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ISBN 1 84180 135 6 Typeset by Land & Unwin, Bugbrooke Printed by HenDI Systems, London

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# Switched On

#### How television could turn teachers on to learning

Matthew Horne and John Craig with Susan Tipping

### DEMOS

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# Acknowledgements

We are grateful to the Schools' Communication Unit of the Department for Education and Skills (DfES) for supporting this pamphlet, and in particular to Richard Graham and Ben Arora. Thanks also to Nigel Dacre and Andrew Bethell at Teachers' TV for their contributions to our work.

We owe a debt of gratitude to Philippa Cordingley of the Centre for the Use of Research and Evidence in Education and to Julie Temperley for their work in the area of teachers' professional learning, which has served as a foundation for much of our thinking.

At Demos, thank you to Eddie Gibb for his thoughts on the relationship between Teachers' TV and the media. Thanks also to Tom Bentley, Charles Leadbeater and Sophia Parker for their important contributions to this work.

## 1. Introduction

There is a degree of novelty to the notion of Teachers' TV. In the context of rapid technological advancement, what might have been unthinkable in the past is emerging as a potentially vital element of public service reform. But still the question in everybody's mind is: will anyone watch Teachers' TV, especially at the end of a busy day at school?

Teachers' TV is an independent public service digital channel providing professional support and resources to all those working in education in England. It has six objectives:

1 to transmit accessible, innovative and practical continuing professional development (CPD) programmes based on the latest models of educational policy and research

- 2 to offer teachers, teaching assistants and governors the opportunity to see into the classrooms of others in order to share best practice
- 3 to offer teachers and teaching assistants practical ideas and televised classroom resources that enrich the curriculum and save them time
- 4 to provide programmes for teachers and governors that disseminate good practice and debate issues of leadership and school improvement
- 5 to provide a lively and relevant weekly educational news programme as well as documentaries and discussion programmes to cast light on the important educational issues of the day
- 6 to promote career development through the support and dissemination of accredited CPD qualifications.

The channel will schedule programmes in three zones. The Primary and Secondary zones will deliver targetted CPD and will be directly marketed to specialist groups. The General zone will offer a mix of programming including news and current affairs, information and debate on the big issues, career guidance and general school improvement issues.

The General zone will be broadcast during prime-time viewing hours of breakfast, lunchtime and evenings. It is designed to feel most like a conventional channel – where the audience is expected to 'drop in and see what is on'. The Primary and Secondary zones are broadcast at other times, when the audience is expected 'to make an appointment to view' programmes targeted directly at them.

Within the Primary and Secondary zones, programmes will focus on: teaching specific curriculum subjects to particular groups of children; support and advice for managers, newly qualified teachers, teaching assistants and others with specific roles and responsibilities; and general school improvement processes including behaviour management, the school environment and organisational leadership.

For those programmes focusing on teaching and learning, each hour-long slot in the schedule will consist of four sections:

- 1 observation of classroom practice
- 2 discussion, analysis, external expertise, advice and tips
- 3 a guide to the best classroom resources and equipment
- 4 pupil programmes for use with children in the classroom.

Teachers' TV uses multiple repeats to enable a busy audience to access targetted programmes at a time convenient to them. Most programmes are repeated 14 times over a three-week period including night-time repeats on Freeview and multiple repeats on 'Catch Up Sunday'. Moreover, the audience can view programmes online on demand for a 12-week period. The channel will be supported by a substantial website that will enable the audience to participate in an online dialogue, among other things.

Producing television programmes that enable teachers to learn and improve their practice is the primary purpose of Teachers' TV. But first the channel must attract an audience – it must encourage teachers to tune in. This dual requirement for popular and informative programmes goes to the heart of the current debate about 'good TV'. How will Teachers' TV reconcile the desire to entertain with the need to educate its audience?

Protagonists in the current debate concerning 'good TV' polarise into two camps: one that evokes Reith's original desire to inform, educate and entertain, and another that evokes the populist appeal of mass entertainment rating wars. While Teachers' TV is not a public service broadcaster, it must include both these sets of priorities. Teachers' TV needs to be:

- O *educative*: help teachers learn
- *aspirational*: help change the culture of schools
- *realistic*: engage with the realities and difficulties that schools face
- *entertaining*: encourage the audience to tune in.

Each of these four characteristics will be vital in ensuring that Teachers' TV is good for both teaching and television. In seeking to combine them, the channel will be engaged in a delicate balancing act, which it is worth exploring in more detail.

Too *realistic* and, like many 'fly on the wall' documentaries, the channel risks damaging the organisations and individuals being filmed. John Humphrys recently told an audience of TV executives that popular reality TV shows were the antithesis of good TV. 'The good television of today is better than the best television of the old days. The bad television is worse. It is not only bad, it is damaging,'he said.<sup>1</sup>

Teachers' TV needs to develop its own unique approach to reality TV. Professional reality TV must never jeopardise the interests of those on screen for the benefit of the wider audience. It cannot afford to entertain at the expense of a deep engagement with new and challenging knowledge in a safe way.

Equally, Teachers' TV needs to find a way to combine *educative* programming with *entertaining* programming. Ofcom has recently been engaged in an attempt to define 'public service broadcasting' and came up with a set of principles about its purpose, including:

- to inform ourselves and others and to increase our understanding of the world through news, information and analysis of current events and ideas
- to stimulate our interest in and knowledge of arts, science, history and other topics through content that is accessible and can encourage informal learning.<sup>2</sup>

Teachers' TV is not a public service broadcaster, but it should meet some of these educative purposes. In so doing, it will need to avoid becoming an Open University for teachers, simply distributing training material. Instead it must combine entertainment and education in new ways.

Finally, Teachers' TV is in itself an expression of professional *aspiration*. The channel could and should be a positive and constructive way of raising the status, morale and profile of the work of staff in school by making it more transparent. However, aspirational TV risks being seen as government-funded propaganda or a promotional marketing tool.

In short, Teachers' TV is most likely to succeed if it manages to balance the need to trigger aspirational feelings in teachers, while levelling with them about the realities of the job. At the same time, it needs to balance robust and instructive professional development with entertaining television.

The best route through the complexity of this balancing act may be to seek to combine

'workshop TV' with 'watercooler TV' – programmes capable of sparking both institutional and social conversations.

Teachers' TV will have to embrace its own form of 'professional reality TV', one that recognises that its audience will view programmes both in school and at home. The channel will probably have a high degree of formal institutional viewing – programmes recorded and watched as part of departmental workshops, training days and formal professional development activities.

However, Teachers' TV also needs to be 'watercooler TV'– programmes that are watched at home and talked about in the staffroom the next day. This type of reality TV is 'good television', in so far as it often compels viewers to engage with one another about issues that it raises.

Unfortunately, *Big Brother* has become the archetypal success story of watercooler TV. The comment it creates is out of proportion with the ratings it achieves. While it is compelling entertainment, it is rarely educative, it is divorced from reality and it is far from aspirational. Worse

still, *Big Brother* risks damaging its participants. The question then is: what does watercooler TV look like within a public service context?

