ABSTRACT

This article explores the impact on learning of digital technologies and media practices across the secondary curriculum, with a particular emphasis on non-linear video editing in a specialist media technology school. It observes the making of a trailer for Psycho by a group of Year 11 girls, asking how the advent of this very new technology enables new kinds of reading of visual texts, as well as new kinds of textual production dependent upon new IT-based literacies. It suggests that we need to find an adequate language of the visual, and to understand how this relates to other “grammars” and semiotic systems; to understand how these competencies are rooted in wide-ranging cultural allegiances and pleasures, embracing popular as well as “classic” texts; and to understand the classroom as a site both of encounter with popular culture, and of increasingly professional audiovisual production.

KEY WORDS

media, digital, horror, visual literacy.
The digital revolution evokes a number of questions for those of us concerned with literacy, with communication, with rhetorical repertoires, and with the place of young people in such social processes. Like other technological revolutions in the field of communication, it isn’t surprising that this massive and accelerating change should attract comment, initially, on the nature of the technology itself. Stephen Heath wrote at the end of the 1970s about the way in which, ‘in the first moments of the history of cinema, it is the technology which provides the immediate interest: what is promoted and sold is the experience of the machine, the apparatus’ (1980:1-2). His warning - applicable as much to the digital revolution as to that other modern upsurge in the visual semiotic, cinema - is that technology does not somehow precede the social, but that the technical and social interact.

So one set of questions we will need to address will be those to do with how digital technologies change the nature of literacy, and literacy as a social practice - how they alter acts of textual reception and production, how they colour or transform the cultures in which these acts take place, how they transform the social spaces in which meanings are made and exchanged. Gunther Kress and Theo Van Leeuwen (1996) make a powerful plea that schools should expand their notion of literacy to accommodate visual communication and digital technologies:

If schools are to equip students adequately for the new semiotic order ... then the old boundaries between ‘writing’ on the one hand, ... and, on the other hand, the ‘visual’ arts ... should be redrawn. This will have to involve modern computer technology, central as it is to the new semiotic landscape. But, above all, it is crucially dependent on having the means of analysis, the means for talking about the ‘new literacy’, about what it is we do when we read and produce images. (16)

These forms of analysis, the new metalanguages needed to talk about this expanded literacy, raise questions we need urgently to address.

The work described in this article is based in a small comprehensive community school in Cambridge in the UK. Parkside Community College was the first school to gain specialist status as an Arts College with a specialism in Media Technologies - a second school in London has now joined it (and at least one more since this article was written). The Department for Education and Science invited three kinds of specialism in the Arts - performing arts, visual arts, and media arts. These emphases were left deliberately broad, and advice from the DfEE Specialist Schools Team was that schools were invited to build their own definitions of what such specialisms might mean. Our version of a media specialism, then, includes:

- extending work in digital media production; working with local cable TV to develop this
- work in multimedia, web authoring, and animation
- forms of audiovisual communication, such as digital music composition
- a place for popular culture in the curriculum
- exploring digital communication and social identities
- possible applications of media forms, practices and knowledge in different curriculum areas, as well as in specialist Media Studies and in the English curriculum.

This article will set out a brief overview of some of the media-related uses of digital media we are currently exploring; and an account of one specific project, and what it suggests about the value of digital communication in the classroom. These accounts produce some of the kinds of questions we want to incorporate into research proposals we are currently working on with the London Institute of Education and the BFI.

Digital images/ moving images

In the English curriculum at Parkside, the Head of English, James Durran, has constructed a progression of projects about visual communication and the media which has a carefully developed rationale, including: the need to find a language to talk about the visual image; an attempt to teach a grammar of language alongside a grammar of image, so that the two can reinforce and help one another; and a desire to incorporate texts of popular culture into the English curriculum, to place them side by side with the 'heritage' curriculum, to demonstrate that the two cultural poles are indeed made of the same semiotic stuff, are contingent upon the same sets of social and historical contexts, and can be subject to the same kinds of evaluative activity, affective engagement, and plays of cultural loyalty.
In Year 7, students study and make cereal packet designs; in Year 8, they analyse comics, and design their own superhero (Burn and Durran, 1999). In Year 9, students study The Company of Wolves, (Jordan, 1984) looking at the representation of women in horror films, and the meaning of werewolf transformation scenes, though an exploration of narrative sequences, and a close analysis of digitised stills from the film. We have described elsewhere how these readings can involve fierce cultural loyalties, gendered interpretations, and forms of response, engagement and transformation of text and viewing subject which need to be understood not only through students’ written analysis, but in their talk, gesture, and deployment of digital image and word (Burn, 1997).

