

The Future of Factual Television: Meeting the challenge of the digital age

A viewpoint from Silicon Valley

Television programme-makers, like all content producers, are wrestling with the effects of the digital revolution. How will it alter the way we make programmes, and the way audiences experience them? How do we adapt linear methods of story-telling, such as the traditional long-form documentary, for the online age?



Introduction

This is a period of transformation for broadcasting. While traditional content and forms of delivery remain popular, increasing numbers of our audience inhabit a new media landscape, associated with the shift to online, on-demand viewing.

This landscape has characteristics that are changing audience expectations, and challenging the way factual programme-makers think about their role.

- It's about **being able to choose** when and how you consume content, and being able to discuss it, adapt it and share it.
- It's a cumulative landscape, where new stuff doesn't displace the old, it just adds to the pile. With almost inconceivable amounts of stuff for people to choose from, even the greatest content is worthless, **unless it can be discovered**.
- Ultimately, **all content is data**, temporarily arranged or aggregated by its original author. But easily re-arrangeable by others to suit their personal needs.

While the technical implications of this new landscape have begun to be addressed by broadcasters, the scale of its wider implications has arguably not yet been absorbed.

And those implications are likely to be felt most keenly in the area of factual television – programmes about subjects like science, history and culture, intended to inform as well as entertain. Such genres tend to demand more from viewers, and have come to rely on the constructed, long-form documentary to convey their message. They already struggle to attract younger viewers, and in the restless hyperlinked digital world, their approach risks becoming irrelevant.

In particular, the information-rich web represents a challenge to the model of knowledge, learning and story-telling that underpins such programmes. The “we-know best”, top-down approach of traditional TV - and learning in general – is under threat from tools that enable and encourage people to construct narratives for themselves.

To a generation of producers and journalists trained to focus on structure and the mechanics of narrative story-telling, this is deeply de-stabilising.

But it is also an opportunity. Because while the current focus is on how users increasingly want to *disaggregate* our content, less thought is being given to ways in which we can help them *re-aggregate* it.

This report explores the technologies that are driving this change, and the new forms of digital story-telling that are emerging.

It outlines practical ways that factual TV programme-makers can use these technologies to better engage with audiences, especially those younger people who are un-attracted by present output. And suggests models that will allow us to re-invent our notions of story-telling, without surrendering complexity and context.

In the long-term, we need to rethink our mission. We need to see that an empowered audience could be more, not less engaged with our programmes; better not less informed. But we will have to surrender control. The audience really will have to be at the heart of everything we do.

Method

This report is based on research carried out over six months as a Knight Journalism Fellow at Stanford University. It is not a comprehensive survey of the digital media field, but an attempt to take the views of a particularly forward-thinking and influential group of experts – the entrepreneurs, academics and media professionals of Silicon Valley – and apply them to some practical questions that broadcasters face.

But I also spoke to journalists, TV producers, film-makers, museum directors and artists - amongst many other groups - to explore these same questions.

I would like to thank all those who talked to me. I'm especially grateful to my co-Fellows, whose insights into the wider challenges facing journalism helped frame my thinking, and to staff of the John S Knight Fellowship, for their support.

Out of these discussions, I have first extracted four key concepts that I believe should underpin how we look at the digital landscape. I explore some of the near and medium term technologies that are being developed, and discuss how they will influence television production. And I then discuss how these technologies offer a new way of looking at the methods and goals of programme-making.

The changing digital landscape

To understand the full impact of the challenges we face, here are four key trends that are helping to define the future of the digital landscape.

1. Our future audience – chronic multi-taskers

“Is Google making us stupid?”

Nicholas Carr, The Atlantic, July 2008

“The whole notion of the thread, of building an intellectual edifice, has gone”

Prof Cliff Nass, Stanford University

Media multitasking – the simultaneous use of unrelated media content - is increasingly a fact of life. It’s an inevitable step in a 100 year trend, as each new media product steals time from old media and non-media activity. We simply don’t have time to absorb all the information available to us in a sequential fashion.

Modern working practices demand it of many of us. But it’s particularly prevalent amongst young people.

Recent research at Stanfordⁱ has sought to understand what effect chronic multi-tasking has on our brains.

It suggests that high-level media multi-taskers are:

- Bad at filtering out irrelevant information.
- Slow at switching between tasks.
- Inefficient at recalling and managing information.

In other words, they are lousy at all aspects of multi-tasking.

Crucially (for anyone involved in content production) chronic multi-taskers tend to search for new information rather than accept a reward for putting older, more valuable information to work.

