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Introducing the technology *Craig Wilkie*

When I first started teaching the school had recently invested in a stunning new piece of IT equipment. It cost the same as a new car and was so heavy that it couldn't be moved without specialised equipment and a scaffold. The LCD projector had arrived.

The LCD projector was fixed into the ICT suite and the children and staff marvelled at the wonders of being able to project the image of the PC monitor onto a large screen for all to wonder at. All of a sudden, children could share their creativity and skill with the whole class, the teacher could demonstrate and model activities. In a sense, it was the transformational technology of the time. Looking back, IT was relatively expensive, not very mobile and not always easy to use. As a result, in schools, we went to visit the technology, often to a special IT suite or PC at the back of the classroom with a hopeful timetable displayed above it, ensuring all pupils had their regular slot on the PC.

Fast forward 20 years and technology has moved on considerably, however, as humans (especially younger humans) we are fairly impatient and always raising our expectations - constantly challenging and pushing technology to do more, to work harder. And that's a good thing. It's in schools that technology works the hardest. Teachers, Learning Assistants and educational professionals are extremely creative by nature, wanting to use the technology tools we have as innovatively as possible; to harness greater engagement, motivation and dare I say it, fun, by learning through technology.

In this book we use the term 'technology' to describe the various devices we use to share, communicate, organise and model media. This includes common technology: PCs, laptops, tablets along with some of the more unusual 'school' technologies such as audio recorders, virtual reality and mobile phones. We also use the term to cover software including tablet and phone apps.

Today, many schools are constantly working creatively and innovatively with technology that may have long passed its sell-by-date in the home environment. As a result, just using the technology isn't enough for 21st century learners. Staff in school need to apply their magic to the technology, using it creatively to complement a broad spectrum of learning experiences. Creative applications of technology give schools the edge over a home environment, where technology may be frequently accessed, but not enriched, through blended, thoughtful, structured activities which connect to topics, themes and interests of the children.

Think of technology like a pencil. On its own it's just an inanimate object. But in the right hands, with the right guidance, perseverance, creativity and vision, it can help to write an emotive poem, thrilling story, gripping cartoon, functional shopping list or passionate speech to move the hearts and minds of millions. It's the same with technology. With decades of technological progress and change, we can all now be assured that technology is here to stay and will fulfil an increasingly dominant role in the work, rest and play of our lives. Our role as teachers and professionals is to guide and support young learners as they navigate through the maze of technology we have in the 21st century, and will have, in the 22nd century, in a way that opens their opportunities and keeps them safe.

Our thoughtful application of the right technology at the right pace and time is the key to making the most of the technology we have and the skills, knowledge and understanding we individually possess as education professionals. This book encourages you to make links between the digital and non-digital experiences, giving professionals the choice to use or not use technology, according to each unique learning scenario.

Technology and multimodality

Technology is a natural friend to multimodality. Devices such as tablets (including iPads) are geared up to support the exploration and creation of multimodal content. Many tablets have an on-board camera, microphone and even sensors that can measure movement and direction. In this sense, it's never been easier to capture, organise and share rich media in a way that's mobile, with us inside and outside of the classroom.

The added benefit of technology is that children are able to collect, combine and edit their work in a way that is simpler and easier than ever before. This helps to reduce the barriers that have often turned the best Literacy lesson with an ICT activity into an ICT lesson with a touch of Literacy!

It's no oversight that we've used the term ICT and not computing. This is mainly because we believe that the 'C' of ICT, communication, is especially pertinent to Literacy and Multimodal texts and expressing learning through technology. A great school will be ensuring that children explore the world of computing in tandem with the use of technology as a tool beyond coding and computational thinking.

This book gives examples of how technology has been used - exploring the type of technology used and how we've applied it in different teaching sequences.

Apps and software

Throughout the book, we showcase apps (software applications) for you to download onto tablet devices (Android and Apple). In addition, we also share a collection of online web applications (websites that work as software) for you to use. Many of the apps and software titles we feature have free or low-cost licenses available. The online web applications will happily work on tablet devices and desktop and laptop computers, both Windows and Mac.

Technology on a budget

For each chapter of the book, we provide suggestions of software and hardware that could be used. Whilst we may focus on a particular app or piece of technology, we provide alternatives to ensure we appeal to the broadest number of schools and situations as possible. Many of the apps we feature have free or low-cost versions which give you a chance to have a play and weigh up if it's something you want to invest in.