Beyond English, a particular media form we are exploring is animation, using a cheap educational package called The Complete Animator. A Year 8 Science club have used it, for instance, to make an animation about microbes for a national competition. The questions this activity raised, and which can be explored in the course of an extended research project, are many. To begin with, what happens when scientific processes are represented through metaphor and personification in a comic animation sequence (the microbes are shown as little creatures in hats)? What kinds of visual scaffolding might be offered to help the understanding of scientific concepts, both in the narrower subject sense, and in the broader Vygotskyan sense? And is the subversive humour, pleasure, and appeal to images of the popular just the sugar on the pedagogic pill here? Or are such inflections of these acts of communication more central to understanding, and to the daily incremental transformation of young social subjects whose sense of self might increasingly include fragments of scientist, mathematician, filmmaker, author?

We are currently experimenting with the use of Animator in a Year 8 Maths project, in which pupils are making animated films about the topic of area, to consolidate their own understanding by showing the film to a younger audience of Year 6 pupils.

Another value of Animator is its enormous attraction for younger boys. Our computer rooms are full at lunchtimes of boys in Years 7 and 8 making small animations. It has also proved useful in Year 7 IT lessons, where one boy, whose learning is profoundly disrupted by Tourette's Syndrome and ADHD, has attached himself to the programme for up to three hours at a time. The conventional IT course - a Draw programme, a DTP activity, and a spreadsheet exercise - has completely failed to capture his imagination, and provoked the kinds of problem his school day is beset with: noisy, disruptive behaviour, a very short concentration span, and an inability to tackle tasks slowly and carefully enough to fully grasp new ideas and skills. With Animator, he has been motivated enough to learn new drawing skills, construct complex background images, multitask between programmes, handle his network storage space, and be patient enough to wait to ask questions.

The kinds of questions we want to ask about these digital media, then, are partly to do with the ‘languages’ of visual communication and the moving image, partly to do with the pleasures and subjective investments made by pupils in such processes, and partly to do with the social and cultural contexts which frame and determine the meanings that can be made with these new technologies. The remainder of this article will explore one project - a GCSE Media Studies coursework assignment in which four girls make a trailer for a millennium re-release of Hitchcock's Psycho.

**Psycho: the Mother of All Horror Films!**

This trailer course was set up as a way for students to use digital editing equipment to unpick the audiovisual fabric of films of their choice; to explore those sequences that had a powerful pull for them, and to reconstruct a new text which reflected their understandings of the film, and also of the processes of marketing and distribution, working delicately on sound and image to turn understanding into production.

It soon became obvious that this was a project that would stretch the very able students, and be valuable for all. Some went for their favourite film, but others thought more carefully about how their choice of film would affect their ideas about the audience and how it could be captured. This was certainly the case for Abby, Lorraine, Gwen and Holly, who went for a film that they had not all seen before, that was old by their own standards, and where the re-release was actually a possibility. On the back of the Psycho remake last year, the 30 year anniversary of the original, and the current interest in Hitchcock's centenary, Psycho seemed a good choice.
They needed to be very clear about what they had to look for. Yes, they needed to appreciate the film as a whole, consider its place within the horror genre. They needed to show in their trailer an awareness of its cult status; and to recognize the needs of the young, new audience of which they were a part. This latter process would involve their own viewing history, of which part is the legacy of Psycho - Halloween, The Silence of the Lambs, the Scream series.

