



AT HOME

HOME TRUTHS ▶ 07

The DPP 2017 Predictions

7 FEBRUARY 2017

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The Context

Predictions: who needs them? Around the turn of every year many companies, organisations and consultancies publish their predictions for the year ahead. These projections often make for informative or entertaining reading, but do they have real business value?

Perhaps the DPP's defining asset is its ability to bring into the room experts from right across the media supply chain – from those involved in creating content, through all those who help to shape and manage it, to those who distribute it to consumers. This 360° perspective enables us to offer a rounded view – while filtering out any distortions that may come from the self-interest of any particular part of the chain.

The DPP has recently undertaken some specific, and detailed predictions around the individual technologies of **UHD** and **VR**. These particular predictions look set to prove very accurate – almost certainly because of the 360° perspective that was brought to bear.

So there is evidence the DPP can generate good individual predictions. But can we look more broadly across the media landscape and predict what will have the greatest business impact over the next couple of years? Can we generate predictions with real business value – ones that would support business planning, and help companies to identify opportunities and risks?

That's what the DPP 2017 Predictions aim to do.

At a special DPP AT HOME event, DPP Members were brought together to consider the technical, business and social trends they believe will have a material impact – for good or ill – on media businesses over the next 12–24 months.

The creation of the DPP Predictions will now become an annual exercise. Built into that exercise will be a review of the predictions of the previous year. This will give the DPP Predictions another quality not always seen in such endeavours: accountability. And over time we will be able to identify trends across the trends – creating a picture with an historical as well as future facing perspective.



The Process

Attendees at this special predictions session were asked initially to consider any technology or trend they felt could be influential in shaping businesses in the media sector in the short to medium term. They were encouraged to consider all kinds of trends – social trends and new business models, as well as technology trends.

From this huge, and diverse range of business influencers the group then looked for key themes that connected or separated those influencers. At the heart of this discussion was always the question: will this theme make a difference to your business in the next two years? This key question acted as a reality filter that enabled the group to refine the diverse range of influencers into eight key predictions.

Once eight key predictions had been identified, a weighting exercise was performed. Not all predictions are equal: some will have a greater impact than others. So each attendee attached a scoring. They were asked to select the five predictions they felt would have the greatest business impact over the next two years, and to weight these, with a score of 5 being attached to the one with the greatest projected impact and 1 to the one with the least.

The Discussion

1 Key business influencers

The group identified no fewer than 55 influencers. For convenience these influencers can be seen as specific technology trends, business trends and social trends – although the exact way in which influencers were categorised was not crucial to the process of forming the predictions.



This collection of 55 influencers should not be regarded as definitive. What is significant is that our group of industry experts identified these influencers as the ones they felt could impact media businesses in the next two years.

As such, this group of influencers can be seen as a picture of what is currently on the minds of our attendees: history may reveal they missed something that proved very important. But that will only make the process of annual review of the DPP Predictions all the more worthwhile.

2 Making predictions: the debate

The process of generating specific predictions of business impacts for 2017-18 created lively discussion. From that debate four clear themes emerged:

Forget the trade show headlines

Anyone who has looked around a media technology trade show in recent years will have emerged with the terms UHD, VR, Cloud and IP burnt into their retinas. If these terms prove less prominent in 2017 and 2018, it will only be because they have been replaced by another group: AI, Bots and Voice UI.

But the convenience of reducing change to single technologies – while perhaps a marketing necessity – didn't resonate for DPP Members when thinking about how to plan their businesses for the future. They found it impossible to consider these headline developments without focusing on the context in which they exist, and the business chains of which they are a part.

Suck up the tech spaghetti

This reluctance to predict around specific technologies was all part of an awareness of how interconnected technology, business and social trends have now become. So, there is more content than ever; but that in part is made possible by the increase in distribution platforms, lower cost, high quality production tools and the speed to market enabled by connected and cloud based technologies. Is there any point, meanwhile, in talking about UHD without discussing the trends in the production tools required to make it, the networks to transport it, the clouds in which to store it, the platforms on which to distribute it, and the marketing campaigns of UHD display manufacturers? Similarly, can we talk about cloud without talking about edge networks, interconnections, software defined networks, software as a service, mobile, and so on.