They don’t task switch because the thing they’re doing is not enjoyable or useful. It’s because the next thing will always be better. Immediacy is more important than focus.

Professor Cliff Nass, one of the team involved in the research, believes this accounts for much of the anecdotal evidence he sees in his students’ behaviour.

In 2008, people consumed three times as much information each day as they did in 1960. And they are constantly shifting their attention. Computer users at work change windows or check e-mail or other programs nearly 37 times an hour, new research shows.

In a [report](#) published in March 2010, Nielsen found that 59 percent of US consumers had watched TV while simultaneously surfing the Internet .

“ They don’t want to read long books – they want extracts. They won’t read hard stuff – if they don’t get it straight away, they won’t stick with it. Immediacy is valued more than the idea of paying attention to something or someone.

“Which means they can’t sustain a narrative. The whole notion of the thread, of building an intellectual edifice, has gone”

The work of Nass and other researchers backs up the critique articulated by those like Nicholas Carr ⁱⁱ that the Net, by its very nature, is reshaping the process of thought – chipping away at our capacity for concentration and contemplation. We are, as a culture, loosing the ability to “loose ourselves” in a subject.

Others like Clay Shirky take a more optimistic view about the cognitive benefits of the internet (he argues that the Net is allowing us to benefit from a cognitive surplus previously sucked up by the passive consumption of TV), and point out that the speed with which we can follow the trail of an idea, or discover new perspectives on a problem, has increased by several orders of magnitude.

But there is little argument that for content producers of all sorts, the challenge of holding people’s attention is only going to get harder.

2. The future is shared

It’s a gold rush out there. Social media is like the web was 15 years ago. You can’t *not* do it. Which also implies that much of what is happening is hype. But some trends are clear:

- Social media is changing from being simply a way that people make use of the web, to being the defining characteristic of the web itself. Jeff Clavier, one of Silicon Valley’s most powerful investors, argues that Facebook is becoming the identity system of the web, and Twitter its communication network. Already, almost half the people using these sites check them first thing in the morning.ⁱⁱⁱ
- It’s not just for kids: the median age for twitter is 31, for facebook it’s 33. 46% of online adults in US use social media.^{iv}
- The emerging power of social media is content discovery - “social breadcrumbs” that lead people though the noise of info-overload - and a tool for collaboration.

“At any given moment, Facebook users are trading bazillions of links to articles, blogs, videos, photo images and more, pointing the way to their friends in a giant did-you-see-this mosh pit.”

Kara Swisher, *All Things Digital*

- “Friend-rank” has the potential to replace “page rank” as the most effective way to organize the web. Google spends billions on indexing content. By using Facebook Connect, or its simple “Like” API, Facebook gets the web to index itself.
- Many companies, and non-profits, are seeing the marketing benefits of social media’s potential to allow real-time, low-cost, trackable conversations with users, that empower customers to become brand ambassadors
- In the bigger picture, its real benefit to businesses is the huge amount of data that is being generated about people’s lives, and those of their friends – their sociograph. Powerful companies will be those with the ability to mine this data. This will change the way we live, communicate, make money, shop, collaborate and more. Instead of actively searching for things, we will be presented with them, as we live our lives.

3. The future is permanent

One of the biggest driving forces behind the need to rethink models of narrative, is the shift from ephemeral to permanent content.

In the old model, transmission or publication is the focus point. Programmes and articles are viewed (or it’s assumed they are viewed) in isolation from previous material. Everything has to contain at least some element of “new readers start here” – which makes for some very inefficient use of resources.

But as the web becomes a database of every piece of content ever made, then it’s possible to see ways in which the topic or theme becomes the key organizing principle, not the story. Each new piece of content contains links to everything else written or produced on the subject (by an individual journalist, or publication, or TV channel), so the full expression of the effort is not the story, but the entire repertoire.

The challenge, of course, is to map and understand the “real state” of the consumer – what have you already seen? How can I tailor content to allow for that?

This approach is already being tried in online newspapers and magazine. Google Labs ran an experiment with the New York Times and the Washington Post called [Living Stories](#), which sought to bring all articles on a given topic under the umbrella of a persistent url, with links to earlier content and background articles. New articles form updates.

The screenshot shows a web page titled "The Struggle Over Health Care" with a "Living Story" interface. At the top, it says "The New York Times on Google" and "All stories | Subscribe to email updates | RSS feed". A note explains that the page is part of a Google Labs experiment. The main content area has a "Summary" section followed by a "Timeline of important events" with a date range from Dec 21, 2009 to Feb 7, 2010. Below the timeline, there are several "All Coverage" items with titles and dates, such as "Obama Plans Bipartisan Summit on Health Care" and "Timeline of important events".