Television offers the perfect opportunity to allow teachers, students and parents to watch other teachers at work – in fact, this is its trump card. The evidence that we present here indicates that teachers learn best when they are able to discuss what is happening in real classroom situations. To this end, Teachers' TV is attempting to provide a stimulus for discussion within formal and informal professional settings. Below we outline how that can be achieved by asking a further question: what contribution can Teachers' TV make to the continuing professional development of all staff and governors in our schools?

### Teachers' TV and continuing professional development

There is greater explicit understanding of how staff and students learn today than ever before. Thanks to strengthening networks between schools, there is also a burgeoning understanding of what kind of expertise exists where. In this context, the ability to capture the good practice in schools *when and where it takes place* and to showcase it *when and where it is needed* would represent a tipping point in school reform efforts.

The idea of a 'single conversation' between schools and central government seems to be an acknowledgement that existing communication channels are in danger of being over-used and generating too much 'noise'. Teachers' TV offers the chance of a 'shop window' showing some of the outstanding practice in our school system in a format that could assure high-quality programming, increase the connectivity between staff in different schools and provide learning opportunities through a highly accessible medium.

This report starts with an introduction into how teachers learn. An understanding of the nature of teacher knowledge and how it is acquired is necessary before we can adequately consider what contribution this new channel of communication can make to teacher learning. The second section considers the existing barriers to teachers' learning. While we recognise that teachers, like all practitioners, learn continually through reflection on practice, we review some of the literature on teachers' perceptions of continuing professional development and the barriers that individuals and institutions experience in accessing high-quality learning opportunities.

We go on to summarise the extensive literature on models of effective CPD. We consider the difficulties in evaluating effectiveness, and explore five dimensions of CPD that seem particularly relevant to Teachers' TV:

- O building learner engagement
- O providing access to external expertise
- O observation of professional practice
- O dialogue about practice
- sustaining CPD over time.

Understanding the nature of teacher knowledge and teacher professional development is necessary

but not sufficient to answer the question we asked above: what contribution can Teachers' TV make to the continuing professional development of all staff and governors in our schools? The final section looks at the evidence relating to how teachers use technology, including the internet and multimedia resources. In particular, we focus on the use of technology to enable observation of practice, dialogue about practice, and access to external expertise and formal research knowledge. We also explore the potential of online communities to support broadcast media.

We conclude that:

- Teachers' TV is well placed to deal with the complexities of teacher knowledge.
- Teachers' TV can overcome the common barriers to CPD.
- Teachers' TV could be consistent with the most effective models of CPD.
- Audience viewing needs to be supported by face-to-face dialogue

and online dialogue, both of which frequently reinforce one another.

- Programme production based on enquiry is a professional development and capacity-building model.
- More research is needed on how observation, external expertise and dialogue can be applied to Teachers' TV in practice.

# 2. How teachers learn

The challenge for Teachers' TV is to align the practices of the channel and its programme-makers with the ways in which teachers learn.

In the case of the Literacy and Numeracy Strategies, a focus on compliance has won real improvements. However, in other cases, fundamental changes require deep engagement on the part of teachers with the 'whys' and 'hows' of their own practice. So there is a balance to be struck here. At times, a behaviourist approach can eradicate needless errors, and at other times a constructivist approach to teacher learning avoids treating symptoms and not causes. As we will see, in its potential to both broadcast to a large audience and foster more reflective communities, Teachers' TV would be well placed to strike this balance. In seeking to do this, it is important to remember the nature of what teachers are learning. Two features of teacher knowledge are important here. First, teacher knowledge is *situated* – in the context of the classroom, the science lab or the sports hall – and *embedded* in the practical activities of teaching: teaching is what teachers do.<sup>3</sup> Second, educational knowledge is *value laden*: perceptions of what constitutes a good lesson are closely tied to broader conceptions of what is fair or good.

The fact that teacher knowledge is situated has implications for the ways in which it is best transferred. Strategies for professional development can be weak in helping participants to connect what they are learning with their current practice. This can be vital to the success of CPD<sup>4</sup> and has a strong impact on whether teachers perceive it as effective.<sup>5</sup> For example, Judith Warren Little<sup>6</sup> ranks 'relevance and concreteness' alongside reciprocity as a crucial principle in successful teacher learning. Indeed, considering collaborative work between teachers more generally, she also argues<sup>7</sup> that 'teachers' main motivation and reward for involvement with one another will be found in the work of teaching . . . they are unlikely to sustain a pattern of significant out-of-classroom involvement in the absence of interdependent work-related interests.' It is important to ensure that the principles of relevance, concreteness and reciprocity are at the heart of Teachers' TV.

The recognition that educational knowledge is also value laden has further implications for how it is transferred. How teachers teach is close to their heart. Their practice is wrapped up in their personal and professional identities. How you feel about a good education is closely related to how you feel about the world.<sup>8</sup> As a result, educational professionals are able to contest what constitutes good teaching and learning.

In some cases, teachers learn best from those whose practice is closest to their own, and in particular from colleagues with whom they work. Discussing this issue, Paul Clarke<sup>9</sup> reminds us of Geoff Mulgan's distinction between first- and second-order exchanges: The market system has become phenomenally sophisticated at managing what could be called first-order exchanges – like buying a car, a loaf of bread or a television set, in which it is unnecessary to have any continuing relationship with the partner to exchange. But it is less sophisticated at second-order exchanges which, like most human relationships, depend upon reciprocal understandings.<sup>10</sup>

Because of the value-laden nature of teacher knowledge, many of teachers' professional development needs require these second-order exchanges, which depend on existing relationships. This is why 'closeness' to teachers' own practice can at times be restricted to those with whom they have worked and constructed together values around teaching and learning. The challenge for Teachers' TV is to leave space for colleagues within and across schools to work and learn in this way.

#### 2.1 Enabling teachers to learn together

We can add, therefore, a second important distinction to that between first- and secondorder exchanges, which might help Teachers' TV to think through how its content relates to teachers' work more generally. Joyce and Showers found that 'when an entire faculty is involved in an innovation, the transfer rate of training into classroom practice approaches 100%.'11 Why might this be? In a lecture, for example, the audience's focus is simply each individual's own personal learning - it is an example of what Chang and Simpson call 'concurrent learning'.12 However, in a case of whole-school or departmental innovation, the learning focus is the group as a whole, and the creation of shared norms is an integral part of the learning activity. For Chang and Simpson, this is the essence of genuine 'collaborative learning'.13 Chang and Simpson's quadrant of learning is shown in figure 1.

This distinction helps to shed light on the better-known typology of collaborative learning of Judith Warren Little.<sup>14</sup> She has created a

#### Figure 1 Chang and Simpson's quadrant of learning



developmental model in which groups of teachers move gradually from 'story-telling' to 'aid and assistance' to 'sharing' and, finally, to 'joint work'. As she puts it, 'joint work anticipates truly collective action.' The challenge for Teachers' TV, therefore, is to understand the kinds of collective activities with which viewers might connect its output.

