IPTV/VoD **The great content adventure**

By Alexander Cameron, Managing Director, Digital TX Ltd.

"*The problem is that they want the world, but they don't want to pay for it*", said the BBC executive sitting opposite me sipping on his cappuccino. "*They are all knocking on our door wanting all our content for free, and it's so difficult when they don't understand the costs involved and how this industry operates*". The reason I started Digital TX Ltd was due to hearing this in conversation more times than I care to remember. Time and time again I've heard movie studios, broadcasters, TV production companies, record labels and games publishers express to me their deep concern that the enthusiasm shown by ISPs to offer premium content is not tempered by any consideration or understanding for the processes, risks and costs involved in the acquisition of rights to their intellectual property.

When you have the same conversation with ISPs, the talk is of a highly competitive market where loss leading products are the norm and margins are forever falling. The landscape never seems to stabilise for a minute, with both regulatory and market forces changing faster than the rate of the technology that is being deployed There is frustration and bewilderment at how time-consuming licensing negotiations are with content owners, indignation at apparent arrogance and pre-paid sales guarantees, and even the most innocent of confusion as to why an industry that could seemingly prosper so effectively from technology seems to regard it with such fear and contempt.

Both industries are stepping out into a brave new world and taking commercial risks based on excitement over an as yet unproven technology. ISPs want to deploy 'triple play' services that include IPTV entertainment, and content owners are realising an entire new audience has emerged that they can licence the rights to their intellectual property to. Both also suffer the nagging issue of chronic piracy, but in differing ways. Ironically, they are the answers to each others' problems. My company exists to help them understand each other and to help them build a vision of a very exciting future ahead.

The old cliché is that content is king. Now the structural issues of IPTV are reaching an initial degree of quasi-maturity (in the sense that working deployments are in place around the world and operating effectively), and both management and engineering teams have solved what are the intellectual riddles of putting the equipment into the field, the focus is now on getting hold of the right material that will attract and keep viewers. For those that have been here before, that is an absurd way of going about things as that content takes a very long time to acquire and is the lifeblood of an entertainment business.

The business of agreeing rights over the distribution of content is almost always tedious and long-winded. If you've ever been privy to negotiations for channel carriage, record deal signings or sub-licensing, you'll know that Its about as unsexy as it gets – lawyers talking to other lawyers, defining every last detail of allowances, sub-clauses and limitations, for every single time the content is re-licensed to someone new. Forget cigars, champagne and dancing girls – this is solid paperwork and a crash course in pulling teeth. And it is a big boy's game – a billion-dollar industry that everyone wants a piece of, which means you better have some serious chips to get a seat at the table.

The international movie industry is worth $44 billion and dominated by the Hollywood studios, almost all of which are based in Los Angeles and known as the "Big 10" – 20th Century Fox, Paramount (Viacom, MTV, Dreamworks), Sony Pictures (Columbia Pictures, Tristar, MGM), NBC (Universal), Warner Bros, New Line Cinema (HBO, Fine Line) and Buena Vista/Disney (Hollywood Pictures, Miramax, Touchstone). There are plenty more (for example, LucasFilm, Pathe, Ljons Gate, Momentum and of course those responsible for adult titles), but none come close to the size of these established brands. Most of these companies represented in London's Golden Square, near Piccadilly, and spend over $2 billion promoting their warez.

The sister arm to these studios are the "Big 4" major record labels of the music industry who preside over around 70% of their own $40 billion dollar market – Universal Music (Island, Motown, Polygram), Sony BMG (Columbia, Epic), EMI (Odeon, Virgin) and Warner Music (Elektra, Atlantic). Independent labels abound, as they have always done since the advent of phonographic media. They are mostly based in West London, particularly Hammersmith and Chiswick, and are renowned for their insularity.

The TV production industry is a fluid one, consisting of over 500 broadcasters in the UK (TV and radio) and over 3000 TV production companies. In London, most are clustered within a 1000ft radius of BT's Great Portland St tower (i.e. Soho, Fitzrovia), to take advantage of their distance-based charging of SDI circuits (uncompressed video which needs 270Mbit/s). Premium channels that have powerful audience-pulling ability tend to charge operators for carriage on digital platforms and maintain a direct relationship with the viewer (e.g. MTV, Sky One etc), whereas smaller brands have to pay for their channel to be featured. Digitisation has brought about a growing trend of moving further from the centre of London to cheaper pastures as multi-channel viewing begins to affect income the income of their customers. The gorillas in this marketplace are the likes of BBC Worldwide, RDF Media, Fremantle, Endemol, ITN, Channel 4, Tiger Aspect, BSkyB, UKTV/Flextech, SMG, Celador and more.

