**University of Oxford Department of Education**

**Research and development to support the next stage of the Harnessing Technology Strategy. The Learner and their Context**

**March 2010**

**Narrowing gaps and supporting the vulnerable**

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# Executive Summary

# 1. Introduction

This section identifies the key focus of the report as being on the ways in which vulnerable (i.e. Looked After Children) and SEN learners benefit from the provision of Internet-connected laptops in the home, in terms of improved learning opportunities and especially in terms of the improvement of personalised learning.

# 2. Embedding the technology in learners’ homes

This section summarises the background to provision, and presents evidence concerning specific issues of safeguarding learners (and some of the problems emerging from their protection), the ways in which technology provision supports wellbeing, and the ways in which the use of the technologies both enables and is enabled by the context of family and informal learning. The key role of parents and carers in this respect is emphasised.

# 3. Engaged and empowered learners

This section presents a number of different examples of the ways in which learners are succeeding or having difficulties with using their new technologies to support their learning. Limitations upon learning that result from restricted access to the Internet are discussed. It is also suggested that learners generally accept the fact that this equipment has been provided for them especially to support their learning.

# 4. Conclusions: improving personalised learning

The findings of the report are summarised in terms of the extent to which they are shown to support personalised learning. Some instances of insufficient personalisation of assistive technologies are identified. The problems of restricting Internet access for this particular set of learners are raised and, whilst it is acknowledged that the personalised learning needs of some are potentially protected by not being allowed free access to the Internet, there are significant negative issues inherent in this degree of restriction. The following recommendations are made:

### Recommendations

1. The evidence suggests that the provision of ICTs in the home has already achieved considerable benefits for vulnerable and SEN learners, and every effort should be made to continue to achieve the fullest possible coverage;
2. In terms of learners with specific learning needs, the provision of hardware and software that is appropriate to those needs is an essential opportunity for ensuring effective personalization of learning;
3. There needs to be improved communication between home and schools to ensure sufficient levels of co-ordination between uses of assistive technologies in the two locations, so that learners have consistent experiences and are able to make the most of the technologies they have at home;
4. There needs to be strong communication between home and school also to ensure that those with learning difficulties especially, and their carers, are given clear guidance from the school on productive learning activities that they can undertake in the home with their new equipment; it is not sufficient to expect them to discover worthwhile applications of the equipment unaided;
5. Parents and carers of learners with special learning requirements play a crucial role in helping their children to make the most of their new ICTs, and limited training will be beneficial in some cases, in order both to ensure that the adults possess both sufficient basic skills and understanding of specific assistive technologies. Given limited budgets, the evidence suggests that there may be greater value in providing targeted individual support in the home rather than laying on large-scale presentations for assembled parents;
6. The decision to restrict access to the Internet for all learners in receipt of this equipment needs to be reviewed urgently. In some cases, it may be necessary to impose strong filters on Internet access to protect individuals at risk from specific kinds of online contact, but in general the negative impacts of this policy appear to significantly undermine the benefits of provision, especially insofar as these restrictions limit access to learning resources, but also in respect of limiting crucial opportunities for interactions with peers and participation in appropriate networks. Such increased levels of access should be accompanied by clear guidance to carers and parents on how to work with learners to develop sensible online practices.

**1.** Introduction

The aim of this report is to explore outcomes and implications resulting from the provision of improved access to technology to a range of vulnerable and SEN learners. These learners have previously experienced limited, inappropriate or non-existent sustained access to ICTs at home, for reasons such as family circumstances (i.e. looked after children) and special educational needs. The report mainly focuses on the use and ownership of Internet-enabled laptops by learners who previously were not able to use their own, or in some cases any, computer at home, and is particularly concerned with the ways in which improved opportunities to use such technology support their learning. Such provision occurs within a context of access to other technologies that they might use in their own contexts, of course, and potentially leads to opportunities for wider kinds of technology-enabled activities, within the home and online.

The report addresses issues specified in the Performance Framework for the Harnessing Technology Strategy which, under the broad heading of ‘Narrowing gaps and supporting the vulnerable’, talks of how technology improves the engagement of disadvantaged groups and support vulnerable learners, and of systems to safeguard learners online and improve their wellbeing. Also particularly relevant to this report are the system outcomes relating to ‘Engaged and empowered learners’:

* learner entitlement is met with all vulnerable groups supported
* technology adds value to family and informal learning
* learners use technology confidently and safely to support their learning

Most relevant to the learners discussed in this report is the central system outcome of ‘Improved personalised learning experiences’. Clearly, there is a particular urgency to achieving this particular outcome in relation to those coping with specific learning difficulties, and the report will consider ways in which this aim is being achieved in the case of this particular sample of learners, and how it might better be achieved.

This report builds on the findings from the previous report from this project, Davies et al. (November 2009 [deliverable 3/yr 2]), which looked at particular at the experiences of learners without sustained access to the Internet in the home. These learners were entering the crucial stages of their secondary education, working towards their public examinations at 16+, and it was clear that lack of access to the Internet was significantly impacting, in largely negative ways, upon their educational experiences, to the extent that these largely mainstream learners were to some extent becoming more vulnerable, in terms of lost opportunity and increased stress as learners. Their experiences have alerted us to some of the problems that the learners discussed in the following report are experiencing also. Given the marked nature of difficulty and vulnerability that some suffer, these issues are all the more acute in their cases.

In discussing these learners separately from mainstream learners, we are acknowledging that particular effort should be made to ensure that those with exceptional problems or vulnerabilities are strongly included within the education system, and within wider digital opportunities in the present and in future. In this report, we will also consider the extent to which equity of provision, experience and outcome for vulnerable and SEN learners has to involve technology solutions that in various respects differentiate them from their mainstream peers.

The report has three sections. The first explores experiences of embedding technologies in the homes of vulnerable and SEN learners, beginning with the background to that provision, and then discussing how issues of safeguarding these learners have been addressed within that provision, the ways in which that provision can be seen to be improving their wellbeing, and the impact the provision has on family learning in terms of constituting a focus for supporting vulnerable and SEN learners especially. The second section focuses on the question of how the availability of the new equipment is beginning to produce results in terms of helping to engage and empower learning, whilst the final section moves on to discuss the important issue of personalised learning, and proposes ways of improving this further as the provision beds in.

# 2. Embedding the technology in learners’ homes

## 2.1 Background

The learners in this report had all recently received laptops as part of the Home Access for Targeted Groups (HATG) scheme, administered by Becta, for which up to £20 million of funding has been made available. Within this scheme, specific groups have been selected by Local Authorities (LAs) out of their particular priority responsibilities, such as looked after children. Each of 110 LAs received funding to be used to provide learners with a package of computer equipment and services, including Internet connectivity. The HATG funding guidance document (Becta 2009) suggests that ‘the vast majority of local authorities are increasing the provision of ICT at “home” for their looked after children.’ The document notes however that some LAs have programmes targeted at other vulnerable groups such as National Challenge schools, those with medical needs, very mobile learners, those with very specific and complex needs, and those on special supported programmes such as offenders leaving custodial sentences.