#### 2.2 Teachers' perceptions of CPD

All teachers have some experience of continuous professional development. The first thing to note about their perceptions is an association of CPD with 'courses and training days'.<sup>15</sup> In contrast, the potential flexibility of Teachers' TV seems to offer the chance to broaden this perception of CPD, and better align it with the ways teachers learn informally within school and voluntarily beyond it.

In many cases, training, such as one-day courses, is an appropriate form of learning. Where there is a need to share an explicit body of subject or pedagogic knowledge, distinct 'nuggets' of good practice or items of news, this can be an extremely effective approach. However, as we have seen, not all educational knowledge is of this kind. In the United States, 'training' is increasingly referred to as 'drive-by' professional development, for its one-way communication, and only momentary engagement with the contexts in which teachers work. In contrast, the *Leading Learners* report<sup>16</sup> showed that, while 90 per cent of teachers thought it was important to use a 'wide-reaching network of people and sources to draw new ideas into the school', in fact, the most common activity for leadership development was informal mentoring within the school. There seems to be a divide, therefore, between formal, one-off delivery of information by experts and informal, on-demand networking among their audiences, and this is reproduced in the ways many teachers perceive CPD. There is considerable potential for Teachers' TV to make a strategic contribution to CPD by blurring this boundary and connecting these activities.

In particular, the possibility of Teachers' TV allowing individuals to access content on demand, or personalise their own content (through personal video recorders, etc), might make a valuable contribution. For example, Hustler et al<sup>17</sup> found that one in four teachers read for personal study on a 'regular basis' and almost half of them want more time after training to reflect on their current practice and to think about how they might apply what they had learned. It seems the appetite is there for a more personal, voluntaristic approach

to CPD, in which teachers become 'leaders of their own learning'.<sup>18</sup>

Indeed, Macaulay<sup>19</sup> found that the 'latest figures show that around 80% of primary teachers and 90% of secondary school teachers use computers routinely at home'. Indeed, Hustler et al<sup>20</sup> found that, while one in seven teachers visited other classrooms in their school to learn, one in eight already used the internet for study purposes. Furthermore, Jones<sup>21</sup> found that 31 per cent of teachers surveyed had an MBA or other higher degree. However, at present just under half of teachers feel that they help to set the CPD agenda of their school, while a similar proportion felt that their CPD needs were not being met.<sup>22</sup> Can Teachers' TV offer teachers the chance to set their own CPD agenda?

## 3. Barriers to teachers' learning

Staff working in schools experience a range of barriers to effective CPD. These can be broadly categorised as either personal or institutional barriers – in other words, things that make it difficult for individual staff members and things that make it difficult for whole schools to access effective CPD.

The most common and obvious personal barriers relate to the accessibility of training courses – in particular, where the courses are held, when they are run and the time it takes to get there. Many courses are run after school in twilight sessions or at weekends at hotels or LEA offices, requiring individuals to make special arrangements for family commitments. Time was a greater problem for older teachers than younger teachers.<sup>23</sup>

Teachers' TV overcomes these different factors. The TV programmes and supporting materials can be accessed from home or school and, of course, the programmes can be recorded, allowing staff to watch them at any time including during directed time in school.

Teachers' TV provides a great deal more flexibility in time and space and is more convenient for teachers and support staff than traditional training. It does not follow that this extra convenience will be matched by a greater willingness and motivation in teachers to access CPD – other variables such as quality of provision, expectations and accountability are key. The technological knowledge needed to access online, digital TV and multimedia resources is also important.<sup>24</sup> In addition, technology overload has been cited as a barrier to distance learning.

A second set of personal barriers relate to the content of the learning. Content is the primary

motivator for teachers accessing professional development. Maths teachers want to learn how to teach maths more effectively, SENCos (Special Educational Needs coordinators) want to learn how to support the learning of children with learning difficulties, and nursery teachers want to learn how to provide a broad curriculum at the foundation stage effectively.

Professional development is hard to achieve if the learners do not feel a sense of ownership over the content focus of their learning. For learning to be successful, staff must first recognise their own learning needs and express a desire to learn more about a particular subject. When teachers don't know why they are attending a course, don't share the purposes of the professional development programme, or actually think that they don't need to learn anything new about a subject, it is difficult for professional development to occur.<sup>25</sup>

Teachers need to feel that the content of their professional development will help them do a better job. This means that its focus needs to be specific, concrete, practical and context relevant.
Mentoring and coaching are seen as the models of CPD that meet these criteria most directly. This poses a challenge to Teachers' TV: how will programmes identify the content issues that meet the learning needs of a large and diverse profession?

One suggestion is that the content of programmes needs to be curriculum subject specific and phase specific. Greater differentiation can also be achieved by targetting programmes at staff who perform different roles within the school eg SENCos, learning support assistants, curriculum coordinators, cover supervisors, deputy head teachers and NQTs.

Institutional barriers include the costs of CPD and the inflexible use of time in most schools.<sup>26</sup> Training courses can be expensive in the context of limited school CPD budgets. Moreover, courses run during the school day incur the costs of supply cover. For coaching and mentoring to be effective, supply cover is often necessary to enable time to be given to formative feedback following classroom observation or demonstration lessons. Indeed, 33 per cent of teachers feel that their workload is inhibiting their professional development.<sup>27</sup> Those schools that hire external supply teachers run the risk of poor quality supply teaching, which often leads teachers to give a higher priority to staying in school than to attending training courses.<sup>28</sup>

The need for supply cover is partly driven by the inflexibility of school timetables, which can only really be overcome by designing professional development time into the staff timetable – eg coordinating release time for heads of department in different schools to enable visits.<sup>29</sup> However, even this type of designed release time has a financial cost.

As we have already mentioned, Teachers' TV overcomes the problems of time flexibility, reducing the need for supply cover, and as a free-to-air digital service it is comparatively cheap.

These barriers to CPD tell us a great deal about different models of effective CPD – the need to differentiate, to ensure context relevance and personal relevance and ownership over content and to consider the time, financial and opportunity costs of different types of professional development.

## 4. Models of effective professional development

Teachers' TV can learn a great deal from both the rigorous academic research teacher on professional development and the popularity of the more educative reality TV formats. While scholars present their own models and labour over nuance and emphasis, we suggest that there is much more convergence than divergence in the research relating to effective CPD. At the other end of the spectrum, there is equal convergence about how to film stories of real personal growth and change in popular and entertaining ways. Success lies in combining both of these bodies of knowledge.

It is worth noting what we mean by effective CPD. Some measures of effectiveness do not go beyond stated learning objectives or the satisfaction and enjoyment of the participants. This is inadequate. Many of those responsible for training courses for teachers have no way of knowing whether they change the practice and behaviour of teachers in the classroom. One measure of effectiveness, therefore, is to quantify the extent to which CPD changes teachers' practice.