Last, but certainly not least, is the video game industry, which is a comparatively spring chicken in comparison to the other established media groups and now closely aligned with the movie studios, with a value at just over $30 billion. One name dominates above them all – Electronic Arts (EA). Others of note include Activision, Microsoft, Nintendo, Sony, Ubisoft, Take Two, Vivendi, Atari and Codemasters. Rewards are lucrative, and they have to be – some estimates claim that 95% of all games never make a profit for their manufacturers.

These companies are powerful, and because of the high-profile nature of their respective businesses, they are inundated with requests every day and can afford to be choosy about who they work with. Effective deal-making is dependent on long-term relationships that have taken many years to develop, with networking almost impossible as those with contacts guard them jealously as their most valuable trade secrets. Like vulture capitalists, it is often more costly to do smaller deals than the larger ones – but when we say smaller here, it's important to stress the context: small to these guys is six figures. In exactly the same way as property developers control retail, content owners control entertainment services.

Their fundamental goal is to maximise the profitability of their intellectual property, and there is no group of industries who are more aware of, and better are exploiting, the value of it. The way this is done is through the use of release "windows", which are basically periods of time in which their media are allowed to be distributed for a specific purpose (e.g. DVD rental, jingles etc). They break the world down into continents, countries, regions and then break it down further into "windows", split into commercial and residential release. This allows them to create a massive list of opportunities for selling what they produce, and has worked beautifully for many years. Until now.

The internet and the digital media that comes along with it have changed the collective worlds for rightsholders – whereas analogue copies of their VHS and cassette tapes would degrade through copying and good old fashioned wear n' tear, the latest era of technical wizardry preserves the integrity of media perfectly and makes it easy to reproduce unauthorised copies of copyrighted work. Not only that, but it is a highly disruptive and invasive protocol that eats into their core businesses. The public buy physical media – DVDs, CDs and video games, all in their packaging. Together they are worth many, many times more than their newer cousins such as Pay TV or Video On-Demand - media on-demand is a competing product and potentially takes away a more profitable sale. Those who control the licensing to works that are so lucrative do not want to be cut out of the distribution chain, and they are fighting like any other business would, to protect their primary interests. And that is what most of the P2P argument comes down to – who controls the distribution.

The very first thing anyone looking to acquire content for an IPTV needs to do is familiarise themselves with the business drivers of those supplying it. First and foremost, the entire distribution process must be secured from end to end, physically (locks and staff background checks), electronically (digital rights management, DRM), in transmission with conditional access encryption (CA), and through analogue copy protection (which generally works by exploiting the automatic gain control feature of VCRs by adding pulses to the vertical blanking sync signal). Secondly, the viewing audience must be large enough to ensure sufficient exposure for the material – when you consider most TV network audiences in the US are at the very least in the 10s of millions it goes some way to explaining their hesitance to work with young start-ups with fewer than 10,000 subscribers.

Thirdly, permitting 3rd parties to distribute content is a huge commercial risk, so almost all will demand pre-paid sales up front, typically between £500k – £1 million per studio/label in most cases. Fourth, quality must be preserved at all points of the distribution chain, which must be contractually guaranteed with service level agreements (SLAs) – that means the highest quality imagery (produced by trusted 3rd parties) and sonic perfection. Rights are negotiated for a specific region, purpose and technical platform – if it's not in the contract, you don't have permission for it. And possibly one of the most important points to understand, the rightsholder will almost always want to own the relationship with the end-user, for every new contract, distribution agreement or alteration.

The old economics price most ISPs and telcos out of the content world – BSkyB have completed monopolised the Pay TV movie (PPV) window in the UK with their Box Office service (by block-buying movies for 6 months at a time, hence the rotation schedule on Sky Movie channels), and Murdoch's enormous power in the world's media markets is a force that very few are willing to compete with. Many argue the "window" release system is now reaching the limits of its flexibility and needs to be changed to accommodate the increasing power of consumer choice through media that is offered on-demand. The length of time spent negotiating licensing and sub-licensing agreements is simply not conducive for the pace of technological change – it is now actively hindering innovation.