The data used in this report is taken from a selection of recipients of new equipment within three local authorities as part of their roll-out of the programme, and as such the report focuses on those targeted due to their ‘looked after’ status, including some children with specific special learning difficulties and those suffering from a visual impairment. Each of the three local authorities chose to roll-out their funding in slightly different ways.

### Local Authority 1 (South East)

Local Authority (LA) 1 provided Netbook computers to individuals, with three years of pre-paid Internet access via mobile broadband dongles set with a monthly download limit. A technical support helpline was made available to provide full support for any hardware and software problems. The laptops also contained a ‘NetIntelligence’ software that allows the carer to look at what their child has been viewing, what Internet sites have been visited, and view a record of conversations taking place on instant messenger. Before receiving their Netbooks, looked after children and their carers were required to attend a Home Access briefing, where they were given important facts about safe and appropriate uses of the laptops, basic instructions and information about insurance, the Internet and technical help, and were asked to sign an Acceptable Use Policy. The aims of the project were described as being ‘to enhance the educational opportunities, academic performance and attitudes to learning of children and young people in these groups.’ The computers were also described as a means of bringing the family together: a long term loan for the looked after child, their siblings, and their carers, and should be used ‘as a family tool’.

### Local Authority 2 (West Midlands)

LA 2 aimed to provide special support in order to aid educational development and provide unitary access to the school’s virtual learning environment This authority is targeting looked after children only with their Home Access funding. The equipment is under warranty and insured for three years. Rather than providing a Netbook like LA 1, they chose a larger machine configured with a broadband connection suitable for each home: they decided against providing Netbooks as they were concerned that children might take them to school and experience problems on account of being better equipped than other children in the school. LA officials took the views of carers into account when setting Internet restrictions, finding that most carers did not want their foster children to have access to social networking sites. Instead, the system that was instigated allowed the looked after children to connect to each other via the authority’s educational intranet, and to access the Internet through school servers; thus the same Internet restrictions were applied on their browsing as would be encountered in school. LA 2 held similar sessions to LA 1 where both the carer and looked after child were required to be present so that they could both sign a contract, and collect student and carer information packs. A separate session was also held for the carers to teach them how to use the CyberSentinel software to monitor what their children are doing and to protect them online. Each computer was set up with two accounts – one for the child and one for the carer. During the session, one of the organisers mentioned that ’the prime aim of this project is to support the student in an educational way. It is to help you when you come from school to home, you can continue to do the ICT work and your learning like any other person. … I emphasise, it is for educational purposes first and foremost. You'll be able to do other things with it, but let's remember what the basis of the kit is for.’

### Local Authority 3 (South West)

LA 3 bid for funding to provide computers to visually impaired learners aged 5 to 16 years old, as well as to support a number of care leavers. Each family received one of two available basic computer packages consisting of a desktop computer with a touch screen, along with some form of access technology (such as a set of switches); or a laptop or desktop with some form of specialist dyslexic software to provide support for typing (such as Read/Write Gold) and a reading pen to hear written words. Each family received an Internet connection in the form of a mobile broadband pen, or a broadband landline connection. LA 3 did not hold any roll-out sessions, instead employing a specialist member of staff to carry out individualised training with each family in how to use the new assistive technology. All families were invited to be trained with the new equipment, and the trainer was allotted a three hour session in order to train them individually on the new technologies (although initial setup difficulties meant that a large amount of his time turned out to be spent troubleshooting the basic equipment and connection problems). The training and troubleshooting carried out by this key member of staff was spoken about as extremely valuable by the families, as he was able to spend one-to-one time with the family and in a number of cases, used his knowledge of family needs to remove restrictions on the parental control software, and to download free software and games which he felt would be a useful addition for the recipient.

## 2.2 Safeguarding learners online

Given the difficult circumstances which many of the looked after children have encountered, and the expertise of their carers in dealing with ongoing complications arising both from their foster children’s lack of social skill, or problematic relationships with friends and family members, the issue of safeguarding is fundamental to setting up and maintaining the laptops, especially insofar as they are connected to the Internet. This issue was also, as we have indicated in the previous section, emphasised very strongly to carers and their charges in the processes of delivering the equipment to children by local authority officers and social workers. It is, for instance, generally advised to carers that machines should always be kept and used in shared family spaces, rather than in the children’s own rooms.

Margaret, Tyler’s carer, attended carer training sessions and support groups where she was given advice about keeping her foster child safe. She said that she pays close attention to Tyler’s use of the computer by controlling certain aspects of his computer use. She takes considerable care in this respect, due to the special educational needs that her foster child, Tyler (15), has to deal with:

*Margaret* it’s always here at the table. It doesn’t go upstairs... At times I will just stand behind him or I walk in and out, into the kitchen …

She also maintains an ongoing dialogue with him about these issues -

*Margaret* We use the word ‘safety’ a lot don’t we Tyler? Because Tyler wants to do some things that I can’t let him do and I always have to say to him that, well it’s safety and I have to make sure you’re safe. You know, he’s like to get on his bike and go for miles but um I sometimes have to say no don’t I Tyler?

- and recognises the importance of her role in the process of his learning to be safe:

*Interviewer* And have you learnt more since Tyler got the laptop?

*Margaret* Yes I have a little bit by just watching him and making sure that he’s safe on it, which I think is important. Well making sure anyone’s safe on the computer I think is … when they’re in my house I’m responsible for them.

Whilst Margaret closely monitors her foster son’s computer use, Tyler himself seems quite vague about what is involved in staying safe on the Internet: reporting that he should turn to a responsible person in case of problems that he encounters, he showed little understanding of what actual ‘dangers’ there are online, believing that if he should be ‘doing the right thing. Typing the right thing. Could get someone else... And if you do just tell someone and they’ll sort it out for you.’ It is clearly unlikely, as his carer very well understands, that – unlike mainstream learners - he is currently going through, or is capable of being guided through, a steady increase in the maturity of his actions that might normally be expected to lead to, and benefit from, the eventual freedom to use the computer alone in his room.

There are a wide variety of reasons why carers are not likely to grant such freedom, and why they generally support local authorities’ decisions to limit access to the Internet. The dangers of using inappropriate sites have been a major concern on the part of carers we have spoken to. Although some of the children use laptops with a variety of parental or other controls, these children sometimes gain greater freedom of access to the Internet on other machines such as a home computer or other people’s laptops, and sometimes this has led to highly problematic situations. In most cases, this appears to be a useful means of compensating for the restrictions on the machines they have been given, but sometimes this freedom results in serious problems. One of the teenage boys in care had accessed numerous sites with adult material without the knowledge of the carer. When this was noticed, his access to the Internet was discontinued. The carer and the supporting services have organised ongoing meetings with the school psychologist so that the child makes sense of these experiences. In his case, such support was indeed an indispensible condition to allowing him to access the Internet again because the sites he used may have been connected to an earlier experience of abuse:

*Carer* He's not allowed on the Internet at all. At the moment. … then it will be the same rules as this young man here. They're going to have it for just an hour a day … but if they’ve got homework they can use it - anything educational, they can use it you know. […] It's not going to change your life as much as your other one did is it because you're not going to be allowed on it all day long. No.

