding the computer must therefore emanate from the people using it. And in today's and tomorrow's world creativity is a key attribute for every human being. Rose and Nicholl lament 'Children are leaving school ill-equipped for the jobs of the future – the jobs that will require very high standards of analytical ability, creativity and flexibility, In fact we don't even know what those jobs will be. They have yet to be invented.' The second part of the quotation is most certainly true, as is the first.

But there are now a large number of schools where creative applications around the use of the computer abound. Many thousands of children are adept at making their own home pages on the web and this is one of the reasons why the internet is growing so rapidly. At Rosny college in Hobart, an establishment for years 11 and 12, students are making heavy use of computer graphics and design programs No longer do traditional design methods using 2D paper space and primitive drawing tools to illustrate a concept apply. Students' creative thinking skills and conceptual ideas are developed in a three dimensional, computer generated, virtual environment. They are put into a problem-solving situation to produce an initial model and use further computer simulations and prototyping steps through the various stages in the design process. If the design is to be produced or manufactured, final working drawings are printed and collated at the end of the design exercise.

The course they take progresses through an ever more complex series of tasks leading at the end to a solution which only the computer can generate. These design exercises extended the students' ability in the various software tools available and enabled them to experience the many and varied methods of developing a design from the initial concept to a final three dimensional solution. They were enabled to proudly present their work and ideas in a range of formats to future employers and tertiary institutions.

Toolbox Item 8J

The computer as a research tool.

Computers are also used as tools for research in many environments, usually associated with universities, laboratories or advanced manufacturing industry. But schools too can use the ability of the computer to store, analyse and present data in order to develop the critical thinking skills needed by citizens of the future.

One example of computer work stimulating cooperation between schools comes from the Hobart region of Tasmania in a partnership between the Department of Education, the local newspaper, 'the Mercury', a primary school and several secondary schools. All participating schools have varying degrees of access to the Internet, ranging from single line up to multiple computer lab access.The Mercury's 'News in Education' programme identifies key issues in the news and current affairs and produces special materials for schools. The targeted areas have been written specifically for publication on the WWW. Schools can then gain immediate access to material that is being constantly updated. For example, themes have included: 'Celebrate Tasmania, an historical feature on Tasmania's past, 'Antarctica' and the Opinion page of The Mercury, looking at the editorial, daily cartoon and letters. Each of the published themes has a combination of text and graphics, as well as teacher's notes, suggested activities and ways of utilising the source material. The Mercury provides students with access to the initial copy as received from journalists, the first edit with comment and the final edit that appeared in the newspaper.

This gives students a special insight into how a newspaper operates. Prior to the publication of the newspaper, the students were able to pull this material off the web site and assume the roles of writer and editor to create a page of the newspaper. When the paper was published, the students were able to compare their page with the real page published in The Mercury. Fast reliable access to the Internet is an absolute necessity as many of the activities and the source material rely on the use of pictures, cartoons and significant amounts of text. Such projects promote interactivity between schools and industry, between schools and schools and of course between schools and computers – all in the context of a real and relevant learning experience.

Such illustrations demonstrate the ability of the computer to enlarging the vision and horizons of today's school students. Smith agrees. 'Because of their immersion in a computerized world,' he says, 'children absorb information differently than their parents do. Instead of following information passively from beginning to end -- as people tend to do with television shows, newspapers, and books -- children interact with the new technologies. Watching them use a computer is more like witnessing a conversation than a monologue. They skip from place to place and draw connections. They construct their own realities by experimenting with what already exists. '

Toolbox Item 8K

The computer as a materials delivery or development tool

New resources for lifelong learning are unlikely to come from local taxes or national handouts. Strategies for increasing the resource available to the school have been discussed in several chapters in both parts of the book. However, the computer itself is an enormous source of new resource available to schools, and much of it entirely free of charge. In the UK, the English and Scottish National Grids for Learning are setting an example by developing a library of films, case studies, sample lessons, videos, graphics material etc suitable for use by schools and other educational organizations.

