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EMBC Response to DCMS Consultation regarding BBC's Digital Curriculum Service

Dear Mr. Humphreys

The East Midlands Broadband Consortium welcomes the opportunity to respond to the DCMS with regards to the BBC's proposal to develop a Digital Curriculum. The East Midlands Broadband Consortium (EMBC) is one of the ten Regional Broadband Consortia funded by the Department for Education and Skills (DfES). The nine local education authorities in the region are Derby City, Derbyshire, Leicester City, Leicestershire, Lincolnshire, Northamptonshire Nottingham City, Nottinghamshire and Rutland.

EMBC has developed a broadband wide area network within the region linking schools, local education authorities (LEAs) and other public sites such as libraries. EMBC's aims move far beyond technical networking and focus on educational outcomes: connecting people, providing appropriate content and services through Information and Learning Technologies (ICT) and raising educational achievement.

Through its national RBC group, EMBC has participated in and received updates from the various DfES Curriculum Online (COL) working groups. In addition, EMBC has also met with BBC representatives to learn more about the Digital Curriculum before the proposals were submitted to the Department for Culture Media and Sport (DCMS).

This response has been reviewed by the EMBC Content Editorial and Development Group representing the nine LEAs. Lincolnshire County Council is also making its own response.

Response to the Secretary of State's Questions

EMBC welcomes, in principle, the BBC's plans to develop a Digital Curriculum. EMBC supports many of the objectives and targets outlined by the BBC in the proposal submitted to the DCMS. The schools sector would benefit from a public service offering of high-quality online content. However, there are some areas in the BBC's proposals that have raised questions or caused concern.

The provision of free online content carefully focused on the National Curriculum and developed to harness the benefits of emerging broadband technology and networks, as outlined in the BBC's submission to the DCMS, is within the BBC's public service role as set out in its charter.

Regarding the Secretary of State's questions about the value of the materials and their impact on the market, EMBC feels that a collection of online materials designed to recognise and incorporate broadband connectivity, new technologies and emerging understanding of the pedagogical applications of ICT would be of significant value to the education sector. While there is a growing educational software industry in the UK and internationally, there is not yet a significant amount of online resources that are innovative, educationally sound, and demonstrative of the promise of increasing bandwidth availability. While the BBC's proposals do not immediately impact the market, it is possible that they may do so within the proposed five-year life of the plan. EMBC recognises that if the BBC's Digital Curriculum meets its promise of high-quality, distinctive content that exploits broadband connectivity and covers a large proportion of learning objectives suitable for learning and teaching employing ICT, then



teachers may begin to use the resources as their first choice of materials since they will be free and will benefit from the recognised quality mark associated with the BBC brand.

In any case, EMBC also feels that there is not currently a wide range of high-quality broadband material in the market, and that if the BBC's materials live up to their promise then they could contribute to building teacher confidence and generate stronger demand, and need, for more online resources. Therefore, in order to maintain its public service objectives, the evolution of the BBC's materials over the five years, and the selection of subjects and learning objectives, will need to be monitored carefully, evaluated and balanced against the needs of teachers and learners and the nature and coverage of emerging commercial services as well as the funding streams available to schools. An external body such as the DfES's COL Content Advisory Board may be able to assist in this process.

The distinctiveness of the BBC's materials is impossible to assess without access to a product prototype. Schools are currently accessing "... video, flash animations, interactive games, printable worksheets, text pages and illustrations..." (p3 BBC Digital Curriculum Proposal Summary) through free websites, commercial services, non-profit services and LEA/RBC activity. The combinations, presentation and use of the material will be what determines the distinctiveness of the Digital Curriculum.

While the BBC has a reputation for appropriate and high quality materials, this in itself is no guarantee of the distinctiveness and potential of the new materials. It will be critical that existing material is reviewed and updated and that new material continues to employ new pedagogical paradigms and make best use of emerging technical advances.