Creating confidence

We're often quizzed about the technology brands that a school should invest in: is an Apple iPad better than Android tablet or should children use Apple Macs or Microsoft PCs? Our response is simple - children need a broad and rich variety of experiences to prepare them for a successful future. The most confident users of technology are those who have that experience of lots of different tastes and flavours of ICT equipment. It's a sure bet that the software and hardware we use in schools today will look wildly different in a few year's time when the children move into their next educational chapter or the world of work.

Therefore, we need to help children build perseverance and also to have a sense of expectation around technology - what it should be able to do and how (based on their experiences) a piece of software or hardware is likely to work in combination, to solve a given a problem. Teaching children how to use technology always comes second place to encouraging exploration, learning from failure, acting responsibly and being playful! Which organisation really wants to hire someone who has been taught by rote the operations of Microsoft Word 1997 but doesn't possess the resilience and creativity to apply technology effectively?

Support throughout this book

In each chapter we've included a Techy tips panel of helpful hints for you to make the most of the technology and suggest suitable alternatives to the technology we recommend. In addition, this book is complemented by a regularly refreshed website page that contains up to date information, resources and links for each chapter. This ensures that the content in this book is always up-to-date and relevant with the available technology of the moment.

Keeping children safe

Most things in life come with risks and responsibilities. As teachers and professionals we are all too aware of the dangers of technology. Naturally, this includes the use of the internet. Throughout the book we highlight safeguarding considerations. However, as technology constantly evolves, an app we suggest

today may include a forum or chat feature tomorrow that opens up new opportunities but also enhanced risks and responsibilities.

We always recommend that you work closely with the safeguarding, computing and ICT lead in your school to evaluate the appropriateness of the software and apps for the pupils in your school and consider carefully the risks and responsibilities of using each of them, in each individual situation. Excellent advice and guidance is constantly updated by CEOP (Child Exploitation and Online Protection) and can be found at CEOP's Think U Know website which we can't recommend highly enough:

<https://new.thinkuknow.co.uk/professionals/> Use the free CEOP classroom resources to complement and underpin all the work we showcase.

And finally

For all the work shared within this book completed in schools across Nottinghamshire with many different children, it's not the type of technology, the flavour of the operating system of device, the slickness of the software or the speed of the internet that has been memorable, but the thought that lingers at the end of the school day: how did that experience contribute to an enrichment of the children's experience and build a long term love of literacy and literature?

Technology will change from one day to the next, but the love of literature will last a lifetime. It's only through focusing on learning and children that we can apply and direct the right technology to make the difference each and every time.

The companion website

This book is accompanied by a website that provides information on software we have featured. Because software and IT changes so frequently, we have decided that this is a better medium to ensure that we can keep the web links and information about the software up to date.

On the website you will find:

- Links to the software that we have included in our case studies.
- Free trials or discounted software may be occasionally offered for schools who have purchased this book. We will present this information on the website. (These promotions will be limited to the offers made by the software providers and passed on to schools who have purchased this book via the website; they may be time limited with terms and conditions stipulated by the software providers.)
- Additional resources and information that relate to this project for you to use in the classroom.

You will find this information at <https://powerupliteracy.ukla.org>

UKLA

How do we make meaning from a multimodal text?