Changes in practice are not, however, an end in themselves; they are only of value should they lead to improvements in the experiences of students and ultimately improvements in students' learning outcomes. Unfortunately it is clear that most research into CPD does not research the benefits in terms of student learning outcomes.<sup>30</sup> The EPPI 2004 study reviewed a range of research that measured the impact of collaborative CPD on student learning outcomes including pupil motivation, participation in lessons, enjoyment, satisfaction with learning, achievement, skill levels and, of course, attainment.

Two studies in particular represent a culmination of the knowledge base. The first by Joyce and Showers (1988) and the second, the EPPI systematic review of the literature on collaborative CPD (2004), represent a synthesis of published literature in this field. They both point to some common features of effective CPD.

Joyce and Showers focus on the conditions that support teachers' professional development, including access to expertise and opportunities for problem-solving and to observe each other's work. They also emphasise the importance of the creation of shared norms that legitimate and enable experimentation, and formal school structures that support staff learning.

The EPPI study shows how CPD needs to build on what teachers already know. It recommends that teachers need to choose the focus of their own learning so that each individual teacher can find an appropriate focus and level for themselves. Like all learners, different teachers have different starting points for their learning. It follows that novice teachers have different learning needs from experienced ones, and that professional development needs to enable teachers to progress through 'zones of proximal development'.

Equally, this progress takes place over time. Sustained CPD enables teachers to embed practice in their own classroom settings, with opportunities for feedback and for revisiting source material. For example, team teaching and collaborative planning within workshops allow teachers to help foster the progress of each other.

The use of external experts – such as HEI staff and LEA officers, who provide access to the public knowledge base and link it to school-based activity through training – is a key ingredient to professional development, according to the review by EPPI:

There is widespread use in these studies of a combination of external expertise and peer support mechanisms . . . Practitioners may

wish to consider how far peer support can be used as a means of supplementing external expertise cost effectively.

Coaching is seen as essential by Joyce and Showers to embed new teaching practices: 'Without coaching or provision of its equivalent, very few educational professionals practise new teaching strategies until they become part of the working repertoire.' Coaching as a model of professional development is a powerful means of changing practice for a range of different reasons:

- It encourages teachers to make use of new practices more effectively.
- Teachers tend to use newly learned teaching strategies more appropriately.
- It increases teachers' experimentation with new teaching strategies and provides them with opportunities to receive feedback.
- O Teachers are more likely to use and

discuss these new practices and are less likely to forget them.

- Teachers are more likely to explain new models and concepts to their students.
- Teachers tend to have clearer thoughts about the purposes and use of new teaching strategies.<sup>31</sup>

The EPPI review distinguishes usefully between peer coaching and expert coaching. Peer coaching – observation and feedback from peer teachers – helps to create a supportive environment for teachers to take risks and try new practices. The emphasis here is on equal peer relationships and not on line management or status-based relationships. Expert coaching requires observation and feedback from teachers who are expert classroom practitioners *and* expert at coaching other teachers. It uses modelling and demonstration lessons that are followed by structured feedback and discussions as a means of developing good practice. As we noted earlier, getting staff to discuss and debate Teachers' TV programmes in formal school settings is as important as passing the 'watercooler test' – people talking more informally about a programme in the staffroom the next day. In fact, we would argue that the 'watercooler test' is almost as important to the channel as ratings themselves.

Most obviously, Teachers' TV is well placed to provide teachers with access to formal expertise through broadcasting lectures and master classes: a classic one-to-many TV format. Coaching as a model of professional development poses a greater challenge using TV. However, Teachers' TV is very well placed to enable the audience to view coaching in practice. In fact, this type of programme is increasingly popular on other channels.

### 4.1 Where can this already be seen in action?

What Not to Wear and Queer Eye for the Straight Guy are both examples of popular reality TV programmes where style experts critique a person's

dress sense or etiquette, suggest new approaches – in some cases, 'tell them what not to wear' – and then watch them applying their new-found knowledge in practice. This coaching model of observation and reflective dialogue is both an effective learning model and a successful entertainment model.

We would urge caution, however. The direct benefits for the person being coached are plain for all to see; it is less clear what direct benefits the audience themselves experience. Encouragingly, evidence from the pilot of Teachers' TV suggests that programmes that adopt this model are extremely popular with teachers. We are not suggesting that changing professional practice is as easy or as widely appealing as changing the contents of your wardrobe – but we do suggest that professional development on TV could learn from the innovative approaches to reality TV.

If a coaching model were to be taken a stage further, Teachers' TV will need to develop a more sophisticated level of interactivity. It is able to provide a huge audience with the ability to watch what happens in a large number of classrooms. The challenge is then to create opportunities for the audience to discuss what they have watched in both formal and informal professional settings. At this point, Teachers' TV becomes a medium and stimulus for many-to-many communication.

Teachers' TV could achieve this through live studio audiences, phone-ins, email, text or online dialogue. The channel is likely to achieve interactivity through the structured use of its programmes within school and within existing professional development opportunities. It will struggle to compete with prime-time offerings on mainstream channels but it does have a captive audience in school when many of its short (15 minute) programmes could be used in staff and departmental meetings, twilight sessions and training days or as part of initial teacher training.

However, to be a successful channel, Teachers' TV needs to go further than distribute content for use in formal settings. It must infuse the rich informal professional dialogue that occurs in schools day in and day out.

Sustaining professional development over time is achievable using TV, given the linear and narrative nature of programmes and series. Programmes that chart the development of individual teachers and children over time could be particularly powerful in this respect - in the same way that the Faking It television series demonstrates accelerated learning over time, through the use of expert coaching. Similarly, Make Me Honest comprises powerful personal stories about how ex-offenders struggle against the lure of re-offending with the support of a volunteer mentor. These personal stories, designed to demonstrate changes in behaviour over time, are highly entertaining, instructional and, at times, compelling viewing.

# 5. Teachers and technology

The emergence of digital television is part of a broader trend of a convergence between television and the internet. For our purposes, the crucial feature of this is the ability to foster both one-tomany and many-to-many communication. This, as we have seen, maps on to effective models of professional development, which will also tend to include both the delivery of information to teachers and collaboration between them. However, it also poses a dilemma for Teachers' TV: when should it be seeking to cultivate an audience and when should it be seeking to cultivate a community? This question is at the heart of the relationship between teachers and technology.

In particular, it is useful to explore the implications of observation, external expertise

and dialogue as three important lessons of effective professional development.

#### 5.1 Observation

First, the importance of observation connects powerfully with the ability of Teachers' TV to function as a window on real classroom activity. In thinking through the potential of this kind of capacity, Marx<sup>32</sup> has produced five extremely useful design principles:

Use rich examples. Too often, examples of practice are cited as evidence, but not really explored as a way to communicate core ideas. 'Cases are accessible because they represent teaching as contextualised events ... they provide concrete examples for teachers, not just abstract theory<sup>33</sup> ... [and they] illustrate how teachers resolved challenges ... several different cases of how teachers meet the same challenges need to be included.'

