

# **A DISCOURSE ON BROADBAND TECHNOLOGIES AND CURRICULUM ACCESS IN ELECTIVE HOME LEARNING**

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## **Abstract**

The extent, to which broadband technologies are being considered, when accessing the curriculum, is increasingly evident in traditional learning environments such as schools and colleges. This article explores the impact that these technologies are having on the home schooling community by offering enhanced access and opportunities. It suggests that they have generated improved choices and greater freedoms for learning communities. They have shone a light on the curriculum and removed it from the shadows. The curriculum is no longer the preserve of the educational establishment. The “secret garden” has been breached by technologies such as broadband and the democratisation of the curriculum is progressively evident as more diverse learning communities are given increased access and control over the curriculum. The author asks how this is being reflected in policy and translated into practice by the home schooling community whilst acknowledging the contemporary nature of broadband technologies and how they are influencing the decision making process of potential home schoolers. Looking to the future, the author suggests that the political agenda is not providing clear direction and that this is being determined by social reform outside the political sphere and largely driven by the consumer. In this case the learner. The relatively current nature of this debate is in itself justification for further research if we are to develop a clearer understanding of how new technologies such as broadband are influencing policy and practice in the home schooling community.

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The broadband revolution of the past decade has had an immediate and measurable impact on a wide spectrum of key social, political and economic issues. Education has been part of this and the ongoing effect of this technology is still being assessed and evaluated as a

concern in educational research. The relationship between both learner and the technologies, as well as the teacher and the technologies, has been central to current debate. One aspect of this is how the availability of broadband access has impacted the nature of the debate with particular emphasis on the elective home education/distance learning sector and not the established state or private providers. Examining both the advantages and disadvantages that broadband has brought to these communities and how this is reflected in contemporary research will give us an opportunity to scan the horizons of home education and see what future discourse and policy reforms may lead to in the short and medium term.

### **Defining elective home learners and distance learners as a community.**

It is legal in the United Kingdom for a child to be home-educated (Regulation 9 (1) (c) Education (Pupil Registration) Regulations 1995).

The traditional school environment no longer represents the sole place where the curriculum can be accessed. The internet has given the curriculum a globalised status that offers universal and potentially unlimited access to its users. Evidence suggests that more and more stakeholders are choosing to access the curriculum from home (Lewin, Mavers, & Somekh, 2003).

The Department for Children, Schools and Families estimated that in 2006 approximately 20,000 home learners were known to local authorities but they concede that the number has probably risen significantly since then. In 2007, Channel 4 News mooted a figure of approximately 50,000 pupils being home educated. Feely and Hill suggest between 25,000 and 150,000 (Hill A. , 2000). Elective home learning is no longer an educational option dwelling on the fringes of society where it can remain a relatively unaccountable statistic. The social, political and economic pressures that are increasingly placed on schools today mean that more and more people are choosing home schooling as an option despite the

limitations of local authorities and central government to provide effective support such as resourcing and data management.

Home schooling is now an option taken up by a significant minority (Henson, 1996). At the same time more people are becoming aware of the availability and potential of broadband access in the home and in public places. This has been driven largely by a trend of increasing affordability and improved regional availability. Although access and opportunity are not yet universal and remain issues that need to be addressed (Foundation, 2012), broadband is now recognised as “the fifth utility” (Becta, 2008) and its future impact on learning in the home is inevitable and increasingly predictable. Having said that it is also important to recognise the digital divide that differentiates between those who can access such technologies and those who either cannot or choose not to (Lewin, Mavers, & Somekh, 2003)

Although the Elective Home Education Guidelines for Local Authorities (DCSF, 2007) recognise numerous reasons for choosing elective home education including access issues as well as bullying and special educational needs, it fails to recognise the significance of other more current factors. These include the increased demand for personalised learning pathways, and an increased recognition of the benefits of de-standardisation (Robinson, 2008). Contrary to earlier thinking, Rothermel concluded that home learners demonstrate high levels of attainment and good social skills (Rothermel, 2002). This would suggest that personalised learning, free from the constraints of an established system, that is largely outcome driven, is both functioning and possibly thriving in the home learning community.