It was observed by some attendees that business consumers now need to have a better understanding of all these different influencers and how they relate to each other. But whenever those with a high degree of technical understanding bemoan deficits in the knowledge of others you know we are still labouring up the earlier parts of a technology adoption curve. At a certain point individual technology components become invisible to the user – and that's when change has really happened.

Content is up for grabs

This much we know: there will be more content, from more sources, on more platforms, much of it of higher quality and created at greater speed. There will be lots of live. There will be some 'fake news'; some of it will feed 'confirmation bias'. Trusted providers (such as traditional broadcasters) will emphasise the provenance and credibility of what they distribute. And perhaps consumers will begin to discover this array of content by using voice-led user interfaces.

But what will all this mean for the business of media? Does a transcoder or a server care if content is 'real' or 'fake', or who made or distributed it? In the end there will simply be more fuel in the media business engine. Our predictions focused on the 'more' rather than the characteristics of particular content types or the opportunities they might offer for particular producers and distributors.

Little and large

For every example from our attendees of supposed change constraints – such as the cost of egress of content from the cloud, or the lack of appropriate connectivity, or the burden of training and the cost of security – there was an assertion that the problem had already been overcome. And that assertion often came from a new or boutique supplier.

There is no question that many industry giants are embracing connected media and thereby ensuring the next phase of change is inevitable. But it looks as if it's the minnows who are bug-fixing the future. These smaller, newer players tend to have a business model focused on the opportunity that comes from solving a specific problem. Their perception of business need is their USP. And those who understand business needs tend to succeed.

In short, any transformation predicted to occur in the next few years is likely to be the product of an ecosystem of the little and the large. Both are equally important to digital transformation.

3 The change mood music

There were five business influencers that everyone felt can currently be taken as 'givens' in the world of content creation and consumption. All of them could be seen as having significant business impact in the near to medium future. However the view was that their influence will be so all pervasive that our attendees felt these five influencers were better identified as providing the mood music against which the next two years in the media industry will play out, rather than as specific predictions.

Mobility

Audiences want to consume content on the move. Producers will also now want to make and manage their content when out of the office – and, increasingly, technical and operations personnel will want to be able to perform key tasks from mobile devices.

It is this quest for greater mobility in the professional media sector as well as in consumer markets that will see the Internet of things influence professional media, whether it be sensors in a server room monitored from an app on a tablet computer, or crowd-sourced weather forecasts.

The emergence of voice-based user interfaces (voice UIs) is a response in the consumer sector to the near-universal need to be hands-free. The same driver will see voice UI slowly begin to appear in the professional realm also.

Quality

In a world with a high volume of supply – not only of content, but also of content consumption devices and media technology tools and services – quality will keep floating to the top. 'Quality' in this context doesn't just mean picture and sound quality – although there has been a relentless trend towards better and better pictures, and now the quality of audio is also gaining renewed attention. Quality also means user experience, quality of service and relevance – in both the consumer and professional realms.

There will continue to be disruption to the status quo achieved by products, services and companies that emerge suddenly and demonstrate their ability to solve a specific problem very well.

Live

Audiences enjoy live content, and real-time engagement. Immediacy can itself be another form of quality – even if it sacrifices technical excellence. Live can often feel the same as relevance, or empathy. It can be the ultimate audience feedback loop.

Many suppliers will find themselves engaged in how to help content creators to generate compelling audience experiences, at scale, and in real-time.

Speed

The popularity of Live is just one expression of a growing obsession with speed. The world of media now moves so quickly that there is an opportunity cost to being slow. Speed to market – and indeed speed away from market – is becoming an essential business characteristic. And that in turn requires speed in all background processes.