- O Use examples that are real and are seen to be real. A strong feature of teachers' feedback on professional development materials is that their classroom examples assume a perfect world. This can seem to marginalise the realities of their own classrooms rather than engaging with them as they really are, and helping teachers to translate advice for their own contexts. It is important, therefore, to provide clear background to examples, helping teachers to compare the position being characterised to their own.
- Use the language of classroom activities and events. Teachers' conversations are animated by the specific content of school and classroom activity, so that rich examples are often the means by which they share ideas with each other. In this context, 'the video helps to create visions of alternative practice that are more powerful than text alone.'

- O Use teachers' own stories. 'Teachers need reassurance as they try to change practice . . . technology should contain commentary by teachers about their intent, constraints, rationales and understandings. Seeing videos and reading case reports of how others have struggled and how they resolved dilemmas and overcame challenges encourages teachers as they face the difficult task of altering practice.'
- Use prompts to help teachers to reflect and think as they watch. The fascination with content can be a weakness as well as a strength in teacher learning. 'Commentary and prompts associated with video need to focus attention on issues of particular relevance in the video.'<sup>34</sup>

In CPD more generally, observation is also important for its ability to provide quality feedback for those being observed. As well as creating an audience around classroom observation, therefore, it would be interesting to see how Teachers' TV might foster a set of professional communities around videoed classroom observation. Could Teachers' TV provide the infrastructure that would enable teachers to store, share and search for footage from classroom observation? This would allow valuable professional feedback to be provided across the education system and create a highly distributed approach to meeting the viewing needs of teachers.

Clearly, this kind of capacity would also be relevant to teachers' core work. Growing use is already being made of video-conferencing by schools to provide subjects for which pupil demand or teacher supply is low. For example, Kinnear, McWilliams and Caul<sup>35</sup> found that trainee teachers were 'impressed with the content, technical quality and potential benefits' of videoconferencing for learning'. However, notes of caution have also been sounded. Knipe and Lee<sup>36</sup> reviewed the use of distance-learning techniques in higher education, but found that they actually worked better for those on campus: they complemented offline activities and the two grew together. However, they did conclude that these systems 'allow for more personal feedback than could ever be achieved from the traditional university teaching system'.

#### 5.2 External expertise

Broadcasting external expertise is clearly an important area for Teachers' TV. High-quality educational consultants are expensive, and it can be difficult for classroom teachers to get access to them. They are not only a source of extremely valuable information, but can validate and celebrate the work teachers are doing, boosting confidence and morale.

The effect of hearing the right person at the right time talking about education can be powerful. As one participant in the DfES Transfer of Practice research project put it, 'Dylan William came to speak at our school . . . I listened to what he was saying, and as I listened, I realised that, on some really fundamental things, he was right and I was wrong . . . and that was the start of our work on Assessment for Learning.' The ability of Teachers' TV to revolutionise the relationship between supply and demand for this kind of external expertise is a potentially crucial part of its role.

#### 5.3 Dialogue

The first important feature of dialogue is its ability to build a sense of audience ownership. However, teachers will not engage systematically in a conversation that is explicitly about Teachers' TV. If this kind of dialogue is an additional activity for teachers, it will struggle to succeed. The ability of Teacher's TV to develop a dialogue with its viewers will rest in large part on its ability to track conversations in other areas of the education system. Existing forums or events might be used to create content priorities for the channel or to serve as content.

For example, the Teacher Training Agency has surveyed teaching staff about their professional development needs. In order of greatest need, the results were:

- 1 comparing the effectiveness of different teaching strategies
- 2 models of effective classroom teacher behaviour
- 3 strategies for effective differentiation
- 4 strategies for improving motivation and engagement
- 5 developing creative pupil thinking
- 6 effective whole-class teaching.

The ability to access, update and use this kind of data will be crucial for Teachers' TV.

The second important feature of dialogue is the potential of online communities in the context of Teachers' TV. The appropriate structure of an online community depends crucially on its purpose. Drawing on the work of Wild,<sup>37</sup> the potential purposes of online communities include professional learning, socialising, sharing resources and advice, political organisation and reflective discourse.

Teachers' TV's interest in online communities is, it would seem, primarily in their use for online

collaborative learning. For Tu and Corry,<sup>38</sup> 'a successful online collaborative learning community is an organisation where community members engage intellectually, mentally, socioculturally and interactively in various structured and unstructured activities to achieve their common learning goals via electronic communication technologies.'

Credible literature on this kind of community is only just beginning to emerge, and is short on hard evidence.<sup>39</sup> However, a broad framework of good practice is starting to become clear. The most important principle seems to be that 'the internet should not be seen as a law unto itself ... online groups succeed and fail for similar reasons to offline groups.'<sup>40</sup>

As a result, there is a growing market in repackaging common sense about professional interaction in the rhetoric of the internet. The real challenge for those creating online communities is to think through the fundamental questions that instinctively occur when thinking about face-to-face interaction. Why does the site exist? Why would participants attend? What will they do and why?

Connections to the real world, therefore, are vital. We know, for example, that web users are the most important means of attracting further users, because of the ways in which they network offline. However, the relationship between online and offline communities is unclear. For Orey et al,41 'the only evidence we had that a strong learning community existed was those relationships that the students found offline within their local physical communities.' Yet Zhao and Rop argued that strong local physical communities had no motivation or need to exploit an online learning community. What these conflicting observations suggest is that there needs to be the right balance between online and face-to-face interaction, and thus both types of activity should be encouraged. Indeed, some see this connection as so important as to argue that 'the greatest potential of the web is its ability to support structured collaboration and conversation among a community of learners'42 (our emphasis).

This seems to prompt a number of questions for Teachers' TV. Can an online forum influence policy, affect Teachers' TV programmes and connect to offline events and activities? Anecdotally, Demos researchers have repeatedly encountered teachers' frustration at the cost, complexity and time lags involved in getting very simple content online. Could Teachers' TV have user areas providing extremely basic content management systems for schools who would then each have their own personal incentives for driving traffic to the site?

There is further information about online communities in the Appendix.

# 6. Conclusion

Teachers' TV is well suited to reflect the nature of teacher knowledge. Teacher knowledge is embedded in individual practice and situated in classroom contexts. It is also distributed among groups of teachers and developed and acquired through rich and purposeful dialogue. Teachers' TV enables large audiences to access the professional knowledge that is embedded in what teachers do by observing their classroom practice. Teachers' TV could provide a wealth of stimulus for groups of teachers to discuss and find meaning in the practice that they have viewed through the use of studio audiences, phone-ins, email and text communication and, of course, the facilitation of online communities of practitioners.

Teachers' TV can overcome the common barriers to CPD. In particular, it reduces the need

to travel to access training and creates flexibility in when teachers access training. It also reduces the cost of training and supply cover, as well as the uncertainty relating to the quality of supply cover.