Their use of non-linear digital video editing software (a professional package called Media 100) confirmed a number of benefits we have found with earlier projects, benefits not to be found in the analogue systems we used previously. Because strips of digital video can be stored in bins, and trimmed to fit the desired sequence, the early stages of selection, ordering, constructing a sequence or montage (both audio and visual), can be much more ambitious. Because final decisions can be postponed indefinitely, students can hold a wide range of possibilities together provisionally, and can then revise, delete and insert, try out different audio tracks, try out different kinds of transition between shots. For this group, making a trailer of Psycho was driven by a combination of ordering frameworks. In their written evaluations, they have presented this as a rational, coherent process, largely to do with narrative structures. Holly, for instance, mentions two kinds of narrative decision the group made, for their shorter 'teaser' trailer. The first is a kind of anti-narrative of the genre:

We decided that we did not want to show any of the film's real narrative in any linear form, but instead to use unconnected shots of stabbings and bodies in fast sequence. To keep the pace going we had to cut to black screens after many of the shots; otherwise we found that the various unconnected shots suggested a confusing narrative to the audience.

The point about the digital format is that they could set up this sequence and try it out, which would have been, if not impossible, at least very time-consuming with an analogue system. In fact, they then changed their minds:

We then decided that this was not the best way to portray the film, even to a younger audience, as it made the film look old-fashioned and slightly confusing. So, we set up a very simple narrative so that shots linked together more.

For the main trailer, they made, again, a different narrative decision:

In our main trailer, we decided to convey more of the narrative to both of the target audiences by building up the thriller element of the film, alongside the horror element. ... we re-structured the trailer on our timeline so that it was segmented, starting with an exposition of the narrative, in which shots of Janet Leigh travelling to the Bates motel, along with shots of Anthony Perkins giving her the key were shown.

Reading Holly's evaluation gives a clear idea of how the digital format allows the group to explore complex ideas about narrative as they work. Rather than a series of separate exercises, as this would be using an analogue set-up (taping from one VCR to another), in fact it works as a series of transformations of overlapping texts: they're using the same clips stored in their digital bin of material from the film; they're copying and pasting certain effects; they're making provisional decisions to see what they look like, then discarding them. In doing this, they are able to explore and analyse, through processes of production, the Hitchcock narrative aesthetic, which Holly refers to later in her evaluation:

In fact, the whole way through the trailer we set up a misleading narrative that focuses on the mother being the killer. we did this for two reasons. Firstly we wanted to show the audience scenes of the murders, and this is very hard to do without showing them the murderer. Then we thought we could follow Hitchcock's tradition of misleading the audience, by making them think they knew who the killer was so that the denouement would be even more surprising.

In an interview with the group as they complete the trailer, they discuss Hitchcock's suspense aesthetic, revealing an interest in the idea of frightening audiences by withholding the frightening image rather than revealing it. Abby mentions the controversy about nudity in the film:

Abby: It had too much nudity in it, didn't it, her in the shower - you only see her up to there!
Holly: Thing is, the suggestion of it, 'cos it's so much more suggestive than if you saw the whole thing - it's the same when you look through the holes - that's why it's remembered - 'cos it was - it was a really shocking film.

They go on to talk about why the film is still frightening, and again the withholding of the horrific image comes up:

Lorraine: The fact is, for our generation, it's not, you know, the most terrifying thing, some of the things that are out at the moment -

Gwen: It's not as graphic -

Abby: It is, though - you know the shower scene - doesn't it, like, make you flinch, although it's not [indec.] you actually see the knife going, so ...

This engagement with the Hitchcockian aesthetic seems quite ambivalent, and their trailer betrays, as Holly has indicated, a tension between narrative suspense and a withholding of the terrifying image, and a desire to display it in all its glory. This ambivalence is, perhaps, not very surprising. Hitchcock's classic suspense structures arguably rest on a dialectic between concealment of the terrifying image (such as the silhouette, or the partially revealed injury) and shocking revelation of it (the closeups of the knife, or of Marion Crane's dead eye). A little analysis reveals that such a dialectic is just as much a feature of more recent popular horror, often perceived to be the polar opposite of Hitchcock [1]. Such distinctions, to use Bourdieu's entirely relevant term here (1984), are more a question of socially-constructed aesthetic preferences or tastes, we would argue - and it is precisely this kind of network of contradictory cultural loyalties that these girls are working out for themselves here. The girls go on to discuss other films they have watched and enjoyed, including Wes Craven's Scream sequence, films based on Stephen King stories (It, Tommyknockers), the Nightmare on Elm Street sequence (Craven, 1984), and the newly re-released Exorcist, (Friedkin, 1976) which Gwen had just seen. Holly describes how she and Gwen used to get horror videos out every weekend and terrify themselves with them. They make the point that sometimes in these films the frightening thing is not so much explicit images of horror as suggestive, tantalisingly empty images: they mention the blue light of the TV screen in Poltergeist (Hooper, 1982) and a "really scary" green light in Tommyknockers.