Petula Bhojwani

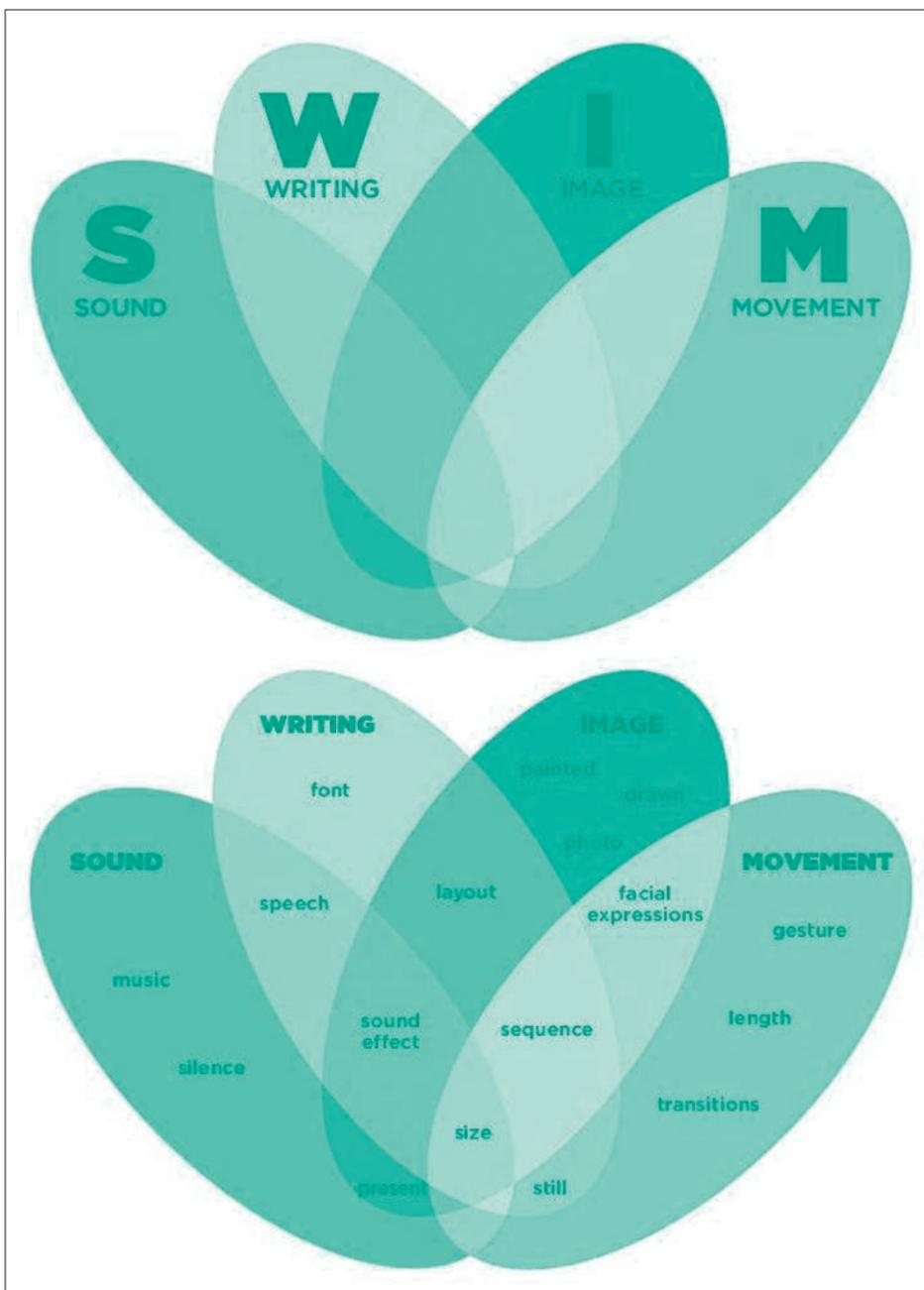
Without doubt, texts in the 21st century are becoming increasingly screen-based, through radio, television, DVDs and cinema, but also through presentations on the computer, through the ever-growing possibilities of the Internet, not forgetting mobile phones and the world of gaming with its many console machines. Communication and meaning-making are becoming ever more mixed and remixed. Thus literacy is ever evolving, exciting and challenging. Multimodality involves the complex interweaving of word, image, gesture and movement, and sound, including speech. These can be combined in different ways and presented through a range of media (Bearne and Wolstencroft, 2007).

Modes rarely exist alone but are combined with animation, with movement, with gesture and with words. This is due to the exponential increase in the role of visual. (Pahl and Rowsell, 2005; 41)

The diagram in Figure 2 can be copied and cut out as a double-sided fan (see Appendix). It shows four main modes which can combine to form a multimodal text, for example a picture book might have photographs, writing, make a noise when a button is pressed, and a flap feature which provides movement. Sometimes the modes are shown in several ways for example illustrators like Dave McKean and Lauren Child often

combine photographs, sketches, paint and collage in their illustrations. The fan resource can be used alongside a text to discuss how the text has been constructed to create meanings.