[Salon.com](#) is already using a slightly more elegant version. Each new story is revealed within a topic page, edited (or curated) by a journalist, that includes blog-like links to older articles or related content.

Salon's CEO, Richard Gingras says that this is a response both to the browsing habits of readers (he claims the abandonment rate on a 2000 word article is 71%), and to the economics of web publishing – he gets more content for less money. But he also believes this represents a new model of narrative. Users choose what they want, at the depth they need.

“Every new technology has impact on media - not just the business model, but the form, the writing style,” he says. “We need to rethink the model completely.”

4. The future is semantic

The web was designed for humans, not machines. From a computer's point of view, it is a messy, complex place, full of competing, inconsistent standards. Documents, graphs, videos, and pictures are things that we can easily read and understand simply by looking at them, whatever their format. But computers, on their own, can't always make sense of them.

The semantic web is a vision of the web intended to solve this problem. People commonly refer to the semantic web as the next generation of the World Wide Web – or, sometimes, Web 3.0. The hope is that it might improve data aggregation to such an extent over the next decade that an internet search that now yields hundreds or thousands or millions of responses (many not associated with the searcher's needs) will generally deliver only the specific information he or she seeks. Machines will be able to look at documents and extract the who, what, when and where, and allow this information to be linked and layered together.

It relies on efforts to develop uniform standards for allowing the databases that underlie the web to talk to each other, and data models that can be used to express any concept.

Whether the vision of semantic web enthusiasts (like Sir Tim Berners Lee) will be fully realised is the subject of much debate. And some argue that the project is fundamentally misconceived – it assumes the world *can* be made sense of. But its impact is already being felt.

[OpenCalais](#), for instance, is a semantic toolkit developed by Thomson Reuters. Stories can be fed into its “extraction engine”, which uses so-called natural language processing to recognize the people, companies, facts and events referred to in the story. Basically, it works out what the story is actually about. It can then link the story to

other stories about the same people, companies or events, or to freely available data from sources such as Wikipedia or IMDB.

News organisations use this technology to automate content tagging, or to produce micro-sites that serve very narrow communities with highly relevant content. Others use it to aggregate and organise content into topic hubs, and automatically generate new topic-based sites when a subject becomes hot.

Users of the [BBC's music site](#) will have experienced the benefits of semantic web technology. A search of the site's artists database brings up information on bands and musicians from Wikipedia, and an external database called Musicbrainz, as well as the BBC's own data such as playlists. The system only works because the various databases all conform to the "linked data" standards introduced by the semantic web initiative.

Case Study: The Enriched Journey Viewchange

[Viewchange](#) is a glimpse of how the semantic web could change the look and feel of online viewing.

It's a prototype of a video hub that uses semantic search technology to categorise and tag video, helping viewers find the individual sections of longer programmes that interest them, and providing content producers with an efficient way to manage their material online.

It also automatically generates links to related content that dynamically refresh as the video plays. Linked content could be other videos, articles, databases or blogs – anything that helps viewers dig deeper into subjects that interest them.

The overall effect is to provide viewers with an easy way to find video content and navigate through it, but also to offer a massively enriched journey as they do so, without the need to construct elaborate websites for individual programmes.

The system's ability to "understand" videos (broken up, if required, into shorter segments) relies on using [Zemanta](#), an extraction engine similar to OpenCalais, to analyse programme transcripts, and generate a list of topics, weighted by relevance, that it believes the video is about. And it employs the Linked Data model, which assigns unique identifier tags to specific "entities" and organizes data in ways that can be read and understood by other applications. This allows the site to easily differentiate whether the word "Sahara" is being used to refer to the desert in North Africa or a hotel-casino in

Las Vegas, and to communicate about the correct topic with other websites that hold related information.

The semantic web offers both benefits and challenges for programme makers. By bringing new efficiencies to the way programmes can be categorised and tagged, it will make content easier to find. It will make it easier to offer viewers and users a rich menu of linked content. And of course, allow us to discover new sources of raw data to help tell stories.

But by increasing the “web-iness” of the web, it makes the challenge of keeping audiences engaged with our own content that much harder.

The Technology that's coming

So what are the technologies being developed to take advantage of this new digital landscape? These are the key tech-trends that programme-makers will increasingly have to adapt to, or compete with.

1. Video search

In the digital world, maximising the ways that people can arrive at your content (whether for public service reasons or profit) is vital.

