

WHY TECHNOLOGY CREATES MORE BARRIERS THAN IT PULLS DOWN

Bill Thompson

Bill Thompson explained why new technologies can set up barriers to the arts, and looked at ways to 'do it well' with the technology.

The technologies we are all being encouraged to use are like the touch panel on the copier, providing a very limited communications channel between the audience and the arts organisation or artist. Photocopiers are not stupid, or at least they don't need to be stupid. But they do need better ways of figuring out what people want them to do. Marketing the arts is like being a photocopier. You don't know very much at all about what people mean by their actions but you still have to try to do your best in the circumstances.

Computers getting in the way

We are all encouraged to see technology as the solution to a problem. In the arts, ICT's (information and communications technologies) are presented as the way to develop advertising and marketing strategies, to enhance sales and provide customers or potential customers with the information they need, and even to create and display the arts. Digital art, online galleries and virtual performances are all happening, albeit in a rudimentary and experimental form. But it is not at all clear that any of this technology is either necessary, desirable or effective. It may be that, like many small businesses with their unvisited websites, the arts world has bought into a revolution that it does not want or need to be part of.

It may be that technology – a convenient shorthand for the whole range of digital information and communications technologies that underpins the Western economy and is rapidly being introduced into all areas of our daily lives – creates far more barriers to the arts for current or potential audiences. And if this is so, we need to consider what, if anything, can be done about it.

The process

Let's look at the various stages that a person has to go through to transform themselves into an audience member:

- Finding out what's on.
- Buying a ticket.
- Getting there and getting in.
- Experiencing the arts.
- Thinking about it afterwards (and telling other people).
- Doing it again.

We need to consider the range of technologies and their various uses:

- Advertising.

- Marketing.
- Sales.
- Fulfilment.
- Performance/installation.

We must ask whether technology is inherently alienating and intimidating, or whether it's just our current practice that creates problems. And we have to consider whether technology creates new barriers or simply rearranges existing barriers, or both. Or perhaps (it's possible) neither.

Thinking about technology

Computers are now widely used internally within most arts organisations, so that many administrative tasks are now routinely done on a networked PC. Bookkeeping, accounts and grant management are also done using spreadsheets, accounts packages and so on. Marketing materials are prepared and occasionally even delivered electronically. Audience development uses databases, statistical analysis and other tools. Computer-based ticketing systems now support box office, telephone, kiosk and online sales. Websites are used for promotion, information and sales. The creative use of new technologies in the arts is also important. Some artists use technologies to create works that are then exhibited or performed in the real world. Others create wholly digital arts.

What can we infer from this? That ICT is everywhere or about to be everywhere? Let's look to the future. I see five big trends:

- Capability.
- Agency.
- Interoperability.
- Ubiquity.
- Serendipity.

CAIUS: the key to the future

Every piece of hardware you use will have a processor embedded in it, giving it the capability to be part of the network. The software we run will be able to make decisions on our behalf, giving it a limited agency. All programs will work together, and interoperability will be taken for granted. The network will be ubiquitous. And, finally, new things will emerge from the combination of all these factors, and serendipity will provide us with new things to do and play with.

What barriers could exist?

Becoming an audience (or an audience member, for most arts events other than those running on the Edinburgh Fringe) is a complicated process. First there is the stage of finding out what is going on – what events or exhibitions or performances are available, where, when and at what cost. Then there is the acquisition of a ticket or other permission to attend. After that comes the journey and the entrance to the venue. And finally there is the experience itself, the transcendental moment of being an *audience member*. A range of technologies can mediate all aspects of the process, from the trivial

(having a printed leaflet that was prepared using a word processor) to the sublime (ticketless ticketing via WAP phones).

Most technology is currently invisible to the audience, although this is starting to change. At the moment the main problem is the telephone effect: the fact that effort goes into producing websites and technology-based initiatives which are then inaccessible to those who do not use the Internet/computers/kiosks. Like the early days of telephone polling, where the views of the poor were under-represented to the point where Dewey was expected to win the 1932 US presidential election, so the new marketing tools do not reach many potential attenders.

Think how technology has changed our experience of shopping:

- The corner shop circa 1930 (with home delivery by bike).
- The supermarket circa 1990.
- The online store circa 2000 (with home delivery by van).

And for each let's consider the user experience. A range of customer-based criteria can be used to assess the good, bad and indifferent aspects of all three:

- Flexibility – to the end of the process.
- User-centredness.
- Responsiveness.
- The intelligent interpolation of desires.
- How much work is done by the customer and how much is done by the supplier.
- How errors are handled.
- How overcapacity is handled.
- How convenient is the delivery/fulfilment process.

But consider it from the supplier point of view: they're interested in low cost, low overhead, high volume, high profit (even on low profit margin) – and the two are not compatible. Now think about online ticketing, or keyboard-based phone ticketing. Are we really making life easier for our audiences? What's wrong with online ticketing today? And how could it be improved?