But there are other sources emanating from all over the world wide web. Longworth pointed out in 'Learning Cities for a Learning Century' 'A vast library of downloadable materials highly relevant to many curricula, including video clips, graphics, text, sound, motion picture, is now available there, much of it free of charge. Want to know about Kangaroos? Look up the Kanga company's website for educational materials suitable for geography, history, natural history and home economics. Want information and materials on oil and petroleum? Look at any of the oil companies' web sites for graphics, learning materials, clips and sample lessons for teachers. This new richness of resource, while often industry based, is not always an advertising gimmick and much of it is professionally prepared by active educators.' And nor is this simply available to teachers. It is there to be used by the students as they construct their projects and develop their presentations in order to make yet more materials available.

Bannockburn Primary School in Victoria, Australia, takes a whole school integrated approach to curriculum delivery and uses the learners themselves in years 3 and 4 to help develop it. Children work in groups of three or four to create a mini television program to demonstrate special effects, using software developed principally for creating learning materials. The emphasis is on whole brain learning with a mix of dynamic, imaginative, analytical and commonsense tasks.

Firstly they are taught how to draw pictures, add text, record music and students' voices, and use the slideshow component of a computer program titled Kid Pix Companion.

Secondly the children survey their peers to find out their favourite television programs and advertisements and to ask their opinion on

what makes a TV show popular?

what special features make one advertisment more successful than another.

what audience is targeted for particular advertisments and TV shows.

They then list key words from the information collected and presented and classify advertisements and television programmes into different types.

The next stage is, in groups, to produce their own slideshow, generate their own special effects and link pictures to create an animated sequence. They use a combination of word-processing, drawing, sound recording and special effects to input into the software. Only if groups were unable to solve a problem could they request assistance from their peers (peer tutoring) or teachers. Off computer tasks included script-writing, and the research, design and construction of a radio or television system (from microphone or TV camera to receiving the signal in our homes). The outcomes are new multimedia productions, but in addition children have also used other software to produce 'living books', school magazines and newspapers. The quality from such young people is high.

This is a good example of the usefulness of the computer to raise the standard of achievement and learning in children, and to act as a focus for innovative and creative activities.

Toolbox Item 8L

The computer as a distance delivery tool

No discussion on the use of technology can ignore the advances being made in distance delivery tools and techniques. However, not only are the studios expensive , but the pedagogic techniques used are often ill-suited for use in schools, except at the older levels. But no such constraints exist at the Maconoquah School in Indiana, USA. Here a sophisticated interactive network of video technology, state of the art computers and voice services link the 2000 students and teachers with anyone and anywhere in the world.

The school is completely cabled through fibre-optic technology, every room and every desk linked to each other and to the outside world. In-school recording technology allows teachers and students making a trip, for example, to the Indiana State Museum to record a VCR tape of the visit, and indeed students are encouraged to make their own video learning materials, with background music, edited footage, subtitles and narration for others to learn from. Teachers from any classroom can call up videotapes, still videos, laser discs, CD-ROM and CDI discs, motion pictures, computer software slides or satellite images onto the classroom desktop monitors and large screen facilities.

Every classroom and administrator desk is equipped with a data port giving access to central file-servers, multimedia software, email, word-processors, presentation systems and desk-top publishing. Voice mail is linked to homes and other buildings in the locality. Students use the technology to develop newspapers, do homework, access language programmes in Spain, Italy and France, download books and video materials, learn at their own pace and test themselves on the knowledge gained. Every teacher has been trained to use the technology in the optimum way.

For some, such technological richesse would be the ultimate nirvana, a foretaste of learning efficiency for the future. For others it is a horror story in which the machine has taken over the function of the teachers and is transforming children into non-creative techno-junkies. But of course, even in the most technologically oriented school, there has to be multiple opportunities to interact without the technology. And it will not diminish in the coming years.

Because of its extensive use of ICT, Maconoquah claims that it can deliver a continual skills-based curriculum with accompanying self-assessments. Students with special needs, whether deficient or gifted, can be catered for individually. A wide curriculum can be provided, bringing in expertise from all over the district and even internationally. The school goals encourage creativity and innovation, and a strong partnership with the local community and parents.