At present, web-based video search is crude. Results are only as good as the (usually limited) meta-tags attached to the original clip. Even if a search takes you to a particular video, it is not usually possible to go straight to the section that you are interested in. As a result, much TV online content remains hard to discover.

Part of the problem is the present reliance on relatively crude meta-data – which is generated by content producers, or drawn automatically from limited information such as programme summaries.

The ability of computers to automatically “watch” video and extract meaning lags way behind their ability to analyse text. Truly effective “high level scene understanding” is probably five if not twenty years away.

But much of the technology to improve video-search by other means already exists, and is steadily being brought together to produce a “good-enough” solution:

- Improved speech to text technology allows the generation of transcripts, where these are not otherwise available.
- Better semantic text analysis allows computers to “understand” the meaning of text and automatically generate relevant, accurate tags (see case study above).
- Tags can be refined and added to through crowd sourcing. (The You-Tube rival video site, [Metacafe](#), uses this technique through its [wikicafe](#) community, which allows users to edit and improve video titles, descriptions and tags.)
- Search inside technology can connect text back to discreet sections of video. The potential of this was demonstrated by a [video](#) of President Obama’s inauguration speech produced by Delve Networks. Users can search the video for individual terms (eg. economy, Iraq), and be taken to specific points in the video related to the search. A “heatmap” indicates the level of relevance of the different parts of the video.



Case Study: Moment-based TV Thought Equity Motion

Thought Equity Motion is one of a number of companies specialising in helping content producers manage and monetise their archives (the BBC is one client).

Frank Cardello, part of their management team, describes their approach as “moment-based” production and consumption. Their technology uses facial recognition, transcripts and other techniques to break up a piece of long-form video (a basketball game or a science documentary) into as many as 150 different “moments”, each with a url and metadata attached. These can be individually licensed at sufficiently low cost to allow them to be used even by bloggers.

“The front door of broadband is anywhere” says Cardello. “People will still produce 30 or 60 minute shows in the future. But this is how you will unlock their value once they’ve been broadcast”

2. Geo-location

Fueled by the ubiquity of GPS in modern smartphones, location-sharing services like [Foursquare](#), [Gowalla](#), [Brightkite](#) and [Google Latitude](#) are suddenly in vogue.

But location is bigger than any single application - it's a new layer of the Web. Increasingly, every piece of content will have geo-data attached, allowing it to be linked to maps, or downloaded to users in specific locations. Likewise, our whereabouts may optionally be appended to every Tweet, blog comment, photo or video we post.

Already, smart phones can provide users with a great deal of location-specific content:

- [EveryBlock](#) reveals data including crime statistics, property values, and planning applications related to the spot where you are standing.
- An application called [Wikitude](#) allows you to point your phone in the direction of a mountain range or historic building and read a Wikipedia entry about it.
- [Yelp](#) and [Urbanspoon](#) let you use the camera and GPS on the iPhone to display comments about the restaurant in front of you.

As more and more television is consumed on mobile platforms, there is enormous scope to offer more than user-generated encyclopedia entries and reviews about individual locations. Imagine pointing your smartphone at a building or landscape and being offered a stream of stories and images about its history, its geography, its wildlife – drawn from the archives of the BBC or other broadcasters.

It would be a huge step towards offering viewers content they can use, at the time they need it.

3. Augmented reality

Underpinning the potential of geo-located content is the associated trend towards augmented reality - data overlaid on your real-time environment.

Smart-phone applications like [Layar](#) take the yelp/urbanspoon model to a higher level. It uses GPS, a compass, an accelerometer and a visual display recorded by the phone's camera to overlay relevant information or annotations, called layers, on the display. The layers can, for example, show visitors in Berlin where [the Berlin Wall](#) was located, give directions to the nearest restaurant or show apartments that are for sale. Developers can create their own layers – to date there are 700 of them.

Bing maps illustrates how sophisticated this technology is becoming. As well as obvious stuff like traffic conditions and local businesses, it also integrates hyper-local blogs, flickr photos and historical images, all matched into a 3D map, so that the additional content merges seamlessly with the street-views stored online. (This [TED talk](#) gives a good illustration of how the application works.)





More remarkably, as this still from the talk illustrates, Bing maps is also able to blend live video into its street scenes. Microsoft says the same approach could equally well be used on the spot, for augmented reality.

In the future, it's likely that this technology will allow optional layers to be added to online video, providing another way to enrich content.

4. Gaming

In almost every field, digital gaming sets the pace.