We encountered an instance of a child contacting or being contacted inappropriately by parents or siblings via the Internet. Carers also report problems of children involving cyber-bullying by schoolmates on MSN. In a previous report, Rebecca (aged 14), had explained that she was not allowed to own a mobile phone because of her foster carer’s concern about bullying. Subsequently we have encountered similar instances in different families. One of the carers, Cheryl, described what this meant to the girl in her care, Gemma:

*Carer* this girl was threatening her [on MSN] and then she had phoned her and threatened her, so I said, give me the phone, I will speak to her. I go told to exactly what to do... I did ring up [the school] because she was frightened to death to go to school. She did not want to go to school.

Dale (15) had experienced similar problems, and described his strategies of dealing with bullying:

...if anything happened that your conversation is always saved so you could always print it out and say this is what that person said … but I don’t speak to anyone inappropriate on there because what s the point? … you can block people though… you just press block and that - they don't know you're online.

Nonetheless, although many of the vulnerable and SEN learners with whom we spoke were likely to be at some degree of increased risk if granted free access to the Internet, the issue of safeguarding at the expense of enabling opportunities for learning how to use the Internet responsibly is quite complex, and is not necessarily solved simply by making this impossible. In addition to the obvious frustrations of not being able to use the Internet for all the many functions which it has in young people’s lives, which includes above all gaining and participating in the same experiences as their mainstream peers, these vulnerable and SEN learners are unlikely to make significant progress in learning for themselves about how to act safely and effective online. Kate, an 18 year old care leaver, received a laptop that had the same Internet restrictions as the machines given to far younger children, and found herself unable to use it for key activities, such as setting up her own home, that were crucial in the process of moving towards and gaining her own independence – something of considerable importance given that she was basically alone in the world:

*Kate* I'd just like to have some more freedom. Seeing as I'm 18 I'd like ... I was trying to shop for a bed online and it wouldn't let me on the website. And I needed to get a bed into the flat. So I can't do a lot on the Internet at all.

In a quite effective demonstration of this growing capacity to manage her own life, she reports that she herself rang up the local authority -

they said there was nothing they could do because the settings go across the whole ... and if they change it, they have to change it for the younger people as well. We couldn’t - which I didn’t understand why they didn’t split us into separate groups.

- and she herself understands very well the importance of being allowed the freedom to make mistakes:

The risk should be there for 18 year olds, you know, they learn from small risks. They should be able to have free access to the Internet.

In the same authority, Ashley, a 17 year old care leaver living a local authority home, had spent much of his teenage years living rough. He was delighted to receive his laptop, but also found the restrictions built into the use of the dongle to be inappropriate given his previous experiences:

*Ashley* if you say you were giving a laptop to a 15 year old, 16 year old in education in secondary school, you know, I can understand fully why you couldn't look at this that and the other. But when you're my age, I've seen most of what's out there anyway. […] I mean, I've seen women, I've seen drugs, I've seen guns, I've seen everything really …

Many of the young people that are being looked after by local authorities have encountered a wide range of difficult and sometimes dangerous circumstances in their lives, and those responsible for giving them what is, in many cases, first time sustained access to the Internet are faced with a real quandary in effect. These young people deserve both to be protected, and to have the realities of their lives recognised and engaged with. The Internet is a powerful means for helping them to learn about and participate in a world that, for some of them, has already proved considerably less comforting and safe than that experienced by their mainstream peers. Playing safe in providing this access is not necessarily the only or even the most effective means of seeking to fulfil the responsibility for safeguarding them as they begin to find their feet online.

As will be demonstrated later in this report, this issue of highly restricted online access also impacts on the learning of some of these young people. In the following section, though, we look at wider opportunities afford by this technology provision, in terms of the potential for improving learners’ wellbeing.

## 2.3 Technology improving wellbeing

The Children’s Plan (2007) identifies wellbeing and health among its central goals for young people:

Personal, social and emotional capabilities are closely related to educational attainment, success in the labour market, and to children’s wellbeing. (DCSF 2007 *The* *Children’s Plan* London:HMSO; para 3.87)

The report emphasises emotional wellbeing and good mental health as being crucial to young people’s development, and places the family at the heart of achieving this goal:

These capabilities are derived from a loving and supportive family and a breadth of positive experiences in childhood. Strong social and emotional skills are essential to success in life and work, but the evidence shows that children from disadvantaged backgrounds tend to possess them to a lesser extent than their more advantaged peers. We want to ensure all children and young people develop these skills. (*ibid*. para 1.70)

Inevitably, children with a history of family, emotional or medical problems must be considered at risk in terms of wellbeing. Whilst it would be absurd to view technology as having any intrinsic capacity to compensate for such problems, it is nonetheless reasonable to explore the ways in which access to technology resources can contribute to a more general process of improving a vulnerable learner’s life circumstances, including contributing to improved opportunities for learning which, as the above comments from the Children’s Plan indicate, may have significant long term benefits in terms of wellbeing. This section explores how the provision of dedicated technology for such learners is beginning to impact on their wellbeing.

Regarding looked after children, it is possible to conceive of impacts in terms of experiences of increased self-worth and belonging, staying in contact, participating in family life and social networks, opportunities for creativity, and improved physical well-being. Potentially, the possession of their own laptops might contribute to these things through a range of activities, including playing games, researching hobbies, engaging in digital art, listening to music, watching videos, or looking at pictures and images. Laptops provide children with new opportunities to play, create, and interact with friends and family wherever appropriate and desirable.

Being able to access the Internet may in part work towards improving the wellbeing of a learner, by allowing them especially to develop personal interests, express creativity and experience some degree of independence. A number of learners use their laptops for researching their hobbies. Gemma, who does a lot of horse-riding and even participates in competitions, likes researching horse-riding online and storing her horse-riding pictures on her laptop. She enjoys looking at her pictures and showing them to others. She also takes pictures of her pets and stores them on her computer. Jake enjoys researching pictures of airplanes on the Internet with his social worker. He stores the pictures on his laptops and looks at them for fun. He now can go on Google images and look for pictures he likes on his own. Likewise, one of the younger learners, Tania (aged 11), enjoys preparing photo collages with pictures she finds on Google images. She had prepared her own Valentine’s card by combining different shapes with an image she had downloaded. This is a potential link to her learning activities at school and, as such, a potential source of increased self-esteem and thus also wellbeing: ’I didn’t know how I could do such good things, but my teacher at school says that I’m really good at art, but this is not me drawing that, I got it off Word art. And also the last things I have is wonderful dogs, I can show you, which has got this beautiful dog, it’s absolutely happy about what it’s got and it’s got loads of character.’