In addition, EMBC recognises the potential of an online "learning environment" to contribute to the potential of learning resources. However, since many schools are already employing systems which have greater functionality than what the BBC proposes, the distinctiveness of this element of the proposal is uncertain. All the LEAs in the East Midlands region employ a Learning Content Management System (LCMS) or Virtual Learning Environment (VLE) and are working with schools to develop and embed good practice in the use of this tool. The promise of the BBC Digital Curriculum materials being operational in other systems is therefore a requirement of the region. Further comments on the subject of the VLE can be found below.

Additional Comments

Content

The Digital Curriculum could be a valuable component of Curriculum Online. Free resources available to schools will encourage teachers who are not yet confident in the use of ICT for learning and teaching the opportunity to sample materials. A number of comments can be made about the BBC's content proposals:

- Initially, the Digital Curriculum has the potential to widen the choice of materials available to teachers, learners and parents. This potential will only be achieved if the subject, topic and style of the materials is sufficiently different from what is already available from commercial and non-profit developers/providers of online content. Assuming that the BBC's argument that the Digital Curriculum will have a positive impact on the commercial market by increasing consumer demand, there will come a time when BBC's new developments will need to be evaluated more and more closely against what already exists.
- The web materials published by the BBC are considered to be of a good quality and useful to teachers. For this reason, the proposed materials are expected to be of high quality and comments made in this document presuppose this to be the case.
- The balance of development across core, non-core and other subjects is considered to be generally appropriate. There are already a wide variety of materials available for core subjects—it is suggested that any change in the proposed coverage of subjects should increase the range available in under-represented non-core or other subjects.
- With respect to our earlier statement that free BBC materials could become a default choice of teachers, thereby affecting the demand for commercial content, the BBC's statement that it will not create material for more than 50% of the learning objectives in any subject is critical. The DCMS should realise that not all learning objectives are



necessarily suitable for exploration using ICT—a 50% development target may represent a significant proportion of appropriate learning objectives that are suitable for using ICT.

- Therefore the BBC should not target only the learning objectives that are most amenable to ICT.
- Should the BBC realise its promise, it may need to not only limit the quantity of materials it creates in each subject, but also ensure that these materials span a wide range of objectives, rather than forming cohesive blocks of materials.
- We would welcome the emergence of materials which avoid being prescriptive in how and when they are accessed and offer teachers wide flexibility in planning their use with learners.
- EMBC is supportive of the BBC's plans to involve third party content developers. The need for the BBC to both encourage innovation and to maintain quality control will be an important part of this element of their proposals.
- The experience of member LEAs reflects the findings of Durham University's evaluation with regards to the limited access of teachers and pupils to a single computer for each individual. EMBC would encourage the BBC to develop their initial materials suitable for whole class and small group learning and transition towards a greater amount of materials for individualised learning as envisioned in *Transforming the Way We Learn*. Materials that can be used with whiteboards and projectors, as well as small pupil to computer ratios, will be more accessible immediately.

Learning Environment

Every LEA in the East Midlands Broadband Consortium has invested in a Learning Content Management System (LCMS) or Virtual Learning Environment (VLE) for its schools and these have been in use for one to four years, depending on the LEA. Eight of the LEAs are using Ramesys' Assimilate in two different versions (Lincolnshire's Netlinc has been in operation for four years) and Nottingham City uses Digitalbrain. The region has a strong investment in co-ordinated efforts to promote communication and the exchange of content and practice within schools, LEAs and across the region and has made a commitment to its members that content will be compatible with their particular VLE.

The BBC VLE could potentially cause confusion to schools in the region. It may also undermine the work invested by LEAs in the region to communicate, promote and build the use of local systems. The BBC system will have limited functionality, which is a backward step for the region. We strongly advocate arrangements for seamless integration of the BBC materials into existing systems.