The question for new market entrants is viability, and the message to content owners is clear enough.- the way they do business right now is just not commercially viable to new customers. The future of TV is not single subscriber bases of millions, but in an aggregated consumer population made up from many differently-sized niche IPTV audiences. Operators wanting to deploy triple play services are faced with massive barriers to market entry, yet still are compelled to press ahead with very risky plans simply as their competitors are doing the same. Only the top 4 ISPs (BT, Wanadoo, Tiscali and AOL) have the pockets deep enough, and a subscriber base sufficient enough that will enable them to offer premium content. The will and enthusiasm from the top 20 ISPs is there, but snobbery and financial implications (such as cash flow issues generated by pre-paid sales guarantees) make such ventures an unsustainable risk. There is an answer to this, and it's in the opposite of what the current TV market is - niche content, democratisation and innovation. More on that later.

Their current pre-IPTV compromise is to market video-download services on the internet. This is not true "IPTV" in the sense that although it uses internet technologies, it goes across the public internet and does not replace part of, or a whole TV broadcast service such as Sky or Freeview. ISPs know how to innovate, and they're incredibly hungry for new products and services to offer their attention-challenged customers. Indeed, some of the more modestly sized operators investing in small, localised LLU deployments are involved in some fascinating TV projects that are perfect for risk-minimised experiments by content owners.

Everyone wants in, and wants to beat the big guys. They want to cash in on the new iTunes phenomenon. Illegal downloading soars with the growth of broadband connections that enable huge files to arrive in no time at all. The unspoken truth is that ISPs do profit from piracy – free music, movies (read: porn), games and software are a massive incentive for new people signing up for broadband. It's not in their interests to tackle it, and as long as it's impossible for them to offer entertainment services through the cooperation of rightsholders, the problem will simply get worse.

Offering a DRM-riddled video store is an easy evolutionary step from legal music download services and easy to "white label" – but the issue is not what you can sell to people to play on their computers, it's the structure of how they are able to transport that material around their home on different devices that proves the key factor. Big names like Microsoft, Intel, Sky and BT are betting on Windows Media Center and decentralised networking (e.g. Kontiki's P2P distribution system) as the next paradigm for set-top box-powered TV services and the so-called "home ecosystem". It's not going to work any time soon, and tell anyone who argues differently to run a cold shower, take a breath and talk to ordinary Joe Public in his local pub.

People don't interact with TVs like they do with a PC, but crucially, it just costs too much. Nobody in their right mind wants to be paying another £500-1000 just to watch their photos on their TV screen. Consumer gadgets have already burn a hole in most people's credit cards to compel them to put a PC under their TV. Sky and NTL amortise the cost of their set-top boxes against the length of a customer's subscription, and Freeview boxes cost hardly anything in Argos or Dixons. Perhaps the affluent executives that devise these new ideas and their social circle might happily indulge themselves, but for the rest of the mass market its one expense too far when they've already bought a widescreen TV, DVD recorder, Pay TV subscription, broadband connection and computer(s). Give me a very cheap, simple pay-as-you-go Linux box with network PVR that works with what I have already, and I might just think about it. But IPTV is so much more than just that – that's only one idea amongst an ocean of possibilities.

The feeding frenzy that is the newborn IPTV industry has inevitably thrown up a wild chaos that is the hallmark of new technological eras. Once of the most interesting dynamics is that of the so-called content aggregator – trusted third parties that manage the rights for many diverse content archives on behalf of their owners. As a broker or agent, they provide a single point of contact that can be considerably more efficient for operators to deal with than each rightsholder and give wider access to more markets. Equally, content owners are finding it easier to grant sub-licensing contracts to one central point of contact than dealing with several hundred operators worldwide. Their reward for being the convenient middleman is a percentage of the typical revenue-share arrangement that constitutes the guts of the main licensing deal – a usual arrangement being 50% to the studio, 25% to the aggregator and 25% to the operator. In other circumstances that deal would be 60/40 in the content owner's favour.

Even technical vendors are now seeing the advantage of adding value to their core product portfolios by entering into strategic partnerships with rightsholders (for example, the recent buyout of the On-Demand Group by VoD server vendor SeaChange), or bundling in a few hours of high-definition back-catalogue material with every purchase.