Toolbox item 9 Using Technology in the School

Effective use of technology helps to meet the new lifelong learning demands of flexibility and increased ownership of learning. These exercises can be used to raise the debate on 3 aspects of learning technologies in the school

1. **The development and effective use of distance learning technologies (satellite, cable, ISDN, radio etc) to develop and deliver learning**
2. **E-learning - the use of electronic networks to increase learning incidence and performance**
3. **The development and use of open learning systems and courses through computers in the classroom, the home, the office and wherever there are learners.**

Exercise 1: Distance Learning and the Institution

		Yes	No
1.1	Does the school have access to broadband capability for delivering courses at distance to learners in classrooms etc within the school		
1.2	Is there a school strategy to increase broadband facilities for learning		
1.3	Are there studio facilities for distance delivery within the school?		
1.4	Is there a defined strategy to improve the knowledge of teachers about the effective uses of distance learning systems		
1.5	If such an opportunity arrived would it be welcomed by the majority of the teachers in the school?		

Exercises 2:. E-learning and the internet

The use of networks in schools is proliferating . Please mark the questions below from 1 to 5
1= 0-5%, 2= 6-10%. 3= 11-20%, 4= 21-50%, 5= over 50 %

2.1	What proportion of students are given access to email facilities internally in the school	
2.2	What proportion of teaching staff regularly use email as a communications tool	
2.3	What proportion of courses use the internet as a reference source	
2.4	What proportion of homes are linked to the school by email/internet?	
2.5	What proportion of staff are able to use networking strategies for learning?	

Exercise 3: The use of the internet demands special knowledge of technology. Please answer the following questions

		Yes	No	planned
3.1	Is there a formal plan to increase this sort of activity within the school			
3.2	Is there a formal course for staff on the effective educational use of e-learning and the internet?			
3.3	Does the institution have special programmes to enable students and staff to buy computer hardware and software more cheaply			
3.4	Is there a self-learning centre within the school?			
3.5	Is there a library of educational software available to staff and pupils?			
3.6	Does the school participate in any local, European or National projects involving electronic networking as a learning medium/environment			

Exercise 4: The following are effective uses of networking and computer technology in schools. Please say whether or not it is used in this way in your school. Please add any other use within your school in the blank spaces

		yes	no
	The computer as a people networking tool – linking staff and pupils to others		
	The computer as a collaborative learning tool – for developing and teaching new courses cooperatively with another school		
	The computer as a personal learning tool – for individual study		
	The computer as an information retrieval and database tool – for supporting projects		
	The Computer as a data collection and analysis tool – for analysing data		
	The computer as a communications tool – linking children and staff internationally		
	The computer as a research tool – for gathering and analysing personally collected data		
	The computer as a materials delivery or development tool – for staff to develop new materials and have them delivered automatically		
	The computer as a distance delivery tool – for linking to satellite programmes world-wide		
	The computer as a management tool – for developing timetables etc		
	The computer as an administration tool – for letters etc		
	The computer as a tool for creativity – using creativity programmes		
	The computer as a home-school communications tool		

Exercise 5: If you wish to add a comment here about the school's use of computers as tools for learning, please use the lines below to express your thoughts and/or opinions or to give more information.

Toolbox item 10 – Learning out of the curriculum

Extra-curricular activities provide the opportunity for children and staff to know and respect each other better through shared experiences. Schools with a vibrant programme of non-curriculum projects tend to gain and retain the affections of its staff and children for a long time.

Exercise 1: Please say to what extent the sentiments expressed in the quotations below express the experience of the school
1= fully, to 5= not at all

‘Those things which take place outside the classroom - participation in the school play, songs sung in the school choir, friends made in the playground, the peculiar characteristics of certain teachers, the clubs and societies they joined, the sports teams they represented and journeys organised by the school to other places - often have a greater impact than the curriculum in the long term.’ (OECD)

‘Certainly the successful school has a thriving set of extra-curricular activities associated with it. Such activities are also the opportunity for children and staff to know and respect each other better through shared experiences. Participation is also learning - it is one of the most effective ways of understanding and instilling respect for any cultural field, whether it be the theatre, music, literature or sport. It goes without saying that a Lifelong Learning school will be one of the liveliest, most stimulating and inspiring organizations in town.’
(Longworth – Making Lifelong Learning Work)