Teachers' TV could be consistent with the most effective models of CPD. While access to highquality training and expertise is not in doubt, greater challenges are posed by the need to scaffold and prompt rich discussion about the content of programmes by the audience itself. This dialogue can be face to face or at a distance and probably needs to be both because face-toface dialogue and online dialogue reinforce one another.

The unique opportunity that Teachers' TV offers is to enable teachers to observe classroom practice on an unprecedented scale. Making television programmes in schools could be a model for capacity building. Capturing video and film footage in classrooms presents a fantastic development opportunity in those schools if a professional development design is used to support

the production process. Teacher research and enquiry call for the systematic collection of evidence concerning the impact of teaching practices on student learning processes and outcomes. Footage of those practices in action and the impact that they have on students over time presents one of the most valid and reliable data sources, partly because it is so transferable and open to repeated analysis. Teachers' TV should use the knowledge of teacher research and enquiry that already exists in the school system, especially in universities, among best practice research scholars, networked learning communities, General Teaching Council of England, research lesson study programmes and former Teacher Training Agency research consortia schools

More research is needed on how observation, external expertise and dialogue can be applied to Teachers' TV.

## 7. A strategy for Teachers' TV

In early 2004, Demos published *Free for All?* by Barry Cox, about the future of digital television. The pamphlet argued that digital technology is fundamentally changing the rules of the game for television producers. While Cox argues that the increasingly low cost of free television is a challenge for the BBC, it is a source of real opportunity for new providers.

For example:

M6 has in 15 years turned itself into the second largest commercial broadcaster in France. It has a strong appeal to the 16–34 age group, and uses a significant number of its programmes to promote and support its own record label, its cinema and DVD distribution, its magazines, its merchandising, its home shopping and its events.

Over half of its revenues come from these activities; in effect, the free TV channel is a shop window for the new businesses it is steadily creating or acquiring. And, while the free TV channel is growing very slowly, the new businesses are growing very rapidly. Understandably, the programme schedule is influenced by this underlying business strategy.

Indeed, Cox points out that 'Peter Wilkinson, the main shareholder in the Digital Interactive Television Group, told the *Guardian* in September 2002 that "brands" could launch television channels for as little as £1 million a year – "not even a pinprick in their annual marketing budgets" – and use these to persuade viewers to buy goods through their remote controls.'

This is of clear relevance to Teachers' TV, the viability of which has been driven by the onset of

digital television. The channel can use the existence of economies of scales at much lower levels of usage to differentiate clearly between different audiences within education. Crucially, Teachers' TV may also be able to use the flexibility of the available technology to enable teachers themselves to decide what they watch and when they watch it.

More generally, in the past we have seen television channels as ends in themselves, creating content to fill the time available. However, like M6, Teachers' TV will be there to support more fundamental activity taking place elsewhere in the system. The challenge, therefore, is for the channel to connect its output with what actually happens in schools and classrooms.

In short, Teachers' TV needs to become a platform for innovation, a framework within which individuals and groups of teachers can focus on developing not television programmes but quality learning experiences for the young people in their care.

#### 7.1 Positioning Teachers' TV

Just as Teachers' TV is a new kind of business proposition, it is also a new proposition for its audience. As the limits on the uses of television recede, so audiences must be helped to understand where particular innovations fit within the context of their own lives. In the case of Teachers' TV, it seems that viewers will need to be much more proactive consumers of the medium than is the case in traditional home use. This should be very clear in the positioning of Teachers' TV.

Teachers must be active viewers of Teachers' TV in order to learn from the channel and relate it to their own experience. However, there is a second reason why they will need to become active viewers. While large sections of a diverse teaching profession might be able to reach consistent broad agreement about content that is 'watchable' or interesting, this will not be true of content capable of meeting personal development needs. In some cases, a particular development need may cut across recognisable sub-sections of the teaching profession, no matter how good Teachers' TV becomes at segmenting and targetting its audience. Teachers, therefore, need to share the responsibility of finding the content that is right for them.

This is an important issue for how Teachers' TV positions itself. In terms of the amount of effort required, with some exceptions, the two uses to which teachers now put television are poles apart. The first use is as a stimulus for students in classrooms. Here, the use of television is extremely labour intensive for teachers. Teachers must locate (with difficulty) appropriate video material, perhaps record it months in advance, store it, book and secure a television and navigate technical gremlins.

There is a second kind of use to which teachers put television. At the end of long, tiring days, they collapse in front of it and wait to be entertained. The responsibility shifts from being entirely theirs to being entirely that of the broadcaster. 'There's nothing on' is a criticism not of their own choice of viewing time but of what has been provided for them to watch. Crucially, Teachers' TV must locate itself between these extremes, sharing the responsibility for getting the right content to the right people in the right way. According to Douglas Rushkoff, 'software and interfaces developed for the commercial webspace tended to take users' hands off the keyboard and on to the mouse.' Metaphorically, Teachers' TV must do the reverse, taking care of the hard work of producing and finding content for teachers, but ensuring that they are active rather than passive viewers.

The success of Teachers' TV, therefore, relies on changing the way teachers think about and use television. Indeed, a growing number of policy issues revolve around behaviour change – from savings and recycling to obesity and life-long learning. In all these cases, public agencies are seeking to encourage individuals to take greater responsibility for their own development. Thus Teachers' TV needs to be conscious of the trends of which it is a part. While this story about public services may be distant from its operational realities, it is essential for Teachers' TV to be part of a broader strategy for CPD that places autonomous learning professionals at its heart. It is important that Teachers' TV be connected to opportunities within schools so teachers can learn and innovate and to opportunities for them to progress. Only then can it be confident that the incentive structures will be right for cultivating the active and responsive viewers that will be at the heart of its success.

If teachers are able to take greater responsibility for their own learning, the evidence marshalled here seems to suggest that many would, and that the quality of their professional development would improve as a result. Teachers' TV would be well placed to model the kinds of skills and practices that would be key to the success of teachers' independent learning.

#### 7.2 Marketing

The goal of an active audience is important in terms of the way in which the channel is marketed. In particular, it highlights the importance of four aspects to any marketing strategy. Teachers' TV needs to be marketed as *flexible* and *credible*, in ways that combine the strengths of *viral marketing* and *clear targeting*.

First, Teachers' TV needs to demonstrate its flexibility. While it is tempting to promise that it will meet the individual needs of every teacher, the risk is the production of a passive audience. The channel must animate teachers sufficiently so that they are willing to search for content and to respond to it. Where 'personal video recorders' offer us the chance to create our own TV channel, Teachers' TV may decide to offer viewers the chance to *construct* their own professional assistant.