Broadband can provide a unique opportunity to address many contemporary learning needs in post-modern society such as improved personalisation. The potential to personalise the curriculum more efficiently for home educated learners is greater than ever; access to a

constructivist model will allow users to determine the educational pathway that they may wish to follow. In contrast to this it could be suggested that traditional class sizes will set the learner in a more de-constructivist environment and as schools' resources become increasingly stretched due to the nature of contemporary, neo-liberal economic policy, the option of home educating will become both appropriate and cost effective. Evidence of schools investing in Virtual Learning Environments as learning platforms for their students already demonstrates recognition of the value of curriculum access in the home. Broadband provision means that home learning can potentially be re-defined on a sliding scale that will include traditionally schooled students who will be involved in private study outside school time, through to full time home educated learners who will not be attending a school thus moving away from the traditionally polarised perspectives of what the home learning community represents (Bullock, 2011). The learner is increasingly becoming empowered through choice. Increased affordable mobile technologies such as smart phones and tablets are increasingly giving users the option to access online technologies.

Home learning will become an increasingly significant feature of the educational landscape in the 21<sup>st</sup> century (Petrie, 1992). Resourcing schools has become increasingly difficult as funding is stretched beyond the capacity to provide even minimally adequate provision in some smaller schools. The impact of school closures and of merging and federating schools should not be underestimated. Evidence of this evolution is already apparent in the current policy drive to convert schools into academies or free schools and encourage federation at the same time. These are policies that promote free market values such as acquisition and growth with an emphasis on economic reform rather than the traditional balance of economic and social agendas (Robinson, 2008). Even the status of traditional church schools is being challenged and questioned raising the issue of what role if

any the church will have in educational provision in an environment that is being increasingly defined by market forces and neo-liberal economic policy (Ball, 2009).

Only those schools with the capacity to ensure larger cohorts of pupils will be able to access significant funding confidently and compete in an arena that increasingly promotes a culture of natural selection amongst educational institutions (Ball S. , 2012). Ever increasing cohort numbers and the pressure of student-teacher ratios will carry the inherent risk of learners losing access to effective personalised learning. An obvious consequence of this will be parents/guardians considering home learning as a legitimate option. Clearly this will impact their dependency on what broadband technology can offer as a learning resource and how they might secure access both now and in the future. Bullock indicates that the availability of broadband is an important factor when considering the home schooling option and how that might be delivered via an accessible curriculum (Bullock, 2011). Having said that, we need to be mindful of those learners that either cannot or choose not to access broadband technologies.

Rothermel, 2002 suggests that home learning will be a largely middle class option as the shape of modern institutionalised education continues to evolve and our perceptions of what constitutes home learning develops (Petrie, 2001). Scanning these horizons will help educators and policy makers to prepare for the changes that will occur in the near future.

### **Policy and practice.**

The 2009 government review of elective home education identified the need for far reaching reforms (Badman, 2009). At the same time, The Home Access Taskforce report of 2007 recognised broadband as the “fifth utility” and its impact on learning in the home as being inevitable. In “Extending Opportunity” Becta alluded to this although they did not go

beyond defining home learning as anything other than school set homework and research (Becta, 2008). Current policy is interested in conventionally schooled learners' achieving high standards and contributing to an expanding knowledge based economy. Facilitating the needs of these learners to achieve outcomes such as those outlined in the 'Every Child Matters' (ECM) framework (Education D. f., 2003) is a key concern for policy makers.

It is therefore imperative that the pupils who are educated within the home environment have the appropriate support, resources and information made available to them. A focus on how new technologies such as broadband can impact the accessibility of a personalised curriculum that suits the need of every individual learner should be part of any future discourse. It is important to develop an understanding of how, by using such technologies, interested parties can access the curriculum from home, should they wish to, whilst at the same time providing evidence of progression and attainment as they follow a programme of study. It is also important to acquire an improved understanding of how the learner's experience is defined through interactivity and to what extent this interactivity is being utilised.

Parental awareness of educational provision in their community is greater than ever before and as they become increasingly involved in policy making and strategic planning, so the possibility of home schooling their children will become an increasingly viable option.

It is apparent that as the numbers of home learners increase so the need for local authority support will need to improve. Eddis clearly recommends the need for furthering our understanding of the relationship between local authorities and the home learning community (Eddis, 2006). If standards in education are to continue improve, then it is imperative that standards in home education remain on the social and economic agenda.

Bullock considers the additional issue of how far the decision to home school is influenced by the availability and potential of the technology (Bullock, 2011). She weighs this against the more established reasons of general dissatisfaction with the state provision as well as issues such as control and flexibility (Collom, 2005).

With this in mind, new broadband technologies should be considered, and how their increased availability has led to some communities using this as a key criterion when deciding to home educate. The technology is now part of the decision making process (Bullock, 2011). It has a powerful influence in this key process and therefore is directly manipulating the pedagogical interpretation at a policy level that did not warrant consideration a decade ago.