When we talk about speed we partly mean the speed with which a new content or audience engagement offer is made. There will be increasing significance for what might be called ‘context specific content’: content that responds to the mood of a moment, where relevance and immediacy are far more defining than ‘genre’.

But speed also applies to professional operations. For every moment a new channel or platform is not up and running, opportunity – and usually a commercial opportunity – is being lost. Equally, for every moment a failing channel or platform continues to operate, money and brand value are being wasted.

And finally – as both of the examples above indicate – speed will relate to the ability to implement business change. Companies that demonstrate an ability to be nimble – whatever their size – are likely to do well in the next two years.

Security

A series of high profile attacks have left no one in any doubt that media is now a prime target for cyber criminals. Almost overnight, security has gone from any-other-business to top of the board agenda.

In the next two years every media business will spend money on improving the security of its operation and its products. But that will be accepted as the cost of doing business.

This universal need to improve and maintain security levels will see the proliferation of security standards and best practice, and greater collaboration between both suppliers and customers. Newer, Internet native, companies may have an advantage in this regard, since they are more likely to have high levels of security built into what they do.

The Predictions

The DPP AT HOME attendees identified eight developments that they believe will have significant business impacts within the next two years.

1 **New content aggregators will appear – by stealth**

Consumers will increasingly expect a single interface through which they can search content from different providers – online distributors as well as linear broadcasters. That interface will in due course become voice-based, though that may not become widespread within two years.

This new form of content aggregation will create a new, virtual and invisible form of programme search. It will replace the linear electronic programme guide (EPG). But just like the EPG there will still be a desire – and a need – to create hierarchies of content. Just as consumers for a long time found the appearance of the best-known linear channels at the top of their EPG very convenient, so something similar will get replicated in the virtual world. After all, who goes beyond page one of a Google search?

So when a consumer simply asks for ‘news’, or ‘science programmes’, they won’t want to be offered random news or science from anywhere; and neither will new, intelligent content aggregators want to offer content randomly. But won’t your intelligent content aggregator simply learn what you like? It will; but it needs to have access to what you like in the first place.

‘Real estate’ in this virtual world of discovery will therefore be every bit as valuable as in the linear world. Business-to-business deals done in the background over the next few years will determine which aggregators have what content.

In other words, effective and popular new content aggregators may begin soon to emerge; but it will be the considerable – and commercially sensitive – business deals that have to happen first that will really characterise the next two years.

2 **Getting cloud ready will be a full time job**

Connected, and cloud-led, tools and services will soon become the backbone of the media industry. But the next two years will see more growing pains. It will be the efforts of almost every media business to work out how best to use or sell such tools and services that will dominate their activity in the next two years. There will be huge – but ever closing – gulfs of understanding between suppliers and their business consumers. Initially we will see technologist customers gain greater comfort with the art of the possible. There will be more productive dialogue between supplier and customer. Clearer and more appropriately presented cost models will emerge. Businesses will start to be reshaped around the potential that connected enablers can bring.

And in around two years those service and cost models will start to be better tailored to non-technologists too.

In short, the potential of cloud and its associated business influencers – multi-cloud, interconnection, edge networks, software defined networks, and so on – will be accepted this year. The debate about cloud will be over. After two years such potential will become widely used. It will be the new normal. And that will happen because the technology will have become sufficiently commoditised that customers no longer require expert knowledge to make use of it.

3 Business will be re-formed

The growing maturity of those connected enablers will bring significant changes in established models for how to do business. Large organisations will increasingly use the cloud as a way to create virtual hubs in other territories, without the expense of a physical foreign office. Even at home, those large companies will seek to reduce their office footprint, taking advantage of the greater ease of remote and mobile working.

Smaller organisations will question whether to have an office at all, making more use of shared work spaces and hubs.