The whirlwind excitement of new age always ends up with casualties, and it's likely that this particular season will see a lot of blood spilt for every innovative step forward. Aggregator start-ups are ten a penny and internet-derived content is being made available faster than its owners can chomp their teeth down on the proverbial bit. When all comers think they can get in the game, the resulting confusion hurts everyone. Hundred of ISPs and telcos are ready and willing to open up conversations with equally large numbers of rightsholders across the world. Even the aggregators are becoming so numerous that they themselves need to be aggregated. Gratuitous advertorial aside, my company, Digital TX, is aiming to solve that very problem with a globalised 'marketplace' platform where ISPs and content owners can meet to trade access rights in a relatively automated way. New dynamics require new thinking, and the winners in IPTV will be those who can leverage the widest breadth of resources in their armoury.

If ISPs benefit from a customer's desire to download illegally, we are coming to an interesting junction in the road – if they want to offer premium content from the same rightsholders whose works are being distributed on P2P systems, will they then be liable for the illegal variety that flows so easily over their networks? Packet-sniffing is a basic network function, with identification and isolation of problem traffic relatively easy with the tools available on the market today.

Indeed, a worrying development in the US is the plans of telcos to deploy heavier-duty traffic-shaping across their networks. They intend to charge content owners for prioritising the transport of their material, and build traffic quality ‘tiers’ that are priced according to the attention given to maintaining the integrity of transit.

IPTV allows us to use internet technologies to transmit multimedia using TCP/UDP over IP networks, meaning that an unprecedented level of inter-operation between different IP-based systems is possible (such as email, instant messaging, SMS, MMS etc). As with Sky’s WapTV and cable TV systems, IPTV set-top boxes are typically browser-based and menus, screens and interfaces on a TV are written in HTML. What that means in practice is that the content for IPTV is hosted in the same way as a website, and anyone with rudimentary skills in putting together web pages can produce their own content that can be displayed on theirs and others’ TV screens. What liberates and democratises the TV set may also just be our undoing.

The question for operators and regulators is how to manage the balance between opening an IPTV platform so anyone can generate their own content and innovate new TV-based interactive services, and needing to both actively control quality (read: filter crap), and provide safety from unsuitable, damaging or indecent material. The combination of age ratings, moderation/approval and an access control list (ACL), as used by the cable companies, is not enough as it is too restrictive and very difficult to maintain. What is needed is the open structure of the internet and the relatively disciplined regulation policy advocated in television. Censorship may be a convenient in China, but it is not appropriate in the 21st century UK. Each service provider will have their own opinions and policies, but ultimately EU law will need to stipulate the obligations on 3rd party application providers (who also use built-in micropayment systems in the same way BT offers premium rate telephony for) and IPTV operators to police content displayed by set-top boxes accessed through their networks.

IP-based systems also change the world in the way that they make geography utterly irrelevant. This causes one of the largest headaches for content owners, as for decades their businesses have been based on allocating rights by continent, country, region, platform and window. IP networks stretch across the planet and as the backbone of the internet; they offer a conduit for seamlessly distributing digital content the likes of which generations past only saw in simplistic telephony. We can send video files anywhere in very little time at all, and they will never lose quality. We can move them around, change them, copy them and store them. If you’re a rightsholder, those last few sentences will probably mean that by now you’re in a cold sweat and foaming at the mouth. It’s nothing else than an intellectual property owner’s worst nightmare. The inevitable is slowly hitting home despite the wave having crashed long ago – the new business model in the absence of physical media (and the associated production cost) and where the material can be transported anywhere in seconds, is not to sell the product itself, but the rights to how, where, when it is consumed.

That's not to say it's impossible to take some of the old world with us. Cunning technologists are increasingly using a system called, amongst other things, IP "geo-coding". Based on the issues that introduced the world to conditional access smartcard systems, the theory is that through querying the RIPE database and collecting raw data about address allocation, it is possible to identify blocks of IP addresses that match to individual countries. Content can then be released to only those who have a public IP address registered in the particular country that rights have been allocated. The BBC used this to great effect when restricting access to multicast Olympics coverage to UK viewers, and recently to their new iMP media player service. Naturally, it's possible to generate false IP addresses, use proxy servers and other tricks, so the technique has its limits.