The opportunity to stay in touch with friends and family was seen by a number of the looked after children as an expected benefit of having access to the Internet. In the case of looked after children who have experienced separation and have dispersed family or often move placement, maintaining older friendships is likely to be important to their wellbeing, and whilst many maintain contact by face-to-face or by phone. Some of these youngsters reported that they keep in touch with friends abroad, in other towns and from previous schools. Ashley keeps in touch with friends in the army in Afghanistan. Maria keeps in touch with her friends from several towns where she was in care and several schools. She feels much happier being able to do this now as she has her own laptop. Some of the looked after children we interviewed have several siblings and cousins who are in care in other families or stay away with their parents. Being in touch with them was often reported as essential and as joyful although in some cases, it had problems. Matt, who has four brothers and two sisters talks to them on MSN occasionally and also communicates with his mother.

In other cases, it was important for some of these young people to be able to take part in an ongoing communication after school which develops online. One of the teenage girls explained that when the weather is bad and they do not go out to meet their friends, being able to contact them on the Internet was important.

### The importance of social networking

Many of these learners aspire to participate in social networks, even though for some the restrictions placed on the Internet made this impossible unless they could do this via another machine or device. The generally high levels of reliance amongst teenagers and older students on Facebook is of course well-known, and this reliance was once again made evident when we spoke with a number of mainstream FE students very recently, who showed that they have each developed their own particular range of uses for site. Whilst one girl uses it to keep in touch with her boyfriend who lives far away, one of the boys explained that its role for him was to organise events with his wider social group – ‘instead of calling everyone up we just put an invite saying camping Saturday, and then everyone signs up to it and we just meet somewhere, so it just organises things’ – and to maintain one particular aspect of his social world:

*Mick* I think my friends that aren’t so close to me that’s what I use Facebook for, but (if) I’m close to someone I will text them.

Mick thinks of Facebook and texting as so important to his daily routine that when he was without his laptop for a few weeks he ‘felt kind of isolated. I could still call people and text them but it felt like something was missing.’ It should noted, though, that not all of these FE students were wholeheartedly approving of being dependent on social networking sites. One boy, Dave, claimed that he would rather be going out with his friends ‘than sitting on the end of a computer terminal and talk to them.’ Another boy, Joel, said he found it hard to make sense of social networking sites, claiming that Bebo ‘made his head hurt’ and that he wasn’t keen on regularly updating and responding to people via the Internet. Indeed, Joel noted that when he was without an Internet connection at home, he felt that he became more of a social individual, spending more time outside of his bedroom:

*Joel* Well actually like only a couple weeks ago my Internet died and I couldn’t go on anything at all. So at that point I was really annoyed. So I had to like mope about and read my books and I became semi-social for a while [laughs], and I went outside once in a while.

*Int*  So it was a blessing in disguise you’re saying?

*Joel* Yeah, well my mum calls the place I normally like hang out in my little cave, but I … so I guess she was quite surprised when I started to go out of my little cave voluntarily.

Not withstanding these reservations, the opportunity to use social networking sites, and especially Facebook, has clearly become an integral aspect of the daily world of these mainstream young people, which they can choose to make use of in whatever ways they please. Therefore, the decision made by the local authorities that we visited, to prevent the use of such social networking sites on the machines they distributed within the HATG programme, should be seen at the very least as controversial in that it inevitably marks out these youngsters once more as different and, to some extent, excluded. (It should be noted that one of these local authorities is currently reviewing their decision not to permit such access, for these very reasons.) Thus it must be considered that, in taking deliberate measures to ensure their safety online, these authorities are potentially taking actions which threaten another aspect of these young people’s wellbeing: their capacity to choose whether and how to participate in social networks in ways that do not mark them out as different from their peers.

For most of the young people we spoke to, it appears that the broader affordances of these new laptops were still being tentatively explored. They were being used for some degree of games-playing, usually of a slightly desultory nature involving educational (especially maths) games, the pleasures of which were likely to be quite short-lived. Some youngsters were doing some exploratory work with digital photography, and listening to music CDs on their machines, but were unable to download music. It appeared that these machines, because of their restrictions, were not yet affording increased levels of choice and control over how they spent their leisure time, and could not really be seen as significantly contributing to their users’ wellbeing in that respect.

But the potential of these machines to contribute to the wellbeing of young people with quite extreme levels of problem should not be underestimated. Kat (8 years) is a severely disabled, bed-bound visually impaired girl who is able to do virtually nothing for herself currently, and her mother has gone to considerable lengths to embed this new machine into the broader framework of provision which she has created for Kat, in partnership with the various professionals supporting her in looking after her daughter. The impact on Kat’s wellbeing is potentially considerable:

*Sarah (mother)* Firework night, we got this set up, and we managed to get it on the web and we were looking for firework displays. We struggled a bit... she’s always up very late at night, you see... and it was so lovely! ... My boyfriend came in and he managed to set up a big screen, full screen eventually ... we had all the sounds and everything, it was lovely! It was really good for her, really lovely! We had it sat on her lap and... just with a lap tray...

Whilst Sarah acknowledged that a good deal of adaptation on her part has been necessary in order to benefit from this new equipment, she also took care to make clear that she appreciates this provision very much, and understands that personalisation at this level has to be achieved within the home context, with close attention to the specific circumstances and needs of this particular learner. It was pointed out at the start of this section, it is misleading to suggest that technology in itself can be expected to transform the experience and wellbeing of any young person, but this example does show how a tool such as a laptop computer, if adapted to the needs of the user and used in appropriate ways, can be made to achieve benefits that could not easily be achieved otherwise.

## 2.4 Technology adds value to family and informal learning

The involvement of parents and carers is proving to be a key aspect of the process of enabling these vulnerable and SEN learners to benefit from their new laptops within the home contexts. Whilst we have shown in previous reports that parents and other family members very often play a major role in enabling and, in some cases, supporting mainstream learners in the process of embedding technologies into their learning practices at home, the particular circumstances of looked after children, and children with special educational needs, are likely to require a high degree of involvement from the adults in their lives in their learning activities in general, and in using computers for learning in particular. In the cases of the children with whom we have spoken, it has been very much the case that adults have indeed taken on this role, to the extent of often becoming quite extensively involved both in closely monitoring laptop-assisted learning activities, and sometimes in taking an active involvement in these, despite their own uncertainties about using technologies themselves quite often.

### Parents and carers developing their own technology skills

Whilst some parents and carers were already proficient in using technologies (with a number already owning their own), others noted that they had limited little prior computer knowledge to varying degrees. The experienced users of computers and the Internet were able some to change or adapt the technology used by the children to allow a wider access and opportunities for different uses. Such parents and carers have been valuable sources of advice and support to the young people in how to use technology, how to do research, and how to communicate, and tended also to be less anxious about safety issues, installing their own version of parental controls which they considered more effective that the ones provided with the laptops. Some carers knew how to shop and do Internet banking, even if they were not particularly experienced or expert users. These were able to offer advice to learners about how to engage in such activities themselves. However, in most cases, where there were teenagers in the families, these were sometimes the computer and Internet experts at home and in some cases they were able to offer help to the carers.

*Joy (Mother)* I’m not that... I mean I can use a computer, we’ve got one, but... I’m not brilliant on it, put it that way. It takes me a little while, but I usually get there in the end. […]I suppose what he could do when he starts doing coursework and stuff.. have a memory stick.. I guess and put it on that and then bring it over and put the memory stick into his computer I guess. That’s how it works I think {laughs}... As I say, I’m not right up in it.