The Facebook application Farmville - a farm simulation game – has been one of the drivers in the growth of social-technology. In less than a year, it's acquired over 82 million players - 20% of all facebook users – and allowed its developer, Zynga, to be one of the few companies that have so far managed actually to make money out of social networking.

Microsoft's Xbox Live, has established a social network built around content that broadcasters can only dream of. It already has 8 million male subscribers aged 18-34, adding 20 million new friends a month. At the end of 2009, it began pulling in users' Facebook and Twitter streams, creating real-time conversations around the games they were playing.

Some argue that in future, all media will have elements of gaming attached. Certainly, the success of social games like Foursquare suggest it can be an effective tool in building engagement – people will go to great lengths to seek out content if they are in

competition with their friends. And the more negative associations of digital gaming (time-wasting, introspective, unproductive) are being challenged. Academics like [Prof. Byron Reeves](#) at Stanford University are studying how game psychology could be applied in the workplace in areas like leadership, collaboration, innovation and productivity.

Building games around complex factual content remains a relatively undeveloped field. But there are innovative models that suggest what could be achieved. Chris Swain, at the University of Southern California, has pioneered games that explore serious journalistic subjects, like [voting systems](#).

And ABC Australia has covered the issue of climate change and geo-engineering by developing an online alternative reality game called [Project Bluebird](#), in which players can only solve the mystery behind the plot by discovering for themselves real facts and information about global warming.



New ways of thinking

The combination of technical and cultural change is breeding new ways of solving problems, and new ways of understanding the world. In the longer term, these are perhaps the changes that will be of most significance to programme-makers.

1.Design Thinking

“Design thinking” is the key mindset that underpins how many of Silicon Valley’s most dynamic companies approach problem solving: a human-centered, prototype-driven process for innovation that can be applied to product, service, and business design. It draws on skills originally associated with pure design – it’s famously practiced by IDEO, the legendary Palo Alto design consultancy responsible for the first Apple mouse and many other iconic products – but is now being used in fields as varied as education, engineering and ecology.

Formally speaking, the design thinking process has seven stages: *define, research, ideate, prototype, choose, implement, and learn*. Within these seven steps, problems can be framed, the right questions can be asked, more ideas can be created, and the best answers can be chosen.

For programme-makers the most interesting, if challenging, elements are the emphasis it places on putting the needs of end-users at the heart of all decisions; on moving to a low-resolution, testable, prototype as soon as possible; and on embracing failure as a key part of the design process.

That the notion of applying this to something like programme development (“what, show our storyboards to the audience?”) seems so alien is a reminder of how locked in our creative habits we have become. But the promise of design thinking is not just about coming up with better programme ideas. It’s about innovation in all aspects of production.

2.From data to wisdom

“We talk about the curse of information overload... What if we can actually turn that upside down, so that instead of one thing to the next, we get used to the habit of being able to go from many things to many things, and then being able to see the patterns that were otherwise hidden? If we can do that, then, instead of being trapped in data, we might actually extract information. And, instead of dealing just with information, we can

tease out knowledge. And if we get the knowledge, then maybe even there's wisdom to be found."

Gary Flake, Microsoft Pivot, Feb 2010'

What makes us anxious, as programme-makers, about a digital world where users can so easily flit from one thing to the next, from one nugget of content to another? If we have any sense that our programmes are about sharing knowledge, then one anxiety is that without us to hold their hands - without our carefully researched and constructed narrative thread – then viewers will be lost and confused.

Can they really be trusted to do this by themselves?

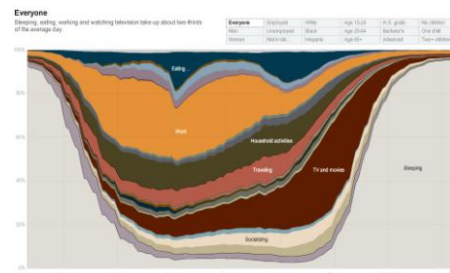
Can they *manage* to do this by themselves? If the underlying knowledge model of the internet is as a gigantic database – an encyclopedic, wikipedic accumulation of facts or atomic units of information, to be re-assembled in any pattern of our choosing – then how can we possibly make sense of all this data that's on offer?

Traditionally, that has been precisely the job of journalists and producers (along with teachers, writers and others of course).

But increasingly, the ability to extract meaning from enormous amounts of data is becoming available to everyone. The future of the web will in large part be about using data to tell stories.

