Toshiba Scholarships

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In 1994 Toshiba UK diverted the annual budget for three colour advertisements in the educational press into a collaboration with Project Miranda at the Institute of Education, London University designed to resource teacher education in network literacy.

Project Miranda was looking for innovative strategies to resource teacher education particularly at senior management level because there is growing evidence that understanding of the management of change is key to successful uptake of computers in education.

National advertisements opened this scholarship to the new profile of teacher educators based in schools, local authorities, colleges and universities as well as specialist teacher education institutions. These are the educators who are expected to lead good practice in network literacy although there no professional courses are available for them: the kind of educators who can provide the training answers if they are given the time and support to aid their own thinking.

Candidates from senior management had to be reflective and analytical, as well as good communicators. This is an extension of research which indicates that in ninety per cent of schools where information technology practice is worthy of comment, the head has a computer. (Harris and Preston 1994)

Their learning institution had to support their application by giving paid time and support cover for eight days of workshops. Each scholar had to negotiate a project that they would implement in their institution with the on-line support of Miranda tutors and other scholars. After a year, scholars became lifelong Miranda fellows and were invited to mentor the new intake. Some learning institutions presented another scholar in the second year creating a better continuity, ownership and institutional spread of good practice.

The eight winners received a top specification Toshiba mobile on-line computer loaded with the Microsoft Office suite, as well as an Open University membership to First Class where the Miranda Cafe had been established as well as areas for modular learning. TAG, the software developer donated several copies of the multimedia authoring tool, Hyperstudio. Twelve other fee-paid Miranda fellows belonged to other bodies which had elected to become part of this action research project. Their institutions provided the hardware and software. Four Czech Miranda Fellows from Charles University Prague, the Czech Technical University and Arabska Gymnasium, were supported by the British Council, The Czech Academic Chapter, Hewlett Packard and Microsoft were learning to set up an Eastern European scholarship.

Xemplar, the new education liaison between Apple and Acorn gave each Miranda Fellow pocket book computers, which were extensively used. BT Research and Development Laboratories funded a Fellow from one of the Customers of the Future schools in Suffolk,

so that he would gain from peer support. He also contributed on good practice in the primary classroom where resourcing is generous. An ex-advisory teacher from a well resourced school in Kingston, Surrey offered similar secondary support. Guildford College, Surrey provided an further education perspective.

Amongst these Fellows are international British Council educators keen to learn how to implement distance learning techniques throughout their staff. The London Institute of Education, the Open University, South Bank University and Nene College teacher educators were acting as mentors, tutors and evaluators in order to add to their knowledge about educating teachers as well as testing new input on-line.

Besides gaining technical skills in the first workshop scholars were introduced to the principles of the management of change. Bridget Somekh, who has directed a variety of successful action research projects with NCET like PALM and INTENT, spent a full day introducing the scholars to methods of encouraging and supporting staff development in network literacy in learning institutions. Each scholarship assignment was designed on action research principles. The scholar became the researcher who with the support of the Miranda team had to identify and plan for the institutional changes that had to be made to encourage staff network literacy.

The knowledge that is being built up about how educators learn is growing. In the first year of the scholarship ownership of the best technology proved to be important. The Toshiba mobile raised the self esteem of the learners as well as raising their status as educators and advisors with staff and students. These scholars valued top quality machines, reliability and good maintenance services.

By having their own computers to use all the time they felt they were better able to identify the kind of training they needed and better equipped to do the job. Mobility allowed teachers to work wherever they were and it was calculated that the personal time given by educators to master the computer more than equated with the cost of the machines.

On-line training support was considered to be valuable, but access problems were still difficult despite the improvements in interface design once connection had been made. Trainers were advised to develop international accreditation for practical assignments.

The links with BT and Toshiba had afforded opportunities to see the best technology and to hear about new developments relevant to education. Working with managers from industry had increased insight and understanding on both sides about working roles. The educators wanted to increase the partnership activities in the scholarship. Most of all they wanted to remain within the fellowship and go on learning as well as supporting others.

Scholars' Evaluations of Toshiba workshop

At the end of the Toshiba workshop in 1996 Scholars had a chance to evaluate their learning experience. They complained of a sense of isolation in Britain. Local management of schools and the high cost of support cover has limited professional opportunities. Most teachers still have an average of less than two days IT in-service training in their entire career, less in the initial training institutions. Many teachers pay their own post graduate fees.

An increase in competition between schools has reduced the chances of meeting with peers. The face to face Toshiba workshop in comfortable surroundings helped the scholars to feel they were not working in isolation. The peer contact was considered to be an essential part of the training. More was learnt from learning with international colleagues from a range of phases and disciplines than with a homogenous group. A variety of different levels of experience, age, subject discipline and even nationality was considered to be a bonus. Mentors from the previous year enriched group learning and was an essential aspect of handing on information from each scholarship year.