### **The Digital Divide**

The possibility of the existence of a digital divide has also to be considered when asking about the pedagogical influences of these technologies (Lewin, Mavers, & Somekh, 2003). Although it is generally acknowledged that the availability of broadband technologies is increasing exponentially, both domestically and internationally, it is relevant to look at the evidence domestically and globally if an understanding of how the effect of a digital divide might differentiate access and availability. Srivastava validates this by demonstrating that internet access in Botswana in 2004 was limited to 3.3% of the population (Srivastava, 2008). He also suggests that this compared at that time to 88% in Norway and 87% in the Netherlands. This would imply that the issue of a digital divide does exist on a global scale and that closing this gap will be a long term objective which will be both technologically and politically led within the social and economical framework of any given society or community. A similar divide might also exist in a domestic context. Current data from the Office of National Statistics indicates that as many as a fifth of the population do not have

household access to the internet (ONS, 2012) and that it is both rural and socioeconomically disadvantaged communities that are most likely to feel the effects of this

(<http://www.21stcenturychallenges.org/60-seconds/what-is-the-digital-divide/>). Steel-Carlin

concludes

*” that the most highly educated have the greatest access to technology, and those with the greatest access to technology become better educated.” (Steele-Carlin, 2000).*

This is a shocking conclusion and if it were to translate to a domestic context in the UK it might suggest the possibility of a stratified home schooling community that will be determined by the geographical location and socio-economic circumstances of learners and their guardians and therefore their ability to choose to use broadband technologies. The choice of whether to home school or not has always been influenced by the availability of resources and if the digital divide in the UK is not addressed then the potential to fully resource the users of this particular educational route will continue to be inhibited. Intervention through policy reform is imperative if this is to be addressed. The past decade has seen considerable public investment in broadband technologies in schools thereby allowing students who would otherwise not have access at home to be able to enjoy the benefits at school. This, of course, is progressive in its acknowledgement of the problem and as a proactive policy it has been relatively successful in its objectives. Similarly there has been investment in improved public access through libraries and other local government buildings. Having said that, the same progress has not been made in the home environment. The emphasis has been on mainstream education and the needs of those choosing to home educate have largely been overlooked. This demonstrates a discriminatory and divisive attitude by successive governments towards the home schooling community which are born out of a need for the state to maintain control over the existing status quo within the

established norms of educational provision and subsequent social reproduction (Boudieu & Passeron, 1977). This attitude is not uncommon and has been prevalent for some time.

Although Bullock acknowledges that:

*“The mid-1990s experienced a surge in the number of students who were home schooled due in part to parents having a legal right to home school in many states and the growth of the Internet. Not only were parents able to acquire resources for home schooling through the Internet but they were able to literally connect with other home schooling families. Both of these events contributed to the beginning of a shift in how home schoolers engaged in academics.”* (Bullock, 2011)

Closing the digital divide for those interested will ensure an equitable and democratic framework for learners and educators to work with. Today, learners in schools are able to have almost limitless access to technology thanks to a decade of significant investment. Those students are now clearly much more advantaged than their home schooled peers living in rural areas or from disadvantaged economic backgrounds. This might be interpreted as a form of educational discrimination in favour of those who follow the conventional educational routes as dictated by the established systems of the day. If this is to be addressed going forward it will be necessary to acknowledge the extent of the problem and the social injustices that ultimately stem from it.

### **Measuring the impact of broadband technologies on teaching and learning in the home.**

Hill reminds us that:

*“Facts about homeschooling are hard to come by. Home schoolers do not like big organisations, often refuse government paid assistance, and otherwise avoid doing things that make it easy for bureaucracies to count them.”* (Hill, 2000)

Hill, Bullock, Rothermel and Clements all comment on the difficulties associated with accessing the home schooling community for research purposes. They all acknowledge that this community largely exists on the periphery of the educational establishment and maintains a degree of reservation and reluctance when it is suggested that they may need to relinquish any control over their chosen educational choices. This has made traditional research methodologies and approaches challenging and not without considerable difficulty. Therefore, we must accept that if we are to research the impact of technologies such as broadband on the home schooling communities there will be certain limiting factors. This is acknowledged by Bullock and Clements although it is also given a context that allows the credibility of the research to be maintained (Bullock, 2011).

This is not unusual and is a limitation that is widely acknowledged by those people researching this particular area. Andrade mentions the racial and ethnic limitations of his research and acknowledges the self selective nature of his sample and how they were all willing volunteers. (Andrade, 2008)

He suggests that as well as the more tangible benefits of such technologies, it is important that there is recognition of the user perception of such technology and how that may have a bearing and influence on the decision-making process of those considering homeschooling as an option. He also alludes to the the issue of parental sovereignty and individual choice. He concludes that modern technologies have been key to facilitating homeschooling but also reminds us of the global nature of their uses in terms of production and distribution of knowledge. He also recognises the limitations of a digital divide and clearly states that homeschooling has not been available, in the same way, to those without sufficient economic and technological resources (Andrade, 2008).