At one level, simple word-clouds allow users to see patterns out of text. [Dipity](#) helps users organize information by creating and sharing timelines from the latest news, YouTube videos, Flickr photos, Twitter and more. [Newsdots](#) produces an interactive map of how every story in the news is related.

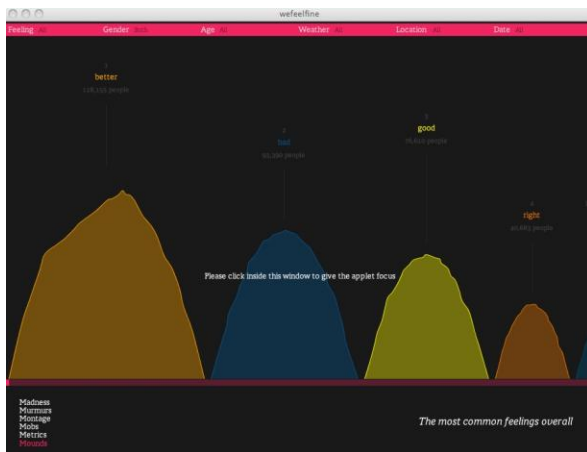
More elaborate data visualisations are able to tell complex stories about our lives, such as the [map](#) showing the spread of Walmart stores across America, which helps us understand modern retailing, or this extraordinary New York Times [visualisation](#) of how we spend each hour of the day, broken down by demographics.



Case Study: An almanac of human emotion

We Feel Fine

[We Feel Fine](#) uses the data-gathering power of the web to explore human emotion on a global scale. Designed by Sep Kamvar and Jonathan Harris, it is part art-work, part computational social science, and well worth exploring. Its approach is increasingly being replicated on a smaller scale by others (see the Guardian's [visualisation](#) of the twitter traffic during World Cup soccer games).



As the designers explain on their website, every few minutes, the system searches the world's newly posted blog entries for occurrences of the phrases "I feel" and "I am feeling". When it finds such a phrase, it records the full sentence, and identifies the "feeling" expressed in that sentence (e.g. sad, happy, depressed, etc.). The age, gender, and geographical location of the author can often also be extracted and saved, as can the local weather conditions at the time the sentence was written.

The result is a database of several million human feelings that can be searched and sorted across a number of demographic slices: do Europeans feel sad more often than Americans? Do women feel fat more often than men? Does rainy weather affect how we feel? What are the most representative feelings of female New Yorkers in their 20s? What do people feel right now in Baghdad? Which are the happiest cities in the world?

The interface to this data is a self-organising particle system, where each particle represents a single feeling posted by a single individual. The particles' properties – color, size, shape, opacity – indicate the nature of the feeling inside, and any particle can be clicked to reveal the full sentence or photograph it contains. The particles careen wildly around the screen until asked to self-organize along any number of axes, expressing various pictures of human emotion.

We Feel Fine illustrates how the enormous amount of data freely available on the web can allow us to ask (and answer) new questions. But it also represents a model of the way that web allows us to see both the detail, and the bigger picture.

The tools to manipulate data like this are becoming available to everyone. [Manyeyes](#) is a site that allows users to upload data and create their own visualisations.

More ambitiously, Microsoft's [Pivot](#) is an experimental interface that allows users to visualise not just data, but all content – including images, video and web pages – and

see the relationships between the individual pieces of information. By visualising hidden patterns, Pivot enables users to discover new insights while interacting with thousands of things at once.

But there is a bigger, more transformative trend behind this.

Put together, what these new approaches amount to is a re-imagination of what we mean by knowledge and understanding. The ability to see, simultaneously, both the detail and the big picture - both the individual piece of information, and its relationship to the wider context – could be as powerful a tool for gaining insight as the ability to engage with an expertly curated TV programme or book.

And as classroom evidence suggests, the very act of assembling information for oneself, rather than passively absorbing it, can encourage greater understanding.

In this context, the declining attractions of the conventional long-form constructed programme to many sections of our audience, may not be as severe a blow to the public-service “mission to explain” as many might fear. But it suggests a re-definition of our role, from “givers” of knowledge, to “enablers”

What next for programme makers?

The argument here is not that the traditional model of TV production and delivery is going to disappear anytime soon. From live-event talent shows, to dramas, to documentary series, television has proven that it still meets the needs of many people.

And while new technology may change people's behaviour, it won't change their nature. Our audiences will continue to respond to great stories. They will continue to need practical information, and amazing insights into the world we live in. The anytime, anywhere characteristic of the digital age arguably makes good content more important than ever.