The need to drive out over provisioning and under utilisation, excessive headcount and overheads, and to respond to the need for speed, will make many companies more responsive to service-based models. Pay as you go and subscription-based tools and services will become the norm in this period – although learning how to manage such services will also become a major new challenge for business managers.

4 Where there are people, there'll be automation

It is easy to become excited about the potential for advanced applications of artificial intelligence – such as the ability to map complex three-dimensional environments or to create robots with emotional intelligence.

But the reality of the next two years is that the major advances in the application of automation and machine intelligence will correlate closely with business functions that currently are people-heavy, subject to error and lacking business data.

A prime example is scheduling systems, which operate within set parameters, and which, if fully automated, have the potential to provide key business data. Ingest and Quality Control (QC) are two other areas where it was anticipated we will see increasing automation.

Headcount remains the highest fixed cost in most businesses, and the introduction of automation will be focused in those areas where people-based activity is high, but repetitive. Automation and machine intelligence will enable us to do the same better, with better understanding, before it truly transforms us.

5 More content will change us all

One of the greatest business opportunities of the next two years will simply be the fact that more content of more different types will be created than ever before.

Just as post production facilities are increasingly seeing work coming from sources other than traditional broadcast, so all parts of the wider supply chain will benefit from the scale and range of this wider production activity.

These new markets will change both customer and supplier. Suppliers will adapt to the business needs of these new content creators – notably the need for high quality, data rich, low cost, pay as you go tools and services. And – as they move into the mainstream – the new content creators will increasingly seek the scale, reliability and resilience suppliers with experience of broadcast can provide.

And of course, while more content, of ever greater quality, will present opportunities for producers and suppliers, it will in time revolutionise the landscape of broadcasters and distributors.

6 Versioning will become an opportunity – not a cost

In recent years the proliferation of versions of content – both for editorial and technical reasons has become a source of great complexity and cost (while accepting that one company's expenditure is another's income).

The move towards 'componentised' audio-visual masters will change this. IMF (Interoperable Mastering Format) for very high-end production is now also being developed in a broadcast version for general content use. This will enable broadcasters and distributors to create a single master that contains all the possible components for any subsequent versions. Creating those versions will be much like clicking on a take-away food app – with the subsequent delivery being an automated process.

Suddenly the ability to deliver multiple forms of High Dynamic Range, or different aspect ratios, or different language versions, becomes an opportunity rather than a cost.

This, of course, will further add to the proliferation of content. It will also set the scene for longer-term developments such as object-based audio, and the componentised outputs of the IP-based studio.

7 Immersive will be submerged

Immersive technologies – Virtual Reality, Augmented and Mixed Reality and 360° Video – will become established as available media formats. But the next two years will be more characterised by the technical and commercial work required to commoditise those formats than huge consumer take-up.

The areas in which immersive technology will have greatest impact will be in non-broadcast content production – particularly in gaming, training and branded content. Broadcasters will continue to explore 360° video in news, current affairs and sport, where it is an affordable addition to their services that doesn't disrupt the broadcast chain. But we won't see immersive technology impact on other areas of TV content in the next two years.

8 Connectivity will continue to constrain

Five years ago the continued existence of videotape constrained the arrival of fully digital working. Today poor and expensive connectivity – in the UK at least – provides a comparable constraint.

Most larger companies now have the right scale and type of connectivity to move their businesses online. But many small and medium sized companies still do not. Pay as you go models for high-speed connectivity are emerging, but they are not yet universal.

In part the challenge is cultural: in particular a lack of preparedness of small production companies to remodel their businesses for the internet age. But the challenge is sometimes physical: high speed connectivity can't be made available at an affordable price.

In two years time we will finally be on the verge of being able to describe connected working as a universally available option for our industry. At this point there will be synergy, rather than conflict between this eighth prediction and our second one, on page 9.

The Predictions: A Weighted View

Once the predictions had been formulated the attendees were invited to score them – as described in the Process section on page 3.

Each person was invited to select the five predictions they felt would prove most significant. They were then asked to put their five in rank order – attributed 5 points to the one they felt would have the greatest business impact, and 1 to the one with the least.