The point here, however, is that they stand a much better chance of understanding the narrative effects of partially concealing horrific events and images if they can experiment with them, as the digital equipment allows them to do. The play of semiotic structures of concealment and revelation is worked out through the audiovisual text of their trailer, and through the metalinguistic understanding revealed in their commentary, as in Holly's observation here:

We opened this sequence with the drawing back of the shower curtain in the shower scene. We felt that metaphorically this shot worked well as it drew back the curtain of the narrative we had previously set up and brought the viewer face to face with murder.

The written evaluation, however, reveals only part of the story. Its neat, rational flavour is testament more to the forms of understanding the girls are arriving at than the messier process of the journey - the editing. The interview shows that, though they had talked through narrative ideas, these quickly became inadequate and abstract when faced with the actual raw material of the film:

AB: How did you actually choose the clips?

Holly: Well basically when we first started off we - we were really unsure about what we wanted so we basically digitised like half the film - all the key images, all the horrifying bits, we digitised the shower scene, and -

Abby: - too key - they were so key that we didn't have any little bits so we had to go back and re-digitise them.

It looks from these remarks as though they began by selecting powerful images that represented for them a condensed version of the film. These seem to be what has been described in social semiotic theory (see Hodge
and Tripp, 1986; Kress and Van Leeuwen, 1996) as synchronic syntagms - particularly powerful images carrying potent ideological meanings, apprehended as if instantaneously by the viewer, and used, selectively, to construct that particular viewer's 'take' on the text. Again, the tension between the suspense aesthetic and the pleasures of explicit horror are there: Holly mentions 'all the horrifying bits', but we've seen how they modify and structure these into the play between concealment and revelation, horror and suspense, that they eventually arrive at.

Abby's remark about how the clips were 'too key', and how they needed to go back and find 'little bits' suggests a feature of the visual text that works like a kind of grammar. Perhaps she is referring to those parts of the narrative that Barthes describes as catalysers, which fill in the narrative space between the more spectacular sequences he calls cardinal functions, or hingepoints of the narrative (Barthes, 1978). These parts of the narrative cannot be deleted without cost, Barthes warns: catalysers have important functions:

in the final analysis, the catalyser has a constant function which is, to use Jakobson's term, a phatic one: it maintains the contact between narrator and addressee. A nucleus cannot be deleted without altering the story, but neither can a catalyst without altering the discourse.

Abby has recognised that simply stringing together the 'key images' - the synchronic syntagms - will produce too condensed a montage, without the grammatical fullness to suggest a coherent narrative, or to address the audience clearly.

They knew they were looking for moments in the film which were not necessarily the 'peak' moments in the film's narrative (Barthes' cardinal functions), but also more subtle 'trough' moments that were going to be necessary material for the trailer (the catalysers). An example was their use of a shot of Marion driving, looking straight into the camera. They rejected a part of this sequence where her boss stands in front of the car with the possibility of stopping her - they recognise the need for sequences which are not hingepoints of the action, but exercise what Barthes calls the logical and chronological function of catalysers - they show consequences, and sustain the temporal flow of the narrative.

Their viewing of the film showed a powerful intuitive understanding of this visual grammar, and an instinct for important moments or sounds. There was a sudden rustling of paper, a frantic noting down of the video timer's clock. It became clear, during these moments, that there was some kind of mutual recognition and understanding going on. They instinctively knew what were key moments - not always to the film as a whole, but to their future trailer. We realised that they were bringing more knowledge and intuitive understanding of trailers to this project than we had given them credit for.