*Philip’s mother* Because we’ve never had a computer, we don't know how to use it. … I'll be looking into doing a computer course... so that we can have a bit more knowledge.

*Philip’s father*  And the problem that we've got, this is the first time that we've ever come across a computer, so we're a bit computer illiterate.

In many cases, the specialist nature of the equipment and software provided to SEN learners posed an additional new challenge for families, requiring specialist assistance. In one local authority providing laptops to children with visual impairment, a trainer was employed during the period of roll-out of the machines to teach the families about the new equipment. He noted that the training carried out actually often involved teaching families the basics of computing practices due to significant amounts of parents ‘who didn’t have any computer skills at all’. The trainer explained that ‘I was brought in to do specialist training but actually if someone’s got no experience it’s pointless training someone in how to use you know, text help Read/Write Gold when they’ve got no idea how to navigate around the Windows desktop.’ Indeed the success of technological provision is dependent on the training of those who will be assisting the SEN individual in their use of the computers and thus this training appeared to play an important role in migrating the machines into children’s home lives. One of the carers expressed a concern however that training her son on the software at only one point in time would not be enough, and the trainer himself worries that this dependence may potentially cause problems in the longer term, with less confident parental users feeling reliant on his training skills:

*Trainer* But it is also being the trainer involved in the project, you realise how important training is. Also how difficult it is. Because as soon as you start to train someone, you actually then give them a dependency in my experience on training.

The new equipment appears to have increased motivation on the part of the parents to learn how to use technology in order to support their child’s learning, some of whom previously classed themselves as ‘a bit computer illiterate’. A number of parents took up the opportunity to learn basic computer skills from the trainer, who believed in the importance of bringing the parents up to speed with technology so that they could share their knowledge with their children and in turn benefit from their own use of the computer:

*Trainer* Talking about the whole thing about the resource for the family because if I can come in and motivate parents then that's going to spill over for the children. So I'm trying to... tackle the narrow kind of focus in just training the particular software, then... you know, that's great, but I just wonder if that's going to benefit in the long run. Whereas if you can bring the parents in and show them particularly the potential of the Internet and how the Internet is moving along and what you can get on it now, then...

This was the exception, though, as in the other authorities it was not possible to provide any training outside the initial introduction session, and the minimal set-up information provided by online help. So the parents and carers had for the most part to learn how to improvise, and draw on varied sources of expertise – an approach which is of course typical of what goes on in most homes.

### Ways of helping children to use their laptops for learning

*Claire (carer)*  It’s only 5 minutes a time ...

What marks out the kind of support these parents and carers give their children is the awareness that the children in their charge require special kinds of consideration and attention. This involves both greater than normal time commitments on their parts, but also a clearer sense of where and how to draw boundaries, so that these children can make progress under realistic conditions.

With children often unable to carry out independent learning, carers and parents of SEN learners frequently discussed how they help structure their child’s use of the computer through setting time limits, helping to find information and spelling. For example, one carer of an SEN child explained how she works with him in using his laptop to help deal with his short concentration span, poor reading capacity and eyesight. Margaret, the carer of Tyler (15 years), explains that due to his reduced concentration span, she has to ensure that regular breaks are taken when on the computer, and she has to play a direct role in helping him to read the information onscreen so that he can interact with the computer:

*Margaret* Well I do encourage them after half an hour to have a break because I noticed that Tyler was right down. He does have glasses which he should have on now really. Where are they, Tyler?

Her engagement with his learning extends considerably beyond helping to use the computer. She has come to understand that his progress as a learner is primarily dependent on his ability to read, as well as on his wider health and wellbeing:

*Margaret* … it’s only since he’s been here over the year that his reading has really improved, hasn’t it Tyler? … Unless he learns to read, um he can’t use the computer properly, you know. I should put your glasses on Tyler if I were you. … He has a memory problem. And he’s just … um and there’s no heading, he just has learning difficulties. But he’s good in some things. I mean in his book he brings home from school, he loves cooking.

She ensures that he benefits from wider participation in her own family, providing a context that extends both his social interactions and his familiarity with using his laptop:

*Margaret* To give Tyler a chance to mix with teenage boys of his own age [her daughter] had him on a Sunday and he takes the laptop sometimes with him. And [my] eldest grandson who is nearly 21, he helps you with it doesn’t he Tyler?

Margaret’s grandson also helps Tyler with with activities that are possibly out of his reach unaided:

*Int* how do you find music for it?

*Tyler* On here, on the internet, but I don’t know how.

*Int* So who downloads it for you?

*Tyler* Geoff.

*Carer* My grandson.

*Tyler* He’s got a laptop and he does it on his, because he knows how to.

She also makes an effort to integrate her activities with what his school is trying to achieve with him:

*Margaret* … knowing that he uses the computers at school um, and they want to encourage him to improve his reading, I thought, well we could actually work together, the school and myself and Tyler. Um, but it’s going to be slow, as you can see, but I think we’ll get there in the end. It’s going to be a challenge for all of us isn’t it?

Tyler is by no means an intuitive user of technology, and it is probably the case that he is less able than mainstream peers to develop his uses through the typical trial and error approaches of his age group:

*Int*. … how was it not to have a computer at home?

*Tyler* Easy [laughs].

*Int* Do you enjoy trying different things on this laptop?

*Tyler* Yeah. But most of the time I do it wrong.

In the case of Kat who, given her multiple profound disabilities, is likely to have a largely sensory experience of the computer for the foreseeable future, the role of the family and support staff is absolute essential in order to create a context for the kind of learning that she is capable of benefiting from:

*Sarah* She can’t move around it now, but we’ll help her. If you activate something that makes a noise, it’s an association net for her, because she knows that she’s touched it. And of course, having worked with a similar thing in the past, before she fell really poorly, I absolutely believe that she realises that she’s doing it.

The reality of this situation is that the laptop is simply one element out of a number of resources and technologies that are being deployed in order to sustain Kat and give her a good range of experiences, both in the form of emotional support with the involvement of her mother and other carers, and in terms of learning opportunities afforded by interacting with the technology. Nonetheless, Sarah is very clear that the laptop specifically represents an important catalyst for moving these opportunities forward, and one she appreciates a great deal:

*Sarah* But it’s brilliant, so we’re trying to build it more into her sort of teaching and stuff... Just give her a bit more of an activity, so we’re thrilled to bits... You know, what we need to do, we need to perhaps print off the odd thing... and that’s where the teachers can help us. So that we can ... it’ll be predominantly her main line... tool of... helping her really, giving her activities and stuff.