A more silent and permanent revolution that has been overshadowed by headline technologies like HD, H.264 and IPTV, is the process of digitisation in the media world. Broadcasters want entirely digital workflow from beginning to end, as the savings are huge when compared to the baggage of physical media. The implications for the industry are enormous. One of my greatest joys when working with ISPs is seeing the wonderfully surprised look on people's faces when I tell them that most of the TV content they want to get their paws on is still only keep on VHS or Digibeta, and archiving isn't nearly as far along as it should be. Household brands like the BBC, ITN, MTV, Universal Music and co are still working out exactly how they go about putting everything they have into digital storage and not only make the investment back, but actually whether they can make a profit from doing it.

What that means to an ISP is that the content they want (or is within their budget) is that you don't get a hard drive delivered by CityLink the next day, but that the content is most likely going to need to be "ingested" if you want to offer it, i.e. pulled out of a dusty cupboard, played into an industrial encoder, stored on a storage area network (SAN) at the highest quality so it can be transcribed into multiple platform formats later (e.g. for SD/HD broadcast, mobiles, computers etc), encrypted with a CA algorithm, put through manual QA and catalogued. The policy so far has to follow the 80/20 Pareto principle that seems to govern everything in new media (especially on-demand distribution) – 80% of the viewers want to watch only the most popular 20% of your content. The business case for digitising the large bulk of produced work rests on the model in use to derive the necessary revenue from it. Ingesting content is very, very time-consuming, expensive and labour-intensive. When you add the need to screen personnel to prevent criminal piracy and the shelf life of digital storage media costs begin to spiral and rightsholders are faced with a genuinely difficult business problem that they thought was initially much smaller than their need to monetize their back-catalogue.

Herein lies a fascinating and complex new territory for content owners. What is the most profitable way to offer content from huge digital archives? Consumers will not pay for material in the way they do for pay-per-view movies, and bundling optional flat rate access fees into monthly triple play subscriptions adds pricing sensitivity that could risk making the business model unviable. Many (including Bill Gates) believe the answer can be found in so-called “Long Tail” economics, a term coined in a 2004 edition of Wired magazine to describe the appearance of sales statistics from internet retailers. The theory says that products that are in low demand or have low sales volume can collectively make up a market share that rivals or exceeds the relatively few current bestsellers and blockbusters, if the store or distribution channel is large enough. More and more content owners are coming to see the statistical distribution that is the signature of the Long Tail theory, such as online DVD rental and music download services. Surveys are consistently showing that niche or back-catalogue content is in higher demand than premium content.

This issue takes on greater significance when the current debate between TV production houses and broadcasters is taken into account. Generally Hollywood tends to impose its strict own conditions and restrictions on the way its content is stored and distributed, but the unique relationship that production houses share with their customers complicates how arrangements are made for IPTV. Tradition dictates those broadcasters commission independent production companies to produce programmes for them, and subsequently acquire the primary rights for a single broadcast and a repeats showing (the most profitable part for producers). The secondary rights are left with the production houses to sell overseas and in new markets. More flexibility is needed for making content available on-demand from a digital archive, for example for a “7 day catch up” service, as it’s not clear who exactly controls how it is distributed.

Ofcom’s answer to this scenario is 2 rights windows – the first for rights acquired by the public service broadcasters (“PSB”, BBC, ITV, Channel 4 & RTL/Five), across any distribution platform, across any wholly-owned channel, for a specified duration, for free-to-view UK distribution. A 2nd holdback window will then follow in which the broadcaster may limit the exploitation of rights by the producer. This restriction can be shorter than the current five-year period and the broadcaster can retain an option to extend the duration on further payment. At the end of the holdback period, the ability to control exploitation of the programme would revert back to the producer. It is worth pointing out that the BBC is in a unique entity in this situation, in that it is required by royal charter to make its own material available in to the widest audience of UK viewers possible and commission a minimum of 25% of its output from external production houses. One of the most common sources of confusion to the question of whether BBC content is free is the difficulty in understanding the difference between true BBC PSB content and the rights to commercial content controlled by its business arm, BBC Worldwide (UKTV, Flextech etc).