The table below shows an aggregated view of these impact scores.

PREDICTION	IMPACT	1	2	3	4	5	TOTAL
1 New content aggregators will appear – by stealth		●	●	●	●	●	67
2 Getting cloud ready will be a full time job		●	●	●	●	●	83
3 Business will be re-formed		●	●	●	●	●	60
4 Where there are people, there'll be automation		●	●	●	●	●	50
5 More content will change us all		●	●	●	●	●	28
6 Versioning will become an opportunity – not a cost		●	●	●	●	●	38
7 Immersive will be submerged		●	●	●	●	●	18
8 Connectivity will continue to constrain		●	●	●	●	●	40



So what does this weighted view tell us?

What is immediately striking is not only that 'getting cloud ready' emerged as the activity that will have the greatest near term business impact overall, but also that so many attendees assessed it as the prediction carrying the single greatest impact. The other areas with a relatively large number of high impact scores were 'business re-formed' and 'automation' – both of which are natural accompaniments to getting cloud ready.

The constraining effect of issues around connectivity emerges quite strongly as a brake on such cloud readiness. These votes of caution give the predictions a very real world feel: big changes are happening, but let's not pretend they are doing so without hindrance.

Meanwhile the scoring attached to the reshaping of content offers around new content aggregators perfectly reflects the view put forward that this will be largely a background, business to business activity over the next two years. It will be a very significant development – but its real impacts are yet to come.

And finally, the continuing development of immersive technology is placed as the prediction with the least business impact, reflecting well an extraordinary last twelve months in which something close to hysteria emerged around immersive – and almost as quickly subsided.

The DPP 2017 Predictions

In summary, the DPP predicts the following eight themes will have material impact on media businesses in the next two years – ranked in order, with the first having the greatest impact, and the eighth the least. All eight will play out against the background of five overarching themes: **Mobility, Quality, Live, Speed** and **Security**.

	TOTAL	PERCENT
Getting cloud ready will be a full time job	83	21.6%
New content aggregators will appear – by stealth	67	17.5%
Business will be re-formed	60	15.6%
Where there are people, there'll be automation	50	13.0%
Connectivity will continue to constrain	40	10.4%
Versioning will become an opportunity – not a cost	38	9.9%
More content will change us all	28	7.3%
Immersive will be submerged	18	4.7%



The Conclusion

These 2017 Predictions, formed by DPP Members, are the very opposite of hype. The invitation to consider all potential influencers through the lens of real business impact over the next two years has brought a picture of an industry in active transition.

These predictions leave no doubt where media is heading: connected and cloud led, with a responsiveness made possible by data led intelligence and a determination to reduce time to market.

They are predictions that show we are not quite there yet – but that our tardiness is no longer down to scepticism or resistance, just to the time it takes for technology to evolve and business models to adapt. We have passed the early adopter phase, but are not yet into general adoption. The next two years will be the years of cloud acceptance.

Perhaps most revealing is that no single part of the supply chain is leading the change. Above all else, the DPP is predicting that a diverse, interconnected ecosystem of start-ups, established players and global giants, will be good for business.

The DPP AT HOME 2017 Predictions session was facilitated by Mark Harrison from the DPP and Alison Hunter from BBC Blue Room. This report was authored by Mark Harrison, and made possible by the DPP AT HOME attendees. Please note that although this report reflects discussion at the session, the views expressed in the report are not necessarily held by all.

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ABOUT DPP AT HOME

DPP AT HOME is an invitation-only DPP Members' event that brings together a relatively small number of people for three hours to focus their knowledge and experience on addressing a particular topic. The event takes place in an informal setting. It abandons the trappings of corporate life – there are no suits or PowerPoint – to create a place to indulge in the pleasure of being with clever colleagues from across the industry. Although relaxed, each event is purposeful – resulting in its own position paper: HOME TRUTHS.

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