As was indicated above, a number of the parents and carers felt it would useful to communicate to some degree with their children’s teachers, for instance in helping to identify areas to search for on the Internet, and to develop activities with the computer that will keep learners interested, although it does not seem that such partnerships have been widely established as yet. There was also no evidence encountered of specific communication between the home and the school regarding consistent use of specific assistive software between home and school. Neither was everyone yet able to interact directly with the school via the Internet, presumably because these opportunities had not been either fully developed, or clearly communicated to parents and carers:

*Georgia* … nobody’s ever said anything [about a school learning platform], and I did sort of write to the teacher, or put a note in the book to the teacher to say, what do you think … you know, let us know if ever there’s anything that you feel that needs to be looked up or anything you want us to do. I mean we haven’t set an email address up yet but we will do. I have to get advice on that. And then yeah there’s nothing to stop that happening, and even between her and school, even if it’s a teacher …

Overall, it appears to us that the active involvement of parents and carers within the home, working directly with learners, has formed an important element for many of them, and certainly for those with the most serious cognitive or emotional difficulties. We encountered parents and carers engaging in a wide range of activities in order to support the special educational needs of learners in their care to interact productively with the equipment, by monitoring their activities and setting limits, spelling and reading out words, helping to use search terms and downloading music and games onto the computer to keep the children occupied. Linda, one of the carers, is quite explicit about seeing her role in the long term as providing the kind of supportive context that will eventually enable her foster child to become increasingly independent in her learning:

*Linda (Carer)*  …you do go on Google and look for things, don’t you? If she asks me a question or something, then I’ll say: you know, well get your laptop and you can put that in and find the answer yourself. And you do things like that, don’t you? Sometimes she gets the spelling wrong, so we have to help her, so instead of her asking me and me telling her, we make her use the laptop to research it herself and things like that. So hopefully as she gets older and she gets homework from school, she’ll know exactly what to do instead of having to keep relying on us. To actually get the answers.

As was often found to be the case in the homes of mainstream learners that we have visited previously in our research, a learner’s computer can sometimes become a point of focus around which conversations about learning can take place, and a means for monitoring and supporting learning as time goes on. In giving laptops to young people that are presented explicitly for the purpose of supporting their learning, it may well feel to parents, and to carers particularly given the semi-professional nature of their care responsibility, that there is a particular onus upon them to engage actively in helping their youngsters to make the most of this opportunity. Whilst it is inevitably the case that they would wish to present a positive picture of how these machines were being used to researchers, we believe that the evidence of what is going on in the family context was sufficiently detailed and specific to offer a credible picture of largely positive practices becoming established by the families in these homes as a result of receiving this equipment. (The ways in which families cope with the learning demands of what for some are new technical skills will be focused on further in the next stage of our research with these learners, when we will be able to observe how the equipment has become embedded into home practices over time.)

# 3. Engaged and empowered learners

It’s more fun and stuff... Yeah, and like I’d rather do it on there because … you can play like sort of like activities and games and stuff but like you’re learning at the same time. And it’s like better… if you just sit there reading and it could be boring like. [ET, female, aged 14]

The comment above from one of the mainstream learners whom we interviewed at an earlier stage of the present research represents a very common picture which we encountered of teenaged learners working with computers at home, and is open to two quite contradictory interpretations. The first sees the opportunity to play online games or chat on MSN at the same time as doing homework as harmfully distracting to young people. This is, of course, a fairly common and understandable complaint from parents. The second interpretation suggests, on the other hand, that it can be quite productive for some learners – those who are used to multitasking at least – to do work under these conditions. As ET says in the comment above, it reduces the boredom and makes working feel more like fun. What is more, this happens in a context where the very medium that might distract them also gives them access to all the information they need for their work. Learning to balance these conflicting temptations and obligations is part of learning to handle the freedom of choice that most young people must learn to cope with online.

Because of the constrictions placed upon their uses of the Internet, the youngsters discussed in the present report were for the most part not faced with such choices, or with such freedom. In most cases, it appeared that the new laptops had rapidly made a significant impact on how they spent their time and most significantly on the ways in which they were now able to do schoolwork at home. Given that they were not able to use them for many of the purposes that mainstream learners constantly used their own machines – communicating with friends, social networking, downloading music, playing online games, viewing TV and YouTube – this is hardly surprising. What is very interesting is the fact that a good number of these learners did not strongly object to this level of restriction, or find it unreasonable:

*Anna* I understand really because they gave it us for like.. learning purposes, not for fun. Because I’ve got my GCSEs, the girls had their SATs in year 6 and that … So we use it for that.

When they are able to use the computers for activities other than schoolwork, this often tends to involve exploring more informal educational resources and activities across the school or local authority intranet. Tania, 11, plays a considerable number of maths games online with other children from her school - a fundamentally educational experience that was not possible before she got her own laptop. She plays on the Mathletics website where children can challenge each other online. Under the supervision of her carers, she is gradually encouraged to play at a higher level and thus is potentially developing her maths skills.

Such games constitute one of the few ways children can find for using their new laptops, other than for work. In the case of the younger ones, when homework is still relatively rare, it appears to be something they do quite often when trying to make good use of their new laptops. The older children, on the other hand, are able to engage in more focused educational activity. Anna (15) plays maths games on BBC Bitesize and considers that this helps her with her work – she is preparing for the GCSEs in this way:

*Int* Is your work better in any way?

*Anna* It is like in some areas. Like maths it is because I can [do it in my own time]... cause [the home] computer is not always free...

*Int* What about other subjects?

*Anna* English... yeah, cause there’s online tests that I wouldn’t normally do... but cause... I’ve got this, I can go on it at any point. I just go on it like when I am not doing anything else, I can just go on this.

Two other girls working towards their GCSEs found their new laptops indispensable for their exam preparation. One of them said that she feels more comfortable with maths – she spends some time almost every day on MyMaths. Dale describes how his motivation for learning may have increased when he received his own laptop:

Well when it was comes to like homework, because I just had to just really catch up quickly to do everything really quickly. It did motivate me at the same time, but … I was just sort of having a bit of an argument with the school saying you know you can't expect everyone to have a computer or a laptop. And it's like well use your lunch and break time and I was like well I don't … when I am supposed to go on my lunch and break.

The opportunity to take time using the computer to do schoolwork at home, rather than rushing this at school, is of course one of the important benefits of ensuring equitable access to technology at home. Children without Internet connections at home who were interviewed in 2009 discussed the difficulties of findings ways to access computers in settings other than their home. These learners mentioned a number of problems: for example the time restraints imposed on computer use due to school closing hours or parental rules about travelling around town, limited opportunity to carry out ‘fun’ activities to help them re-establish their concentration levels, and the problems often discovered with online research due to excessive filtering. Unconnected learners also discussed worries that work completed in school has to be rushed as they are not able to complete it at home, and thus it can end up at a lower standard than they feel they are capable of, and even unfinished in certain circumstances.

The provision of their own laptops changed things considerably for many of the looked after children that were interviewed. Michelle, a recipient of a new computer previously had to share a laptop with her younger brother, Tom. Now that Tom also has his own laptop, she is able to work more independently on her own machine. Claire, Michelle’s carer, points out that the opportunity for Michelle to do schoolwork at home now saves her from getting into trouble when she finds she has not had enough time in school to complete her work during lunchtimes:

*Claire (carer)* Her reviews – every review – most of her subjects were pretty good and obviously they’ve improved since she’s been here, but with her maths homework it was being delayed or not handed in. So I had to sort of stick up for her because it wasn’t Michelle’s fault! It was because we hadn’t got a computer then. So she was put into the – at lunchtime and break-time with no computer to work on so of course she wasn’t doing it. You don’t get into trouble now do you? … it’s quite ideal because if they’ve both got homework and they are both on the computer […]

*Michelle* So it’s good that we’ve got the two, as Tom can focus really well on what he wants to do – what he’s doing. I focus on what I’m doing.