With the massive reduction in storage costs provided by digital technology, there is a school of thought that we may just be heading towards commoditisation of non-premium content. Producers won't hand over the crown jewels for free (especially jewels they have spent hundreds of millions on making), but the redundant back catalogue may just come at a pretty good price as it could offer the ability to resurrect the goose that makes those lovely golden eggs. How do you charge for access to hundreds of thousands of new clips, short films and individual episodes? Is it possible to use a staggered, average-yield model as trumpeted so successfully by Stelios Haji-Ioannou of easyGroup fame? How do you offer 3rd parties access to them to include in their own applications? The most viable options would seem to be an optional blanket/fat-rate monthly access subscription, or individual "nano-payment".

The feedback from internet downloads is that access has to be fast (P2P, Grid and/or BitTorrent) and very, very cheap – consumers have got used to good quality pirated material available for absolutely nothing, entirely free. Disney used this knowledge to great effect when it released "Lost" as a download, because it was the most popular pirated show at the time. In that sense, the movie industry can consider itself lucky – the music industry failed miserably and has shown them what not to do, and piracy has eliminated the usual need for a pioneer – the one that inevitably gets scalped whilst the rest lie in waiting for it. Illegal downloading has shown them the demand (hence removed the risk of uncertainty over whether people will consume media in that way), and saved them the cost of educating the market.

The new wave of IPTV and Video On-Demand ("VoD") services is a disruptive equaliser, and one that now has enough momentum to resist the overtones of the incumbents' vested interests. The 600 billion page internet with its killer applications that have come to dominate our lives was originally built on the unbelievably simple HTTP transmission protocol. IP services naturally talk to other IP services, and therein lies the power of IPTV – the fact that using IP (i.e. TCP/UDP) to transport digital video allows us an unprecedented level of integration and inter-operation with other services (e.g. email, VoIP, SMS/MMS etc) that evolves the TV entertainment model to be one of implicit viewer involvement. The fundamental shift is that we can now identify exactly what content is being played at any given moment in time, who is watching it, and how they are consuming it.

Our mission at Digital TX is to open up IPTV as a simple, intelligent and open platform that anyone can innovate around – just like the internet, but with some tweaks. The costs of producing an distributing a multicast IPTV stream in MPEG-4 on a PC are negligible (aside from a camera and/or broadband connection, you can do it in less than 30 seconds with the free VLC player for example) – small enough that anyone in the whole world can produce and distribute their own live and on-demand TV channel(s) with a broadband connection and that geographic boundaries no longer apply.

Viewers have access to an unlimited amount of content from every culture, country or social group that has access to the internet or interconnecting IP network (3rd party data centres, local council CCTV etc) – channels, movies, albums, clips, games and more. User-generated content is in, broadcaster exclusivity is out. Gone is the concept of the “walled garden” – a term used to describe a private set of exclusive private information services provided for customers for display on a device such as a cable TV set-top box or 3G mobile phone.

Any element of the set-top box’s ecosystem can be made available to developers, allowing different start-up videos, screensavers, incoming & outgoing call dial-tones, EPG menu “skins” and many others. Anything on the internet or the local area network the device is connected to is fair game and easily portable to the IPTV environment (assuming of course that it is suitable for TV as well as a computer) – flash movies, viral film clips, software applications and all totally available in parallel to the main TV and media on-demand platform that does not exist on the internet.

A world of possibility comes with its own burdens juxtaposed, and the one staring us in the face is the need for a way to have a really intuitive and easy way to find our way around all this potential chaos. This is the Achilles heel of operators that rely on such an open platform to counter-weight the buying power of the bigger guys, and one they will exploit as a problem that they solve by offering less, premium material. PCs have bookmarks, Google and address bars, mobile phones have short codes, Teletext has pages numbers, but IPTV has a limited screen area real estate size which most couch potatoes get very angry about if it is obstructed or overloaded, and needs a way to manage all the available content that a 3 year old could use with their eyes shut. The bottom line is the user interface (UI) needs to be better than good – it needs to look and feel like it was sent from heaven itself.

Many industry pundits believe that ISPs offering IPTV services will largely be competing for, and consequently cannibalising, the same markets and that the battle will eventually be decided by those with the most powerful brands. In a brand-driven market like the UK, such words ring true. Cinemas like Odeon and UGC, who offered no competition to BSkyB’s scheduled-broadcast service, Sky Box-Office, can easily and inexpensively innovate their own pay-per view living room “private cinema” experiences if they secure an extension to their existing window rights. Their brands are perfect and the platform exactly what they need to fight back against the competition from video on-demand.