But the apparently inexorable decline of factual programming outside a few protected, public-service arenas, should serve as a warning. Failing to understand and prepare for the challenges outlined above risks leaving us as one of the first stranded victims of the retreating technological and cultural tide.

So how should we as programme-makers respond? How can we take advantage of these changes to better serve our audiences?

1. Now is the time to innovate

Many of the technical features of the new digital landscape, as it affects TV, are already in place, or about to become operational.

The BBC's own [Wildlife Finder](#), already suggests how a linked, permanent content environment might work. Developments like Project Canvas (an industry-wide platform for internet TV) in the UK, will soon allow users to search for and within programmes, to share what they like and see what their friends are watching, and to follow links away from it and (hopefully) back again. The world in which every moment of a programme becomes a potential entry point for viewers will be here.

Yet as writers like Clay Shirky have pointed out, the effects this will have on our audience are still being worked out. Despite knowing the inputs into this new ecosystem of personalisation, participation and sharing, we can't know the outputs because there's so much complexity. But as Shirky puts it:

"The way you explore complex ecosystems is you just try lots and lots and lots of things, and you hope that everybody who fails fails informatively so that you can at least find a skull on a pikestaff near where you're going. That's the phase we're in now."^{vi}

It is possible at the moment to point to examples where attempts by broadcasters to engage with audiences in a new way have met with relatively lukewarm response. And

in the wider field of social media, it is true that the majority of users are observers rather than participants.

But to use this as an argument that there is no need, or point, in trying new approaches would be a mistake. There is compelling evidence for instance - from the success of Wikipedia to the growing phenomenon of social philanthropy – that when you offer people the opportunity to produce and to share, they'll take you up on that offer. We just haven't figured out the best way to do that yet.

So the first thing programme-makers need to do is to accept this challenge and start coming up with our own solutions, rather than wait for some magical solution to appear. And broadcasting organisations themselves need to further develop business cultures than reward innovation as much as ratings success.

We need to apply more of the lessons of design thinking – the habit of innovating, testing, refining. And increasingly we have the tools to do that.

2. Re-inventing the conventional

“The traditional relationship with our audiences was based on the premise that “we know best” i.e. we won't ask you or find out your needs and what you really want from us - we'll give you what's good for you and you'll jolly well love it. Even the so-called focus groups were largely designed to 'sell' our ideas to potential audiences in the expectation that they'd be blown away by our creative brilliance. Hardly surprising then that we generated, developed and produced content with little regard to the end users, and made predominantly subjective, story improvement decisions across the creative process.”

Frank Ash, BBC Training and Development

The linear long-form documentary is not going away. But nor is the problem of its declining attraction to significant parts of the potential audience.

Digital technology now gives us the tools to approach this challenge in a different way. Instead of chasing the chimera of trying to somehow make our programmes ever more engrossing – younger presenters, bigger pay-offs, cooler effects – we should be trying to make them more *relevant*.

We can do this by tapping into the shift from observing to participating, to break down the “us and them” relationship with our audiences.

Not only do audiences expect to have a 2-way relationship with content producers, the Net now makes it incredibly easy to do this. Social networking sites allow online communities to form and reform around subjects that people care about, communities

that programme-makers can listen to and talk to. And by analysing those social networks, we can track what other subjects our audiences are interested in.

Savvy corporations like Ford and BestBuy have already absorbed this lesson. They use social marketing to learn from their customers, and build dialogues around their brands. They recognise that if someone takes the trouble to become a Facebook fan or a Twitter follower of a product, then that person is likely to be worth listening to, or influencing.

US cable networks are already exploring ways to turn selected “super-users” into “influencers”, who get special access to material in exchange for giving feedback on new content or talent.

And non-profit organisations like charities or lobby groups have also shown how social networks can be used to amplify messages and inspire people to act.

Broadcasters have always used focus groups of course. But apart from being expensive, they have also been cumbersome. Now feedback can be instantaneous and informal: “we’re thinking of looking at this – what do you think? What questions would you like answered?”

There are already examples of where broadcasters are doing this well – using social media to build dialogues with audiences. They tend to be associated with live programmes, where the feedback loop is faster, or entertainment programmes, where the core level of audience engagement is already high.

Yet even for factual programmes, there are audiences that are passionate about what we do. People we can engage with. However, there are lessons to be learnt.

Conversations need to be conversations. There’s a thriving industry developing to advise companies on how to use Twitter and Facebook, and the number one mistake they identify is to view these as simply tools for promoting out: “watch my show tonight”. They need to ask questions and offer useful information. And incoming traffic needs to be responded to. Participation needs to be recognised.