What's at stake here is the notion of 'visual literacy', which is obviously not to be restricted to digital media; although it is the increased power to appropriate, transform, create, and rework moving image texts conferred by digital formats that magnifies the questions posed by the visual literacy debate. [2] We asked the group explicitly what they thought about the idea that editing might be a literacy - like reading and writing. Something of an argument developed between Holly and Abby, in which Holly saw the creation of a visual text as being largely about structure, which could be visualised, planned and then executed. Abby thought it was more to do with experimentation, actually working with the material images:

Holly: ... you have to structure in the same way as writing, if you're a natural, if you're good at structuring, then it's, it's OK, but you have to use a different kind of - you have to use your other senses.

Abby: No but the problem with that is - the structures [indec.] in theory, yeah, in theory shots that were gonna look really good and it looks like, and you put them on there and they just look really random, and they didn't make sense ...

And later, after Holly has suggested that storyboarding might be useful, Abby disagrees:

Abby: I don't think we'd have had - I don't think we would have had this idea on a storyboard - it really helped to see what went wrong.
Lorraine: Yeah that was it - we started and got stuck in this rut and we had just one shot and we couldn't get any further than that, I mean we were just sitting there and getting really frustrated, just like 'Oh we're never going to finish this and another [indec.]

Abby: The pace was too slow.

Abby makes two revealing remarks here. The first, that 'it really helped to see what went wrong', underlines the crucial gift of digital media, their provisionality and plasticity, allowing for real redrafting, reconsidering, continual remaking, experimentation, shaping, polishing. The second - 'The pace was too slow' - makes the important point that, if there is an analogy with language here, it is partly, as Holly recognises, about working in a visual medium; but it is also about working in a time-based visual medium, and it is this feature of visual rhetoric, shared with speech but not with writing, that the storyboard, a more writing-like form, is least well-equipped to help with. They needed to see the moving sequence on screen before they realised that the pace was wrong. They wanted to give a sense of the genre, and indicate a 'whodunnit' kind of narrative, but they really wanted to give a sense to the audience of the emotional impact of the film. They wanted to create a fast, exciting pace, and recognised that fast cutting was necessary to achieve this. They wanted to use shots where the camera movement or movement of the participants themselves, had pace. Only when the shots were down on the timeline were they really able to experiment with pace. They trimmed shots quite precisely, in particular, and noticed that this immediately gave them pace when placed in sequence. They were very excited when they were shown a cross-zoom transition, realising that this again, was a perfect way to create some pace 'in 3D type way' as the images seemed to jump out of the screen at the audience then back again.

Another important element in the visual sequence of the trailer was the use of black screens with red text. Abby describes these in her evaluation:

Another successful technique we used to provoke interest or emotion from our target audience was to use text screens bearing captions, as these effectively catch the attention of the audience, who are almost forced to read them. In a sense, these separated different parts of the trailer. The first one, "WATCH OUT!", (placed after Norman hands the keys over to Marion) was designed to put the audience in suspense and obviously hints that Marion will not be safe, whilst not giving too much away. The second, "SHE'S BACK!" was placed after Norman tells Marion his mother is "not quite herself" to lead into the horror sequence (a sudden jump from the calmer narrative to fast-moving horror scenes would have looked un-natural and unprofessional) and to arouse the suspicions of the audience, who are likely to guess that 'mother' is the killer. ... The third caption, "THE MOTHER OF ALL HORROR FILMS" is a clever play on words for anyone who has already seen the film and was placed at the end to draw a close to the action and tell the audience about the film. These captions worked well as once we had created them and inserted them into our programme we could adjust the length of time they were on screen by lengthening or shortening the block which represented them, so that they fitted the pace of the trailer and were shown for a readable amount of time.

It is clear that these captions are important structuring devices in themselves; that they serve the purpose of Barthes' catalysers in helping construct the relationship between narrator and audience (or, in this case, two audiences); and that their digital nature, again, allows for a sophisticated operation of the time-based aspect of this medium.

The wider socio-cultural context from which all their work derives its meaning is also apparent. Abby notes that the captions are 'in black, to suggest blood and danger (connoting horror) ... The bold red colour also adds a modern element to the trailer, helping to attract the younger section of our target audience.' The bridge between Psycho and more recent popular horror which the girls are consciously constructing is also suggested by the wording of their captions, which recalls the numerous reappearances of the mother alien in Aliens (Cameron, 1986).