For others, the new machines provided the child with their first interactions with a computer (often due to their very complex needs, and the parents or carers not allowing access to their own devices). Tyler for example is a looked after child who was not allowed access to his carer’s laptop because as Margaret notes, ‘we’ve had so many problems with young people on my computer, because I’m not just a carer I work for Social Services and um if anything goes wrong then I’m not able to use it. But this is why it’s good that he’s now got his own.’

Interviews with the 14-15 year olds in 2009 clearly showed how important a part internet-based research plays in doing schoolwork at home, typically using resources such as Google, Wikipedia, Ask.com, and Internet sites bookmarked by the school homepage such as Bitesize and LinguaScope. Students felt that having the ability to do this in their own time is beneficial to their learning, for example by helping them to revise for exams, making homework easier, and providing English literature texts that they do not have access to at home. In a similar way, quite a few learners who had just received their own laptops recently through the HATG scheme also reported using them to carry out Internet research at home. For example, Sam, 11 described how she engages in online research more often and enjoys it:

*Sam*Yeah. Research things for homework like ... say for science ... cause we’re doing vertebrates and invertebrates in science and we had to go on this website and research invertebrates and vertebrates and where they lived and their habitats and that they looked like and all that.

*Int* How would you be going about doing this research?

*Sam* I’d go on Google and then I’d type in.. what I was searching for.. And then you know you get that big long list.. I just kind of click on it and if it wasn’t what I was looking for, then I’d go back and click on the next one and then if I didn’t find it, then I’d go back to Google and type something different in.

*Int* So how do you know which words to select? Because that can be difficult sometimes, can’t it? To know exactly what to put in?

*Sam* Yeah … If I was ... for French cause we were ... researching the ingredients for croissants … I put into Google ‘croissants’ and then if I didn’t get what I wanted, I’d put ‘ingredients for croissants’ and give it kind of a clue what I was on about.

In some of the new cases of learners who have just received new equipment at home, children have begun to use school learning platforms while in the past they have not done so. For example, Jake has begun to work online on exercise sheets and homework distributed electronically whilst in the past he had not submitted homework over the Internet or had to go to a friend’s house to do the homework there. He prefers to be able to do his homework from home. In certain settings, though, there was not even the option to restrict Internet use to study purposes – sometimes the restrictions made even this impossible:

*Adam* Sometimes for schoolwork, some of its filtered, when you type in stuff for school.

*Kate* I type up work a lot. I can’t really do the research to go with it though.
*Int* So it’s not even ... the internet connection is not - *Kate* - no, not really any use.
*Int* And have you ever got anything through the Internet from it? *Kate* No, not really.
*Int* Does your college want you to use the Internet?

*Kate* Yes. They have a portal they want us to go on each night to check our emails and they also want us to go on and access work. And I can’t ... there’s also lots of clips and things that you click on, and I can’t because it doesn’t let me click on them because it doesn’t let me on to the website.

*Kate’s friend*  You can’t do a course without the internet now.

Ashley, 17, (a care-leaver like Kate) was glad that he could do more research with the laptop he received: ‘the computer's helped me with that as well, because I can research more’. But like Kate, he found that the restrictions prevented him from using the Internet to research his driving desire to join the army. Unlike Kate, though, he had access to friends who showed him to evade the restrictions: ’Without the dongle ... when I've got on the internet, I can research all about the army and about the careers... If I typed in something ... the dongle doesn't let me through … It's classed as looking at weapons.’

But, as we have said, many of these learners felt able to live with such problems, because these machines represented something very significant in their lives:

*Ashley* I was never brought up round a computer, my laptop upstairs is the first time I've really used the internet or any laptop or anything like that […] It was brilliant because ... I've never had anyone give me anything really … to have someone just give me something was like ... WOW, you know … Just that to me means quite a lot to me because that has been given to me and I'm grateful for it. … I'm cracking on with it.

Ashley says that he is developing a wide range of IT skills which recognises as fundamental, and previously were not open to him, astutely recognising that the opportunity to engage in a wide range of activities is a fundamental part of developing habits that most youngsters take for granted:

*Ashley* with the laptop now, I can get on there I can go through the Internet, I can send an email, I can write a letter ... I can use all the little programmes, like Word and everything, I can … I've never used the internet chat sites or anything like that.

*Int* No, which obviously lots of people spend a lot of time at, Facebook and that ...

*Ashley* Yeah, that's why they're quick with their typing

And he recognises very clearly how important such skills are to his future aspirations and success:

*Ashley* I dressed up really nicely yesterday and the woman there was really impressed because I'm really organised with all my CVs and everything, the lot. And it took me a long time to learn even how to just send a CV in by email. I'm just slowly working it out. But I felt quite embarrassed when I failed that [typing] test, but it's not going to get me down … I spent three hours on my computer last night typing up an … old hunting magazine that I was reading.

For Ashley, his laptop represents an opportunity to better himself and, whilst it is new and novel at least, he is exploring that opportunity in many different ways. It is a genuinely unique experience, as far as he is concerned.

# 4. Conclusions: improving personalised learning

The concept of personalised learning is not easy to pin down, and perhaps necessarily so, because it would be unwise to promise levels of individualised provision that cannot hope to be fully realised across the education system. In 2004, David Miliband said that personalised learning involved ‘high expectation of every child, given practical form by high quality teaching based on a sound knowledge and understanding of each child’s needs’[[1]](#footnote-1), and the TLRP document in which this was quoted also suggests that ‘Providing learners with opportunities to bring together their learning experiences inside and outside school is an essential part of personalising’ their learning (p. 15). These perspectives are clearly of considerable relevance to the concerns of the present research. In effect, personalised learning should minimally involve making whatever efforts are feasible and appropriate in order to understand an individual learner’s strengths and needs, and to make the best of any opportunities available for developing or improving those, in the school, in the home, and between the two.

This is an important issue for all learners, and it is clear from our work with a wider sample of mainstream learners that their access to technologies for learning in the home offers considerable potential both for self-personalised learning (in which the learner has improved management of and access to resources and ways of working), and for synergies between home and school. In respect of the learners discussed in this report, issues of personalisation are arguably more acute and urgent, but perhaps easier to specify. The provision of technologies in the home for vulnerable and SEN learners should aim to improve personalised learning with respect to the following issues at least:

* access;
* usability;
* empowerment in terms of enabling and supporting:
	+ formal learning at home and through online communication with the school;
	+ the exploration of personal interests;
	+ the pursuit of personal goals;
	+ the development of social relationships online.