They valued the sessions given on the most advanced technology research by Toshiba and BT staff, as much as the input from well resourced primary and secondary teachers. The European Waterways project greatly impressed the visitors to Wickham Market School, Suffolk. Students all over the world had been exchanging information about their local river in a variety of forms. The lively displays on walls and screen of comparative resources was impressive. At Holycross School students had captured dance with digital cameras and developed international on-line magazines publishing children's work. The standard of individual engagement amongst teenagers was remarkable.

The scholars felt that they had learnt most working in teams to produce collaborative presentations about teachers' learning in telematics. Some scholars felt that Microsoft PowerPoint, the presentation tool, and TAG Hyperstudio, the multimedia authoring tool could revolutionise communication of learning in the classroom for teachers and students.

In particular the scholars valued the debate about the issues at the workshops. Ownership of the mobiles and pocket books meant that more skills training was not requested. Scholars felt they had these opportunities in the workplace and at home.

The scholars proposed the establishment of a Miranda Fellowship Centre where fellows and teachers could met on-line as well as face to face over a long period of time thus building up contacts with other teacher experts for consultation. Scholars wanted to develop uses of the BT communication technologies they had seen in use – audio conferencing, video conferencing , MOOs and collaborative on-line use of software using Timbuktu.

They had appreciated the range of projects that the scholars had established and wanted more opportunities to study this progressing work. Only reflective practitioners can really keep up with the effects of these technologies in the classroom. The debate would be valuable as well to teacher educators who are not in schools.

The future of scholarships

Through their partnership with the Institute of Education in this important teacher education field, Toshiba have become and acknowledged education supplier and inspired a DFEE award to teachers for mobile computers.

Information from this project about teachers' learning in network literacy is growing. A narrative handling on-line course is now underway so that the educators can learn to tell their personal learning story. The hypothesis is that other educators will find this approach useful in a subject which is so new and so challenging. These stories will be published on the World Wide Web although this will not be a good dissemination

medium for the target audience – those teachers who are just starting to be interested in network communication.

The most significant aspect of the Toshiba teacher education project has been the ownership of an on-line computer by the teacher which is still rare. In successful universities and in industry an appropriate computer is supplied to employees if their job description includes an aspect of network literacy whereas in the school system teachers not generally receive computers.

With the introduction of local management of schools a few inspired heads have worked out leasing schemes or made bids to companies in sponsorship. Schools have also been offered cast-offs from well meaning industrialists – a gift heads have to handle diplomatically since out of date technology can be an obstacle to effective learning. (Booker and Scheer et al 1995).

The same provision has not been made in teacher education or for teachers in service. There are no tax breaks or official purchasing schemes.

One of the Toshiba scholars had been resourced by the DFEE who have taken a imaginative approach to teacher ownership of computers with a £4 million grant to be spent on multimedia mobiles for teachers(DFEE1996). Although this move was applauded by the scholars were critical of the training from manufacturers offered with the mobile scheme. Implemented hastily as part of the underspend at the end of the financial year the training dwelt on technical skills. There has been no opportunity to offer management of change training, to support the educators on line as they learn – or to put them in touch with each other. It was suggested that case studies and examples of good practice in schools should be distributed with the next distribution. Findings from the Toshiba scholarship pilot suggest that the double the full cost of the computer should invested in training, on-line support and peer group mentoring. The DFEE scheme does, however, create an important starter model in addition to some of the Toshiba scholarship findings.

Will Toshiba be able to go on providing a lead in this area? It is hard to see why they should. In two years the mobile project they started is worth nearly a quarter of a million pounds to the government who have not had to invest any money or effort into the venture. Yet Toshiba won an unexpectedly low proportion of the DFEE tender, popularly called ‘The Toshiba Bid’ despite competitive pricing. (TES John- 1996 February) Established suppliers of computers to education had complained about the high specification and rushed up mobiles to met the multimedia specification. The government gave them all a slice of the cake, although there have already been problems with reliability of the other laptops and the effectiveness of the dealer training courses.

Education should not rely on one company because companies must respond to the market. For example, Toshiba’s generosity has been curtailed because they are currently extremely profitable. They are diversifying. Less marketing money is available because the parent company put most of the marketing resources into a new desktop launch campaign. How can industry support teacher ownership of computers without being committed to long term policy?

Developing a charitable trust to supply teachers with mobiles is one consideration. Government would need to take a political lead and pay for the pump priming research as well as reconsidering the tax laws. Like other profitable computer companies, Toshiba, have multinational clients who could be persuaded to release mobiles of a high specification that teachers would be proud to own. For a modest charge a self financing trust could recycle the machines and provide maintenance. The mobiles could be distributed with a subscription for on-line connections, that would include training fees, and a small levy so that productive action research findings could be ploughed back into the system. A dealer like Action which is committed to education may be persuaded to undertake this task.

BT have the telematics infrastructure and universities have the on-line training knowledge and the support know-how. Companies like Oracle and Microsoft have the software.

When a right relationship is established between people, culture and technology a new world of options emerges. (Beare and Slaughter 1993)

Political will, the support of industry and not a little energy would be required to develop networked educators as supported and respected agents of change. Advanced technology is improving exponentially. If the political and industrial will can be found for community partnership it would appear that the time is now right to enrich culture, literacy and the quality of life through networks.