Second, evidence about teachers' attitudes to professional development mean that Teachers' TV needs to explore the possibilities of viral marketing. Part of the rationale for the creation of Teachers' TV is that existing channels of mass communication are overloaded, and exhibiting diminishing returns. Implicit in this rationale is the idea that a conventional broadcast approach to promoting Teachers' TV, at the very least, may be necessary but not sufficient. Indeed, it is unlikely that that alone – involving such measures as full-page adverts in relevant newspapers – will come close to winning Teachers' TV the kind of audience it is capable of attracting.

At the heart of a marketing strategy for Teachers' TV needs to be the simple goal to encourage recommendations from sources more credible to teachers than the government or the media – ie other teachers. The most important teachers' organisations are likely to be:

- O professional and subject associations
- institutions dealing with initial teacher training (ITT)
- 0 unions
- other trusted suppliers of teaching resources (publishers, etc)
- intermediaries such as the National College of School Leadership (NCSL) and Specialist Schools' Trust (SST).

Third, the importance of viewer responsibility does not imply that clarity about the target
audience is less important for Teachers' TV. It is essential to think about the different messages needed by different people. In particular, the various gatekeepers to schools and groups of teachers may be crucial. Head teachers, heads of department and literacy coordinators, for instance, have particular development needs. However, they also have the ability to encourage the use of particular resources within their spheres of influence; indeed, they face the task of finding materials to support others in meeting the demands they make of them. Teachers' TV, therefore, can make sizeable gains by explaining to these people not only how it can help them, but how it can contribute to the work of their colleagues. Key individuals within schools are another source of the peer recommendations that may be crucial to marketing Teachers' TV successfully.

The best medium through which to reach a given teacher will differ according to their role. Head teachers have the best access to professional networks, and the time pressures these men and women face mean that they tend to rely most heavily on the networks to filter the information available to them. To reach head teachers, therefore, working through trusted intermediaries will be especially important. In terms of professional networks and a hunger for new information, newly qualified teachers are at the other end of the spectrum. This group may well be the most responsive to more direct marketing strategies.

In broadcasting to an increasingly interconnected school system, the credibility of Teachers' TV will quickly suffer if teachers at the leading edge in a given area are not impressed by what they see. In countering any initial scepticism, investment in quality assurance systems that scan the horizon for the best on offer would seem to be important.

The content featured on Teachers' TV needs to be highly credible. While claims of good practice abound, the education system as a whole is relatively poor at constructing and operating criteria for judging good and best practice. The use of Ofsted judgements, value-added attainment data and peer judgements would be the most systematic attempt at achieving this.

One alternative would be to emphasise the improvement in classroom practice rather than in the effectiveness of classroom practice. This way, programmes can avoid making claims that they showcase 'best practice' and instead show examples of practice that range in quality, with a focus on improving teachers' practice irrespective of how good they are. This is immediately appealing to the notion of differentiation. The audience has a number of different starting points and will benefit from seeing the development of novice and expert teachers alike. In fact, deep learning comes from reflection on the differences between the novice and the expert and the processes by which the novice develops expertise.43

## 7.3 Meta-tagging

The marketing of Teachers' TV will depend on the quality of accessible information about programme content. Providing high-quality information

about available content is likely to be more important than for mainstream broadcasters, allowing teachers to play a more active role in constructing their own viewing schedule. Clear and intuitive 'meta-tagging' of programmes is vitally important. Information about a programme must go far beyond its basic premise, giving the full range of purposes it might serve.

While Teachers' TV will want to expand viewers' horizons and interest them in new ways of thinking about how they fit into the education system, this will be an incremental process. It is important that they use highly intuitive categories for explaining their content to teachers. Clearly, three kinds of classification seem to be paramount:

- O seniority
- 0 subject
- O school-wide issues.

The implication of this report is that the evidence may support a fourth category of 'skills'. We know that building the capacity of school staff for enquiry, coaching, modelling, project management and communication may be crucial in making possible a broader framework in which individuals and groups take greater responsibility for their own professional development. However, this will need to be carefully managed.

The importance of meta-tagging goes beyond its role in direct marketing. Its real value will lie in enabling other organisations to embed content from and references to Teachers' TV in their own resources. This is one area in which the most likely limit on the reach of information about Teachers' TV will be its ability to manage and share information about its own product.

These points about marketing raise clear technological questions. While it is beyond the scope of this report to choose between technological solutions, the ability to make Teachers' TV's output personalised, searchable and accessible must lie at the heart of these choices.

## 7.4 What should Teachers' TV show?

Teachers' TV needs to demonstrate a clear sense of purpose, always showing viewers why they are

watching. The best way to do this is to concentrate on features of the education system that are difficult to communicate through other media, making clear the added value of Teachers' TV. This seems to imply a focus on real-world problems and practice situated in the context of the classroom and embedded in school activities. Observation, therefore, may lie at the heart of both effective professional development and effective television for teachers. The ability of Teachers' TV to open up the processes of, for example, classroom practice, teacher reflection or coaching seems to be its unique selling point. This raises the question of the extent to which Teachers' TV can forge for itself a role as a site of problem-solving for teachers.

In an era of burgeoning networking initiatives, however, teachers are increasingly literate in the risks to time, money, energy and enthusiasm of what is being called 'educational tourism'. Teachers' TV needs to demonstrate clearly that its content is valuable, purposive and able to help solve real educational problems. There are a number of points to make about creating and modelling purposive programming:

- It is crucial that viewers of Teachers' TV come to trust the meta-data they are provided with. A sense of the purposes ascribed to a given programme must clearly run through it – they cannot be ascribed following its production.
- In focusing on diverse strategies of observation, programme-makers will need to be creative about meeting the needs of multiple audiences in order that output is used most efficiently. The process of modelling may be important in enabling programmes to meet multiple needs. Observers of or participants in a given scenario can themselves serve to model good practice.
- With this in mind, it is important for programme-makers to understand

that non-teacher perspectives (provided, for example, by presenters) might often represent a missed opportunity. Having new or experienced teachers or an expert, for instance, responding to classroom or school footage may serve both presentational needs and ensure that the programme appeals to a further group of teachers. This is where modelling becomes important.

O Being judicious with the use of nonteacher perspectives implies careful consideration of what is and is not important for teachers to see. The channel will quickly learn that teachers are well versed in official narratives of school life, and equally that, however charming, teachers may have low tolerance of images of the day job that don't clearly move the broader story forward. However, these considerations must be balanced with the need to provide context for examples. Developing clear protocols for Teachers' TV around the context provided for different kinds of examples and case studies might enable the channel to learn over time about how best to strike this balance. The ability of the channel to follow particular pupils, teachers or schools over time may be a source of exponential benefit. As viewers come to understand or identify with characters on screen, their own learning may improve. Here, reflections on the part of those featured about what they have learned, and reflections from experts and their development, will be very important.

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 Ends of programmes, like ends of lessons, may also be extremely important. As well as tactfully revisiting its messages, a programme end's impact may rest with the quality of leads and further sources of information that are provided for viewers.