In terms of usability, there is clearly scope for further improvement with respect to some of the instances discussed in this report. Clearly, considerable effort was being made in local authorities to provide equipment and software that was broadly suitable, and it is perhaps asking too much to expect that the specific needs of each individual could have been met straightaway, during the initial roll-out. As was noted in Section 2.1 of this report, visually impaired learners were provided with one of two computer packages that were felt to be appropriate for their particular requirements, but families discovered that they needed to buy new hardware add-ons, or seek further assistance in order to help their children use the computers successfully. The trainer supporting the roll-out to visually impaired learners noted his concern that there were ‘a lot of students who were given one package who actually needed something which supported their learning a lot more’. Also, one of these learners discovered that he lacked a headset for his computer, as the text-speaking software he used was not intended to work through loudspeakers:

*Joy (mother)* He can do it without [the software] but I think... that would definitely help him with his school work when he’s got to research on things. ... he finds it hard... sometimes he’s got to call me in: ‘what does that say?’ You know, because he can’t see it. So if it’s reading it out to him ... it’s going to be a big help there.

Kat, with her multiple profound learning difficulties, had been provided with a laptop and a number of switches which her mother Sarah was still learning how to use and program to suit Kat’s needs:

*Sarah (mother)* We’ve got the laptop and we got a couple of switches... we’re still learning about the switches if I’m honest, but because they’re not always for her... you’ve just only got the ability to press yes or no. But we have to help her. Whereas a mouse, she can move it about the screen.

Sarah was well aware that arriving at an appropriately personalised technology set involved a process of learning for everyone over time, and it is certainly the case that personalisation does require an ongoing effort to help users work with and understand the potential of the equipment with which they have been provided, as was also suggested earlier in the report with reference to the personal training that was provided within one authority (the authority, in fact, that was supporting Sarah with Kat).

Whilst sharing a number of the same practical concerns as looked after children and their carers, it seems that the more complex nature of difficulties suffered by visually impaired children means that their computers and devices inevitably need to be quite carefully personalised in certain respects in order to be fully accessible and usable, both for formal and informal purposes:

*Int*  So when it comes to typing, can you type on your own or…?

*Louise* I might need a hand; I can’t really do it on my own.

*Georgia* *(carer)* What do we usually do?

*Louise* You have to click on… so you have to click on the web so you can get the typing.

*Georgia*  Yeah, so you can get the programme. What do we do then so you can actually do the typing; what do we have to do?

*Louise* You have to make the screen bigger don’t you?

*Georgia* What do we do with a pen? (*Louise*: You write it) We write it down don’t we, and then you…

*Louise* I copy it.

Louise would have preferred the laptop keys to have been large enough for her to see and work with accurately, and her carer suggested the same in terms of a larger screen – a standalone computer complete with large screen monitor would have been better than the small laptop provided. Whilst her carer did know of an option of a touch screen computer she felt this was unnecessary due to Louise’s level of mouse skill. It is clear, from the generally positive reactions of the young people we have spoken to in preparing this report that the provision of laptops has generally gone a long way towards meeting the broad range of their needs. In some respects, it may be that these vulnerable youngsters are in fact receiving a genuinely personalised experience, actually by virtue of being denied the freedom to participate online that mainstream learners take for granted. It is not necessarily the case that ensuring fair and equitable provision can involve giving everyone what they want, and there are clearly difficult choices to be made when it comes to online risks to some vulnerable learners. But as this report has attempted to show, the price of denying these learners the same experiences that their peers take for granted, in order to protect them from risk online, is very high. There are possibly various criteria underlying the decision to impose widespread filtering on Internet use of vulnerable young people, and it might be helpful to discriminate between the need to deal sensibly with the risk which all people face of encountering inappropriate material online – which might involve education rather than prevention – and the very real need to prevent a relatively small minority from being exposed to the potential attention online of abusers, both known and unknown to them.

In summary, we would suggest that the evidence we have gathered so far suggests that, in the terms proposed at the start of this section, a great deal has been achieved already, through the HATG scheme, in achieving access. There are still problems in terms of usablity in some respects, such as in the provision of inappropriate hardware and software to learners with specific learning needs, and in other respects not discussed in this report (for instance, the use of dongles failing to provide adequate Internet connectivity). But the purpose of this report is not to evaluate the HATG scheme, but rather it is to learn from the users of this equipment about how they can be enabled to make the most of having high quality ICT available in their homes for the first time. Thus we make the following tentative recommendations, which will also guide our subsequent work with these same learners when we meet with them again, one year on from their initial receipt of the equipment.

### Recommendations

1. The evidence suggests that the provision of ICTs in the home has already achieved considerable benefits to vulnerable and SEN learners, and every effort should be made to continue to achieve the fullest possible coverage;
2. In terms of learners with specific learning needs, the provision of hardware and software that is appropriate to those needs is an essential opportunity for ensuring effective personalization of learning;
3. There needs to be improved communication between home and schools to ensure sufficient levels of co-ordination between uses of assistive technologies in the two locations, so that learners have consistent experiences and are able to make the most of the technologies they have at home;
4. There needs to be strong communication between home and school also to ensure that those with learning difficulties especially, and their carers, are given clear guidance from the school on productive learning activities that they can undertake in the home with their new equipment; it is not sufficient to expect them to discover worthwhile applications of the equipment unaided;
5. Parents and carers of learners with special learning requirements play a crucial role in helping their children to make the most of their new ICTs, and limited training will be beneficial in some cases, in order both to ensure that the adults possess both sufficient basic skills and understanding of specific assistive technologies. Given limited budgets, the evidence suggests that there may be greater value in providing targeted individual support in the home rather than laying on large-scale presentations for assembled parents;
6. The decision to restrict access to the Internet for all learners in receipt of this equipment needs to be reviewed urgently. In some cases, it may be necessary to impose strong filters on Internet access to protect individuals at risk from specific kinds of online contact, but in general the negative impacts of this policy appear to significantly undermine the benefits of provision, especially insofar as these restrictions limit access to learning resources, but also in respect of limiting crucial opportunities for interactions with peers and participation in appropriate networks. Such increased levels of access should be accompanied by clear guidance to carers and parents on how to work with learners to develop sensible online practices.

# Appendix: Information about Vulnerable and SEN Learners discussed

All names have been changed to ensure anonymity of individuals:

*Local Authority 1 (South East) Looked After Children*

Tom (11) and Michelle (13); Carers Keith and Claire

Jake (12) and Matt (14); Carer Sylvia

Maria; Carer Sandra

Tyler (15); Carer Margaret

Dale (15); Carers Chris and Mary

Louise (16); Carer Georgia

*Local Authority 2 (West Midlands) Looked After Children*

Tania (11), Sam (11) and Anna (15); Carer Linda

Gemma (15); Carer Cheryl

*Local Authority 3 (South West) Visually Impaired Learners*

Philip (7-8); Parents Sharron and James

Kat (7-8); Mother Sarah

Adam (12); Mother Joy

*Local Authority 3 (South West) Care Leavers*

Ashley (17)

Kate (18)

1. quoted in Pollard A. & James M. (Eds.) Personalised Learning: A commentary by the Teaching and Learning Programme. Autumn 2004, p. 5 [↑](#footnote-ref-1)