Figure 2 SWIM (Sound, Words, Image, Movement) diagram



The SWIM diagram

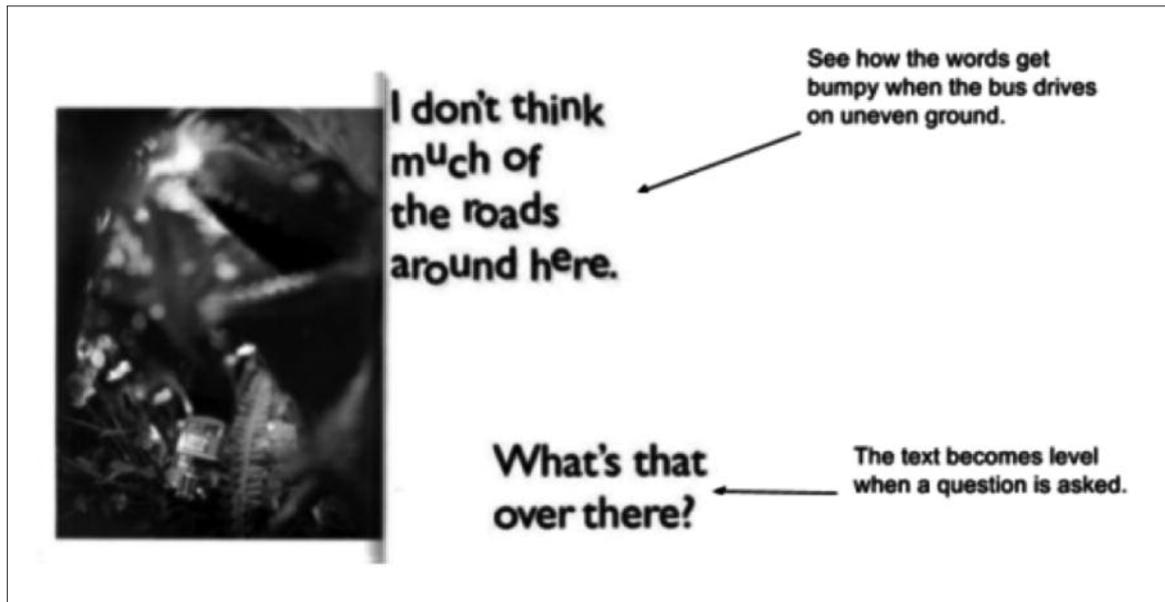
Picture books used in each project have all been explored with reference to the SWIM diagram. Initially the modes of image and words can be identified, for example, how the font is presented when a character shouts or if pictures are black and white to show the past. However, movement can also take place in pop-up books or be implied in a blurred image to show speed.

Discussions can take place around how sound is implied, although some books also incorporate sound buttons. When reading screen texts, sound and movement clearly become more identifiable. Developing discussions and

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using the SWIM diagram as a tool supports the critical analysis of a text that can strengthen understanding. As a result, children will be able to talk and respond to a text and transfer some of the ways of making meaning to their own compositions.



*Figure 3
Example
of a multi-
modal
text:
double
page from
Naughty
Bus by
Jan Oke*

The setting is not described in the written sentences because the reader needs to look closely at the picture. We can see in the picture that there is a dinosaur but this is not mentioned by the words. This page is an example of how images and printed words tell us different things. The author wants us to read both.

Tips

Is it important that the image of the bus and dinosaur is a photograph? Would it have the same impact if it was a painting or drawing in the picture-book?

Imagine you had not seen the picture of the bus near the dinosaur in this setting. What other objects and settings would add meaning to the words? Have a go at producing your own image. You could make a photograph or a drawing.

Using the SWIM diagram in school: a teacher's account

The following account is of a large Church of England Voluntary Aided Secondary School in Nottinghamshire. The school is a fully inclusive school with 1510 pupils on roll. The school's involvement with the Multimodal Project, to engage vulnerable learners, began in 2013. A pupil already enrolled on the project joined our school. This pupil had a learning difficulty so the management of the project came under the auspices of the Learning Support Department. The Department has continued to manage subsequent project members following their transition to our school. Our work with the project has been particularly successful. It has provided support and opportunities for the original group, but its methodology has had wider impact on other learners.

Through our engagement with the project it soon became apparent that a multimodal pedagogical approach could work in supporting pupils with literacy difficulties. As the Department works with small groups of pupils at key stages 3 and 4, a decision was taken to embed a multimodal approach to Literacy wherever appropriate.