The San Francisco-based cable network Current TV, which has pioneered several aspects of participatory TV, experimented with allowing users to determine the running order of its news bulletin by online poll. “Legalise marijuana” stories topped the poll for three days running and the exercise was soon abandoned.

Communities need to be built or existing communities cultivated. It would be hard for an un-produced documentary to build its own community of fans (though see the examples below). But communities may already exist around programme components, like the onscreen talent, the location, or the subject area. Specialist communities can be built up over time – interviewees, experts, interested parties. Broadcasters could build topic

communities around output— viewers who are interested in science, or food, or education. Or even communities of concern – people interested in global warming, or animal welfare.

This is about learning from audiences, not being dictated to by them. The public are indeed muddle-headed about many things, and the role of journalists and broadcasters is to help frame the agenda.

But audiences can be brought in throughout the production process. And the result is we help build audience engagement and make programmes that more closely reflect their interests and needs – so they watch and stay watching.

Case Study: New models of documentary production The Waiting Room

[The Waiting Room](#) is a project that began as a full-length observational documentary set in a “safety net” hospital in Oakland, California. But it has turned into a social media project, and the film itself has been put on hold.

It’s part of a trend within independent documentary making where the production process itself is the media project, with the final film becoming only one element. The recently released [9500 Liberty](#), for example, about immigration in America, began life as an ongoing series of short videos posted to YouTube. [Goa Hippy Tribe](#), an Australian documentary about the travelers who converged on Goa in the 1960’s, emerged out of a Facebook community.

In the case of *The Waiting Room*, the director, Pete Nicks, says that as he began filming the conventional “day-in-the-life” style documentary, which focused on the largely un-insured patients who attended the hospital, but decided he wanted to break down the wall between story-tellers and subjects, and allow the patients themselves to participate in the project.

The result is a blog, which features waiting room stories, conversations, and behind-the-scenes information about the project, and an interactive story booth in the waiting room itself (and eventually in other waiting rooms around the US), where patients and hospital staff can view, record and share their own stories. Material shot by the documentary crew is also played on screens in the waiting room, as are text messages from people who are



waiting. The material generated will be fed back into the documentary, but also used as “bread crumbs” to increase awareness of the project in the wider community.

Nicks argues that this will lead to a better documentary, in purely film-making terms, but also one with greater impact, because of the energy and interest the production method is generating.

3. Educate, Entertain, inform.... And inspire

In the longer-term, public-service broadcasters need to consider their success metrics with regard to knowledge programming. Is it fundamentally about how many people watched a TV programme? Or what impact we had on their lives?

On this measure, it's not how long people stay watching your programme that matters. It's what they do once they stop watching. In an online environment, that becomes easier to influence.

Whatever the format – long-form, short-form, multiplatform - programmes can be seen more explicitly as potential gateways into other content, teasers that excite and intrigue people enough to go on narrative journeys of their own. And the programme's own narrative thread will still be there as a guide rail – to be followed, or left and returned to.

However, this model will only work if:

- We offer people easy ways to access relevant content, intelligently linked to our own programmes. As suggested above, this is becoming increasingly easier and cheaper to do.
- We offer easy ways into – or back into – our programmes. Again, new technology and the use of crowd-sourcing will improve the effectiveness of tagging video content, but producers will need to understand that their programme's metadata is as important as trails and marketing.
- We accept that encouraging people to do what they like with our material is a good thing. It can help audiences discover new insights. And expand the reach of our programmes. Let them parade your expertise to their friends. Let them produce the short-form version of your exquisitely crafted documentary.

If we do this – if we embrace the cultural shifts that lie behind the new technology – then the future of factual programming could be one not of decline – but of expansion and dynamism.

Endnotes

ⁱ For a summary of the research project:

https://zm04.pobox.stanford.edu/service/home/~/Cognitive%20Control.Final.pdf?auth=co&loc=en_US&id=15216&part=2

ⁱⁱ “[Is Google Making us Stupid](#)”, The Atlantic, July; “Shallow”

ⁱⁱⁱ Survey by Retrevo of 1000 US consumers, March 2010

<http://www.retrevo.com/content/blog/2010/03/social-media-new-addiction%3F>

^{iv} Pew report on Social Media and Young Adults, published Feb 2010

<http://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>

^v TED talk, Feb 2010,

http://www.ted.com/talks/gary_flake_is_pivot_a_turning_point_for_web_exploration.html

^{vi} Clay Shirky blog <http://www.shirky.com/herecomeseverybody/2008/04/looking-for-the-mouse.html>