Arts marketing is about creating awareness and desire. We hope that the fulfilment of that desire will be straightforward (but that's not guaranteed). In what ways are marketing strategies being determined by technology? Does the use of technology help? For example, if you buy in mailing lists then you only ever reach people who end up on mailing lists. And if you put up a website then you only ever reach people who use the Internet. And if you send flash-based e-cards promoting your work then you annoy even them. We cannot do it without the technology. Is there a way to do it well with the technology?

The barriers of experience

I want to think about this sideways, so let's now consider the artwork itself. I don't want to look too deeply at the fact that much digital art is also deliberately avant-garde and that the barriers here could be inside the head of the artist rather than a consequence of

the technologies used *per se*. Instead I want to think of the ways we interact with digital arts presented, as most are today, on a screen.

We can see that new technologies and new tools are widely used within the creative process, and there are a growing number of purely digital works of art out there. Architects were probably the first creative professionals to embrace new technologies fully, and the growing power and sophistication of computer-aided drawing and design tools can be traced to their ever-increasing demands for more powerful and usable programmes.

Few authors now work without the aid of a word processor. And visual artists have also embraced the technology, largely as a publishing or distribution arena, rather than a direct substitute for paint or marble. There are also many multimedia artists trying to create in ways that incorporate new technologies – some of the best-known practitioners are with us for the conference. However, even the best of these works preserve the distinction between artist and viewer/reader/consumer.

Last summer I was in Hastings and I visited a multimedia installation at the Hastings Gallery. It was an interesting work which was rather spoiled for me by the fact that the main form of presentation was through three large monitors embedded in 2m plinths. The screens simply did not work, because they resolutely refused to disappear from view.

For the arts themselves, the next stage is to move online into a virtual performance space and perhaps to allow the viewer to enter the work and be part of it. There are some experiments with this, and places like the ICA New Media Centre try to do interesting work, but they have not yet reached the point where performance is the same online as in the real world. We are some way from immersive virtual realities, and performing plays in 3D virtual worlds like Ultima Online, or dance work in Quake, is still bleeding edge rather than leading edge. Even the online galleries lack the quality of engagement that art really requires to be effective. This happens because the screen is a barrier to experience, not a carrier of emotional charge and human engagement. It limits the information available, in the way that the photocopier gets limited information about what its human user wants it to do.

There are two ways to use a screen: it can be a window onto a remote experience but there we need full-screen full-motion and enough polygons a second to approach reality¹. Or it can be a palimpsest, a manuscript that is erased and overwritten. That's what happens when we use a word processor or display still images of art on our screens – and it is always less satisfying than having a physical object that is somehow permanently inscribed with the product of the creative process (a book or a painting or a sketch or a score or even a CD or a piece of hewn rock).

We are used to the screen as window – it is called television and it works for passive reception of programmed experience. But I'm not sure we'll ever get used to the screen as palimpsest, however good the resolution and flicker-free it gets. I suspect that our brains are hardwired to enjoy and engage with marked physical objects. And if that's so, then the real future of technology is not the creation of 'digital artworks' but of 'digital art' – art that is created through but not of technology. After all, we use a wide range of

¹ This is a reference to game playing computers, where every image is made up of a large number of small triangles, squares, pentagons, etc. Looking at the human visual system as if it was just a graphics processor leads to the conclusion that 'reality is fifty thousand polygons a second'.

tools to create our art, but we do not need to leave them on show. Few galleries feel they have to display paintbrush and palette beside the works on their walls.

Building invisible tools

Finally, since we've been remarkably negative about the technologies we're all using, I want to pose a question: can we design technologies that would not create barriers?

After all, the relationship between technology and the arts is not all one way. In fact it is probably never just one way – the relationship is much more like that between mind and body, between physical illness and mental processes. Catching a cold isn't about having a cold virus in your bloodstream – the cold virus is always there, but sometimes your internal states (mental and physical) mean that the virus levels rise or fall. Sometimes the virus levels rise and you don't get symptoms. Sometimes – like before a big meeting or performance – one can decide to become ill, and develop real symptoms and a 'real' illness without any observable change in virus activity. Go figure.

So it is with technologies. If we look at the tools available to arts organisations we can unpick the history of any one of them and what will emerge is that it is the interaction between the two realms that really matters. It is not – and has never been – the case that the IT industry builds stuff and businesses or artists take it and use it. So it should be possible to influence the future development of technologies and tools.

Some conclusions

Good technologies, like magic, are invisible. We grow accustomed to them and they disappear from view. Perhaps the distance we feel from screens and keyboards is just a stage in our technological evolution, but even so I fear it is too late for us to change. Information and communications technologies – the computer, the Net and the phone - will always be 'out there', separate from our creative instincts and processes because we did not grow up with them. It is partly because of this that we feel a sense of triumph at having mastered this alien technology and will always want to make the technology visible, either in the artwork or as part of its exhibition, performance or experience.

Perhaps our children will be free of this urge, because to them the computer may disappear from view in the creative process in the same ways as the brush or chisel or guitar or stage simply ceases to exist to the artist who is using it. After all, the real goal is not to make better use of technology, but to make the technology invisible. Once that is done we can get on building audiences for the wonderful art that will be created with the help of this same technology.