If the BBC delays or fails to make its content platform independent, this will have a profound affect on the region. If the BBC places unreasonable demands on Learning Environment providers about storing, presenting or branding their content this will also have an impact on the region's ability to use the content. In the event that Learning Environment providers cannot certify themselves by the time the BBC releases their content, there will also be a scenario whereby EMBC schools would have to access the content from the BBC and not within systems used in the region. This would be both detrimental to the region and a potential breach of the BBC's public service requirements.

It is also the region's experience, borne out by the Durham University evaluation with regards to the BBC learning environment, that training and supporting teachers in the use of ("button pushing") and application (pedagogy and practice) of a learning environment is time consuming and demanding. If the BBC goes ahead with its plans for a learning environment it is unlikely that online help and a helpdesk will be sufficient to support teachers. This could potentially create pressure on both the BBC and LEAs, to which schools may turn if the BBC cannot or will not provide support.

Delivery and hosting

EMBC recognises the challenge facing the BBC in the delivery of broadband content. Internet delivery will not provide quality of service or multiple access to bandwidth hungry resources, even when schools have broadband connections. The use of "distribution nodes" and school



caches is an appropriate solution for the current challenges facing broadband content publishers and consumers.

The BBC's definition of broadband and cached broadband is based upon the bandwidth received by a single workstation. However, as a result of the rural sparsity and poor existing telecomms infrastructure/competition in the region, EMBC has not been able to exceed the DfES minimum requirement of 2 mpbs connections for schools. The EMBC network provides schools with a significant quality of service, but even so this bandwidth is shared by multiple curriculum and administrative workstations at each site. There are unlikely to be any instances where a single school workstation consistently receives as much as 256 kbps. If the number of workstations accessing the network is limited, it is possible that 56 kbps is achievable, but administering and limiting user access to achieve this would be both unmanageable and undesirable. The number of schools with caches is unknown. A proportion of secondary schools may have them, but overall the number can be estimated to be well under 50%.

EMBC does have a substantial central server farm and guaranteed quality of service to schools within the network. The region could easily act as a distribution node and would welcome the opportunity to explore this option with the BBC. The ability to offer both a "push" and "pull" service would be an advantage. If the BBC content will operate in other learning environments, the content will provide added value to regional initiatives.

However, EMBC does have a number of questions about acting as a distribution node.

- There are costs associated with hosting, testing, monitoring and maintaining content at a node, even where the infrastructure already exists—who would bear these costs?
- There are also technical impacts on the server farm architecture of any third-party software—will the BBC content be open platform or customisable to distribution node architecture?
- How will the BBC support nodes which have associated server farms? (For example, Lincolnshire has its own server farm connected to the EMBC server farm.)
- How will the BBC support its nodes both technically and pedagogically?

Finally, if the BBC is assuming that a distribution node will assume some or all of the costs of becoming a node in lieu of the associated benefits to users, it must recognise that it is reducing its costs by passing costs to a third party (namely EMBC in this instance). Commercial content providers would normally pay (directly or in kind) for hosting and distribution through the EMBC network. If EMBC bears the cost of hosting the BBC materials, this means that the BBC is being given a commercial advantage over commercial providers. It would also require EMBC to spend funds devolved to it for broadband connectivity and services on meeting its obligations as a "node", thereby indirectly imposing a cost on schools.

Conclusion

The BBC's vision of a Digital Curriculum which complements the DfES's Curriculum Online initiative is an important contribution to the use of ICT in learning and teaching. EMBC encourages the BBC to continue to work in a "joined up" manner with the DfES, schools, LEAs, RBCs and content publishers.

The BBC can make a significant public service contribution to learners, their families and educators with its Digital Curriculum. The questions raised in this document are not objections to the BBC's intention to deliver a Digital Curriculum—they are demonstrations of the complexities of what the project the BBC is proposing to undertake. Appropriate expectations, checks and balances will need to be put in place if the BBC's proposals are approved.

Yours sincerely,

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Project Manager