The timeline they have constructed using the Media 100 software gives a visual impression of their trailer. [figure 1]. This is Abby's timeline, annotated for her evaluation. Her notes show a detailed understanding of the digital medium, as well as the semiotic intentions of the group's decisions, relating to structure, pace (use of 50% slow motion), transitions (cross-zoom between titles), and, especially, the importance of the audio tracks.
The timeline makes visually clear how non-linear editing, as well as making possible operations that were previously difficult or impossible, also restores something of the material composition of classic film editing. In particular, the layering of the visual track over the audiotrack evokes Eisenstein's notion of vertical montage (1968), the articulation, at right-angles to the horizontal sequence of the film, so to speak, of image and sound. The timeline shows how they have used two contrasting music tracks from the CD of the film music, which Abby and Holly describe in the interview:

Abby: We used two different ones, we used one at the beginning, then we changed it for the stabbing, ju-ju-ju! [imitates the stabbing strings music].

Holly: Yeah, we used the Prelude, which is like - doo-doo-doo-doo [sings rising sequence], and then we used -

Abby: Then we brought that back on at the end, 'cos we thought it was epic, didn't we.

The timeline, which represents all of these decisions, is obviously a feature of digital video editing which makes the whole process more transparent. Analogue editing presents no visual representation of the process - pupils can only imagine what is happening as they tape from machine to machine, or feed in an external audio source to a vision mixer. On the Media 100 screen, all these processes are clearly visible. Though some of them are transparent enough, they needed, like any graphic representation, to be taught as well. In this project, we chose to demonstrate how the timeline worked visually on the white board first, drawing small thin strips on the board to indicate the visual 'line' of shots edited together. With the marker and cloth, it was easy to show them how quick it was to change a decision - to rub out one shot and replace it with another. They grasped this quickly. Another layer below the visual line already on the board represented the audio line. Because it was on a separate though parallel line, it was possible to rub out parts or move them along the line, without changing the visual line above. Again, they grasped this quite quickly. With this principle in their minds, they were able to then look at the computer screen and recognise the same concept. Instead of wiping things out on the white board, the use of the mouse was demonstrated. They were clearly excited and motivated by the speed and efficiency of the software.

It is clearly the intention, in some sense, of the software designer to represent the mental processes of editing. We put this to the group to see what they might think of the idea, and how successful the design of the front end of the package was:

Abby: Well I've never understood those letters and what those arrows mean and all that. ... But it really is so good to have chosen the titles.

Holly: 'Cos you do put things in layers [indec.]

Abby: - perfect -

Lorraine: It's so clear -

Holly: It's so simple to use -

Abby: - and the different colours -

Holly: Yeah, the colours help, the fact that you can have titles on them, the fact that you can shift things around when they're actually on the film.

Abby: And even things like [indec.] a really visual-based easy way of showing how it goes up and down - you haven't got like -

AB: What's that? The volume line.
Abby: - rather than like numbers or something, the way it just is a line - easy to use.

Lorraine: It's set out in a really clear way - you can look at it - you don't look at it and go 'Oh what's that', when you can think - visual.

AB: So you do imagine it like that in your head?

All: Yeah - yeah I do - definitely.

Gwen: You know - block - blocks - it's also that we've been taught to realise that - that the music and - the trailers and on other stuff - the music and the - thing don't - the visual - don't just come together ...

It looks as though, while some features of the design are less transparent (some of these, the arrows Abby mentions, are actually about 'unlocking' more complex editing functions which the basic display leaves hidden), much of the visual representation seems transparent to them. In some ways, then, the screen does function as a metaphor of the editing process, giving iconic form to the mental acts of sequencing, and, in Holly's term, 'layering'.

Gwen's last point, that they've been 'taught to realise ... that the music and the ... visual ... don't just come together' raises the important question of pedagogy. Buckingham, Grahame and Sefton-Green (1995) make the important point that a historical problem in Media Studies has often been a split between theory and practice, leading to 'a replication of the teacher's discourse, a matter of artfully mobilising academic terminology for the purposes of assessment.' They argue that we need to discover 'ways of ensuring an equal and dialectical relationship between theory and practice', and that practical production can open up a social space which allows for exploration of media texts which is much more subjective and playful than the kind of formal analysis often required by exam syllabuses.