The social curriculum is also enhanced by the way in which the school encourages a wider outlook on the world through extra-curricular activities. The school with a vibrant and thriving orchestra and/or band will enhance the musical potential of its children for life. The school with a solid sports and gymnastic agenda will produce fewer couch potatoes than the one without. The school which organizes a play, a musical or a drama event and involves as many children as possible will provide a lifetime access to, and love for, theatre and music culture. The school which offers pupils a variety of lunchtime and after-school clubs and societies will expand horizons and open up a lifetime of interesting hobbies and passions. The school which provides the opportunity to travel – to another country, another environment or a study centre will widen the horizons of its children for life. It also tends to be the sort of school which gains the long term affections of its staff and children. When one looks back on one’s schooldays, lessons and examination slogs are not the memorable highlights of a school career.

(Lifelong Learning in Action)

What used to be regarded as side-issues and add-ons to a good education are now appearing as a vital part of the modern curriculum of a lifelong learning school. They are no longer extra-curricular, but a key component in the process of producing well-rounded and motivated children with a wider vision of the world and a determination to do their bit to make it better. In order to make it happen, they are using a range of professional expertises from the community to help - teachers, assistants, producers and directors, leaders of clubs, societies and sports, musicians, poets and authors, scientists and stage managers.

2. Comments?_____

Toolbox Item 11 (2 sheets): Extra-curricular activities

Exercise 2: Name the five things you most enjoyed about your own schooldays

Exercise 3:. Name the 3 things you least enjoyed about your own schooldays

3.1	
3.2	
3.3	

Exercise 4: How much do you think it is the school's responsibility to instil the following in children so that they can have a wide and fulfilling life as adults.

	Very much	Some	Not at all
A love of music other than the pop songs of the day			
A love of sport			
A love of poetry			
A love of travelling			
A love of theatre			
A love of dance			
Empathy. A sense of 'other'			
A love of nature and the open air			
A feeling for the environment			
A sense of active citizenship			
Responsibility to do what they can for the less fortunate			
Self-understanding			
Personal Management Skills			
Tolerance for other creeds, cultures, colours and races			

Exercise 5: Put a tick in the last column against those which your school consciously tries to foster in children.
Exercise 6. Put a cross against those which were fostered by your school in your own schooldays.

Exercise 7. Please say which of the following were available in your own school during your childhood and what is available now at then schools where you teach or to which your children go

	past		pres	ent
	Yes	No	Yes	No
A school orchestra				
A school jazz band				
A school brass band				
A musical show put on by the children every year				
A school choir				
More than one school choir				
The opportunity to learn a musical instrument				
A school Scout or Guide Troop				
A Senior School Soccer team				
A Lower Secondary School Soccer Team				
A Junior School Soccer Team				
A School Rugby Team				
A School Tennis Team				
Other school sports teams (please say which in the box below)				
A school trip abroad every year				
More than one school trip abroad every year				
A Ski-ing trip				
Camping trips in own country				
Fell-walking trips in own country				
International exchanges of pupils				
International exchanges of staff				
Visits to study centres far away from the school				
Trips to the theatre				
Visits to Town Council meetings				
Visits to local Museums				
Visits to local industry				
A school play once a year				
A school play more than once a year				
A Drama Club at lunchtime or after school				
A Debating Society at lunchtime or after school				
A Poetry Society				
A Music Club at lunchtime or after school				
A hobbies club at lunchtime or after school eg railways, bird-watching etc				
Other clubs and societies (please say which in the next row)				
Every teacher expected to run a hobby or interest club once a week				
Formal links with local theatres and/or sports clubs and/or musical societies				
Visits to the ballet				
Dancing lessons				
The school has its own swimming pool				
The School has its own library				
The school runs sponsored events in aid of the less fortunate				
Other (please state)				

7. Now put a tick against the activities you were associated with at your childhood school and a cross against the ones you are associated with at your present school (where applicable).