 As the discussion of meta-tagging implied, content focusing on particular skills may lie at the heart of a strategy to position Teachers' TV as a gold standard in a system emphasising diverse learning opportunities and personal responsibility for professional development. Content on enquiry, coaching, modelling, project management and communication would all be extremely valuable.

# 7.5 Beyond viral marketing

Does the seeming importance of indirect marketing have any more fundamental implications for Teachers' TV?

If we ask the more general question about what might drive the education system to make use of digital television, it seems that a number of answers would occur to us before the availability and quality of Teachers' TV itself. First, and perhaps most important, there is the use of technology made by young people. Many teachers have already experienced students using camera phones to 'snap' the text they have been asked to copy down or surfing GCSE Bitesize on handheld devices. While confiscation remains schools' most common response, students are unlocking the educational potential of these devices for themselves. The first question for Teachers' TV, therefore, is whether enabling its use in the classroom in some way might be more than just a way of bringing teachers on side. Could it be much more important to align Teachers' TV with the growing uses of technology made by students and employ their 'pester power' to foster its use by teachers?

Second, Teachers' TV may need to think about parents' use of technology. Work that Demos is currently involved in with the Specialist Schools' Trust on leading the education agenda and with the Hay Group on extended schools has been somewhat surprising on this issue. While few if any schools serve today as large-scale examples of using video footage to involve parents in the learning process, many are certain that this will be part of their work in only a few years. Again, with schools particularly alive to the needs of just the kinds of parent who might make use of such a service, can Teachers' TV play a role here, and thus use it to drive viewers to produce content of their own?

Finally, as we have already noted, schools' use of technology to provide niche subjects or to network with other schools might supersede their need for the kinds of CPD stimulus that Teachers' TV can provide directly. Again, this will affect how the channel can best serve as a window on our education system.

There are two important implications here. First, Teachers' TV will need to develop the knowledge management capability necessary to work in this way. If it can learn from and track developments in the use of technology more broadly, what the knowledge base tells us will not only build an audience for the channel but ensure that it responds effectively to the needs and priorities of the system. Success in connecting output to practitioners will also help to build the sense of ownership among teachers, which will be so crucial in enabling them to learn from the content on offer. Second, for this to be possible, Teachers' TV needs a comprehensive strategy for forging partnerships with other stakeholders, such as the National College of School Leadership and Specialist Schools' Trust. This will help to add to the content of Teachers' TV, to its audience and to the work of those other organisations.

# Appendix: Effective online communities

## Size and entry requirements

One crucial issue for online communities is their size. While externally communities are often evaluated by the number of members they have, this is clearly superficial. While this says nothing of the quality of interaction taking place, it also ignores the fact that size can be a problem as often as it is an asset.

In You Don't Know Me But . . . : social capital & social software, William Davies argues that large communities ensure that participants' encounters in cyberspace are increasingly random. There is a lack of repeat encounters with the same people.

Very often this is not a problem. Most online discussion forums, for example, are technical.

Popular pieces of film-making equipment, for instance, spawn forums in which thousands of people share technical problems and solutions.

In this situation, forums fulfil the function of a textbook so that the lack of repeat encounters between individuals is not an issue. Indeed, many teachers use the internet in just this way. As one teacher commented during a review of the publication and dissemination process of James Page's *Working Laterally*, 'I tend not to work with ICT in that way unless I have a clear issue.' However, CPD often requires the kind of reciprocal relationships we referred to earlier. For this purpose, therefore, online communities need to be able to ensure repeat encounters. As Davies puts it, 'Ultimately the size of the internet is often too vast and the barrier to entry too low for groups to develop anything resembling social capital.'

Clay Shirky, an American internet commentator, argues that while an 'audience' can grow arbitrarily, 'communities have strong upper limits on size.' According to Howard Rheingold, in the absence of such limits groups can suffer from 'the opposite of the free-rider problem', where nobody is prepared to sit back and opt out of the collective venture, the result being a free-ranging cacophony.

How can size be limited? Sites can filter either people or content. Membership requirements can vary from a system in which participants must demonstrate their identity, to much stricter requirements. As well as professional requirements for membership, Teachers' TV might look at segmenting online interaction geographically or by status, to help grow the kind of social capital on which such communities thrive. However, Davies found that sites that allowed anonymous contributions had a higher initial number of posts, so that having an open, 'taster' period might be one approach.

The second way to cut down size is to filter content, limiting the number of conversations to raise the number of responses on each 'thread'. Highly filtered sites are excellent for use by those who may not themselves want to participate, but are looking for good ideas and recommendations. Demos' own experience suggests that the key lies in seeing how, in a given context, different web elements (filtered to different degrees and to different levels) can work together. For example, a messy, single screen discussion board around set themes may work very well with a weblog for which only a few 'champions' have posting rights. As well as including content from elsewhere, they can cherry pick from the discussion board, helping other participants to reflect on where they have got to and progress their own conversation.

Davies concludes that 'social software developers now recognise a number of things – total anonymity is not necessarily the best condition for online interaction; that non-verbal communication is an important element in social behaviour; that forms of moderation are necessary.

## Online characteristics and ground rules

Over time, successful online communities develop norms. In helping these norms to develop, one important accelerator is the power of reputation. This has played a role, most famously, on eBay. However, many online discussion forums also use reputation systems (number of posts, average number of replies, number of 'votes' in favour, etc), to provide incentives for constructive behaviour.

Here, the trick is to strike a balance. While in the early years of the World Wide Web the concern was with the prospect of interaction entirely free from interference, to an extent this has reversed. Members of an online community may feel that common ground can only be a matter of shared opinion (cf shared space, experience) and, as a result, enforce and protect these opinions more jealously than offline. This is an increasingly well-documented feature of weblogs, including those that focus on education (again, this seems to show the importance of connecting to real-world events).

Along with these shared norms will tend to come a sense of ownership of the site on the part of the participants. While this is very often a goal of those building and supporting such forums, it can be a shock for participants to learn that this is often not a sense of ownership that is exclusive to them. As a result, changes to such websites, for example, can cause considerable controversy.

Two other issues are honesty and memory. A recent article<sup>44</sup> in the *New York Times* notes a growing body of research (eg by Jeffrey Hancock at Cornell and Adam Joinson at the Open University) that suggests that people are actually more honest online. At the same time, however, the article notes that email indiscretion is increasingly getting people into trouble, and so there is likely to be a growing awareness that 'machines never forget'. Forums for head teachers, therefore, might be well advised to have clear policies about storage and deletion of information.

There is certainly considerable evidence that teachers are willing to be very open in online communication. For example, reviewing the use of an educational email list, Riding (2001) found that 'list members were very willing to ask for and share expertise and resources with others.' A Swe Khine and Lourdusamy review in 2003 found that 'more than 90 per cent of trainee teachers who responded said the use of online discussion was appropriate and encouraged them to express their opinions.' Indeed, between 2002 and 2003, while the number of phone calls to the Teacher Support Network remained static at around 14,000, the number of emails they received grew from around 7,500 to 16,000.<sup>45</sup>

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