While we would agree that an artificial discourse recycling received ideas is worse than useless, it may be possible to develop the position presented by Buckingham et al. This study suggests four points. Firstly, the teaching of this group has clearly succeeded to some degree in combining important concepts like genre, narrative and audience with processes of digital production that enable the pupils to work through these abstract ideas in material form, and, at the same time, appropriate them, internalise them, make them subject to their own textual decisions. This, perhaps, moves some way towards the kind of integration of theory and practice Buckingham et al argue for.

Secondly, it may be useful to extend our ideas about the nature of 'theory'. As Buckingham et al argue, it is damaging for 'theory' to be only associated with the analysis of, never the production of, media texts. After all, this activity offers a productive collapsing of the conventional boundaries of reading and writing - it is as much about the 'reading' of Psycho as it is about the 'writing' of the trailer. In English, current debates about reading and writing assume the possibilities of extensive conceptual understandings by pupils of linguistic forms and conventions, and the acquisition of a sophisticated metalanguage in which to express these understandings. The key point, perhaps, is to ensure that, as well as the integration of production and analysis, there is a promotion and tolerance of a wide variety of discourses in the classroom, so that the necessary bridges can be built - and at the right time - between the subjective languages of filmic pleasure pupils will be familiar with, and the more abstract languages of analysis. This will allow for highly flexible and nuanced hybrid discourses, rather than a hierarchy of preferred forms of language - and this is, in fact, the state of the actual classroom. If teachers can be comfortable with such flexibility, pupils will be able to move between registers, selecting and combining for the purpose at hand, as these girls do in the act of editing, in conversational reflection on their work, and in more formal written exam pieces.

The third point is about differentiated work. This is an able group, capable of sophisticated abstract analysis. Other pupils will need, and be capable of, less formal analysis in the theory/practice mix, and will find the complexity and quality of their understandings in the audiovisual mode and in the accompanying talk which presents their intentions, negotiates their decisions. The benefits of making explicit the forms of language in use will still be there - as Bruner notes, 'the metalinguistic gift, the capacity to "turn around" on our language to examine and transcend its limits, is within everybody's reach' (1996:19). And the new vocabularies of digital
media, visible in this group's work, will offer a first layer of metalinguistic scaffolding for such reflective work, simultaneous with the conscious, powerful act of editing: digitise, fade, timeline, edit, audiotrack, cross-zoom, sequence, clip, drag, copy, paste, save.

And fourthly, the distinctions between theory and practice, analysis and production, may be becoming unsettled in the context of digital media. In fact, the 'written' commentaries of the girls are also digital media productions: they are desktop-published pieces in Word '97 and Microsoft Publisher, incorporating digital stills of the film, archive posters of Psycho downloaded from the Internet, and screen grabs of the timeline of their trailer. This may be a text-based piece of work, but many of the features of digital media make it a production-like piece of text.

The final aspect of this work we want to consider is its social nature, and in particular its implication in the sense of self held by these teenage editors. Bruner makes the three related points that human selfhood is experienced as agentive; that this sense of agentive encounters with the world consists of both past encounters and of extrapolations of these into the future - 'self with history and with possibility'; and that narratives of self can only be constructed in a cultural setting. (1996: 36)

These girls bring histories of encounters with popular film that are an important part of their work in Media Studies. Holly and Gwen's account of spending weekends screaming over slasher movies forms an important backdrop to how they have made sense of Psycho; indeed, Gwen is now able to explain explicitly how horror movies often play on our society's naive conceptions of childhood and innocence, relating this to the Bulger case; and Holly can make the connections between Scream and Psycho that appeal to viewers like her: 'There's definitely something intimidating about the young vulnerable woman, because it's part of our culture, that we're more vulnerable than men'. And in suggesting a re-release for a modern audience, the teacher here allows for different social identities of the girls to be brought into play - the part of themselves that is that new audience, its immediate points of reference Wes Craven and Tobe Hooper; and the parts of themselves that can imagine the older audience represented by their parents. The other crucial role is that of the 'media expert' - like pupils whose sense of self acquires the feeling of what it is to be a scientist or mathematician, they have a sense of special knowledge and skill:

Lorraine: I can't watch a film now without going, 'Oh that's why they've done it -

Abby: Exactly, you know why it's raining, and why she's wearing black and you know why he's wearing white and ra ra ra.