Bullock et al state that the new technologies are not only influencing the mannner in which home schooling is being delivered but they are also a determining factor in the decision-making process (Bullock, 2011). Parents and guardians that once would not have considered the home schooling option for logistical reasons, and the difficulties that would have entailed, are now looking at it as a viable alternative. This community is expanding in the UK (Hill A. , 2000) which begs the question whether this is being influenced by the exponential rise in available technologies or is this simply a reflection and response to public dissatisfaction with state sponsored education and the standards that represents. New technologies can often represent added value in cost terms when considering the impact of state funded schooling against the financial implications of the private sector. It is probably a timely combination of all of these factors. The technology is acting like a catalyst to a sea of change that was happening anyway. The drive to improve standards in state education has been determined by an agenda of social and economic policy that has not necessarily been conducive to all parts of the social strata. With education policy becoming increasingly driven by economic policy, it is understandable that the homeschooling option might become more prolific. Certainly new technologies have made this more accessible to some communities and may serve to polarise the thinking involved by those looking at it as an alternative.

### **The future of curriculum access and broadband availability.**

The impact of broadband technology on home learners has been significant although not uniform in its effect across the home schooling communities, both domestic and international. The limited research that is available at this stage already suggests that this is the case. It is early days by the very nature of the technology only recently becoming more widely available to a domestic market in recent years. Education has largely responded to the new

technology in a predictable and policy driven way that has required significant investment and clear direction. Whilst it is evident that capital investment has been available, the same cannot be said of direction and strategy. This has been confused, and at times in congress with the need to develop a coherent understanding of the relationship between the technology and the user, in this case the learner. At the same time there have also been some less predictable outcomes that are apparently being driven by social reform outside the political arena. Bullock admits that there was a need to research this further in a new context that will explore the influence of the technology on the decision making process that potential learners and guardians enter prior to committing to a home schooling programme (Bullock, 2011). It is important to acknowledge Bullock's findings and understand the wider impact of accessing broadband technology to any community for the purposes of learning. This is not simply a case of accessing the required curriculum with nothing beyond that stage. Instead there is the possibility of a much broader spectrum of influence that might involve:

- The initial decision making process including cost, availability and support;
- Understanding and accessing the curriculum;
- Online guidance and support;
- Application of pedagogical values;
- On line interaction and networking with wider home schooling communities.

Looking to the future and considering the criteria listed above it would seem that there is the prospect of broadband technology becoming a driving force in education that would progress, regardless of the political agenda, in a direction that would be user determined outside of existing institutions and regardless of any established curriculum. Having said that, it does not necessarily have to be a chaotic or unstructured process. On the contrary. There are more opportunities now to allow mainstream education and home learners to exist in a symbiotic state sharing a common technology platform that can remove the need for

discrimination or elitism due to the classless nature of broadband networking and the removal of social barriers that go with it. Certainly the outlook is optimistic and although there are advantages and disadvantages associated with use of broadband technology as a home schooling resource it would be naive to suggest that it is anything other than a step forward for this particular community. The digital divide does present a challenge over the next few decades. Particularly in those countries where there is either no significant investment in infrastructure and reform or there is little or no political will to progress the debate further. Unfortunately the divide has created a polarised class system in the home learning communities that is giving the haves a clear advantage in this technology driven environment (Halverson, 2009).

The potential rate of learning that is available to those with access to the technology increases exponentially with each new development whilst those without access are not being given the same opportunities. This is clearly an unjust divide and represents the single most significant disadvantage that broadband technology has brought to the home schooling community. The statistics that Srivastava presents us with are a stark reminder of this divide. Already it seems apparent that closing the gap may be something that industry and commerce will be able to impact independently of the political agenda. The ongoing development of new technologies, such as smart phones and the increasing mobility of broadband access, is evident and evolving at an astonishing pace. Consumer demand is being understood and met by the technology industries more than it is by the political manifestos that are emerging at the moment. Industry understands the need to invest in a knowledge-based economy and addressing the existing divides in the learning communities will be key to present and future policy making.

There has been a sea of change that has been largely consumer driven despite the best efforts of policy makers and social commentators. The political agenda is for the most part

being ignored as the learning potential that broadband technology offers becomes increasingly apparent. The relatively contemporary nature of this field of research does restrict the abilities of researchers to accurately scan the horizon for upcoming changes and shifts in how learning communities are evolving within a technological context. This, in itself, remains justification for further research in this area if the issues outlined are to be addressed.

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