Students often complain after a few months of studying the media, that they can no longer watch anything on television without an analytical and critical eye, that it no longer becomes • fun'. However, when you question them further, they are actually very proud and excited at acquiring this 'eye'. They speak as though they have been let in on a secret that not all of their peers know about. Watching their faces as they begin to work out how the audio, graphics, and images combine together to form meaning in, for example, the opening sequences of Terminator 2, is quite fascinating. They begin to strip down the layers further - to notice meaning in specific camera movements or shots, to notice the way in which voiceover and music work together on the audience. They wonder why there is a blue colourwash on the images they see. Most of all, they begin to understand film making decisions, and how all these components work together to create meanings they usually take for granted.

Their interview reveals how the act of digital editing has been for them a powerful emotional experience, one which has changed their sense of self, and provided an excitement that spills out onto the street:

Abby: Like, normally staying in school till six would be just your nightmare but we actually really got into it last night, and like HEH HEH HEH! [exaggerated triumphant laugh] and we walked out, like, with a smile on our face, as we were so satisfied it had worked!

Holly: We did, we talked about it on the street, 'cos it was so satisfactory.

And this change in their sense of self, of what they can achieve, carries forward for Lorraine into her 'possible' future self:
Lorraine: I mean, after doing this, I was, like on the borderland between Film and Media [A level] and now, after doing this, I'm definitely doing Media, it's so satisfying ... I'm better at - I was better I think at the written work and now after editing, I think we did this, and we're not like the most - people who are really amazing at editing, so I thought we did this ...

This sense of excitement and achievement, which the speed and capacity of digital media undoubtedly helps to produce, has been a common thread in our work on non-linear video editing, offering a practical and enjoyable experience to disaffected pupils, extremely able pupils, and a small group in Year 11 on an alternative vocational programme partly based at the local FE college, partly in our school editing suite, and partly at a local cable TV station where we jointly manage a community video editing suite.

Our research, then, will continue to explore the questions raised by this work. We want to find out more about the relation between verbal and audiovisual modes of communication. We want to analyse what happens when children increasingly gain access to the modes and resources of semiotic production unavailable to previous generations. We want to try to describe how what Bourdieu describes as their cultural capital is aggregated, a productive, if at times dissonant, meeting of experiences from home, street and the classroom, itself a site of cultural encounter which we have sometimes been too ready, in the past, to deny, to render inauthentic. The digital revolution in some ways recalls the past - a profusion of the visual before the spread of print literacy; the splicing together of image and sound in film; the sociocultural shifts accompanying earlier technological revolutions in communication. But it also brings new possibilities previously unknown, the most important of which, perhaps, is the rapidly increasing access, in schools and homes, to the textual technologies which for much of this century have belonged only to the giant industries of popular culture. The distinction between author and audience is at least partially dissolved by digital interrogation, appropriation and transformation. This audience is out of its seats.

NOTES AND REFERENCES

NOTES

1. Philip Brophy (1986), for instance, argues that the 'Hitchcock debt' represents a restrained aesthetic which is to be preferred to that of more recent 'body-horror', such as the films of David Cronenberg or John Carpenter. Our argument is that, while films may present themselves as operating strategies of implicit or explicit revelation of the terrifying image, they all depend on a dialectic between revelation and concealment. My image for this is borrowed from Kant's treatise on the sublime and the beautiful (1763/1960), in which he imagines the sublime image of awesome limitlessness as a vast desert which we people with imaginary monsters: the fear/pleasure is caused by both the emptiness and the monsters. The romantic concept of the sublime has been used by a number of commentators to describe the history of narratives of horror over the last two hundred years.

2. See Karen Raney (1998) for a clear and helpful summary of the history of the term 'visual literacy'.

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