One of the most interesting (albeit predictable) IPTV concepts in development now is descended from Blockbuster's "channel" on Kingston Communication's KIT service, based in Hull. Online DVD rental companies like ScreenSelect, LoveFilm, DVD2Home and DVDs365 have seen the cable "FilmFlex" and "FrontRow" services and already have strategies in place to gradually evolve their current business model for video on-demand subscriptions. The clearest way they have found to do that is to build a branded video on-demand "channel" that is accessible from the EPG or system menus on the IPTV service (the same type of screen as featured on Sky Digitals interface). Such a "channel" can be created once and made available on multiple ISP operator platforms.

The concept is extraordinarily appealing when combined with Freeview, given Sky's scary churn rate and their customers' dissatisfaction with their movie channels. BT have also seen the possibility and added it as a cornerstone of their "Project Nevis", along with network PVR functionality (which is basically just video on-demand, but from a list of programs you specify that you would have otherwise recorded on your Sky Plus PVR). A sobering perspective is contrary evidence gathered from Video Networks' real-world experience they have found that including their on-demand "channels" into the live TV line-up has significantly increased their popularity – consumers tend to associate on-demand content with payment, making it the last resort when nothing else is on.

Aside from all the talk of rights and intellectual property, IPTV technology is breaking new ground in the types of services available through a TV or computer, and the way we consume and buy media. If you're a nerd (as most lovable ISP types are), it's easily one of the most innovative periods in multimedia for some time. Companies like Agile TV, who offer voice navigation, and the much hyped G-Cluster are offering new and fun ways to enjoy TV. The latter is a long-time favourite in most conference-attendees' diaries – their set-top software allows operators to offer immersive pay-per-play 3D video games over broadband networks, without the need for a Playstation, Xbox or GameCube to be attached (the video output from the graphics card is sent over the network like normal TV). We're talking Halo 2 rather than Sky's Digital's Pacman or Tetris.

These aren't just toys or fads – despite the mandatory adoption curve, they offer new ways to make money, new platforms to develop content for and provide added-value that helps newer market entrants to differentiate their services from incumbents. When Sky launch their new HD service this year, you can guarantee the others won't be far behind once they have let the market grow so they can migrate the mass market over to their ADSL2+ platforms.

The largest IT conglomerates who offer products and services for IPTV will bore anyone who has the inclination to listen about the thinking of engineers that has been through the grinding wheels of their market department. They call it the larger picture – the home ‘eco-system’. Don’t get me wrong, future-proofing and seeing the whole chess board is important, but with the legacy infrastructure already littering houses all over the country its going to be a while until even the first building blocks are in place. Part of the motivation for taking the Microsoft shilling (other than that they are so hungry to undermine Siemens and grab market penetration they will pay for your entire project), is the breadth of devices that support their DRM technology – PCs, Pocket PCs, Xboxes and soon to be, set-top boxes. There will come a time where content will need to be produced multiple devices and the rights explicitly controlled to the very last second, but that time is not now when the industry just needs to catch its breath.

Its time for a new deal – a fresh partnership between ISPs and content owners to help each other usher in a new era of content consumption and technological innovation. Both share the massive excitement over IPTV and the risks involved in deploying it, and each can ease the other’s concerns. The rewards are there for the taking – we absolutely can break the back of piracy, but we need to cooperate to do it. ISPs can minimise it from their networks, and content owners can control the distribution of authentic material. We need a working group that can collaborate with regulatory agencies to smooth over potential problems before they arise and define a safer and more compelling future. What is needed is an agreed 18-month “honeymoon” period given to each by the other – the granting of extremely appealing and flexible conditions to each other’s assets and infrastructure as good will. A gesture of faith in relationships that will develop in the years to come as the dust settles on the new digital world. Let’s build that world together and do what the other platforms never had the chance to, and would have killed to have.

About Digital TX Limited

Formed in early 2004, privately owned and based in **London** (UK), Digital TX Limited is a provider of technology and consultancy for interactive digital television and broadband media. Some of the keywords you might associate with us are **IPTV**, **Video On-Demand**, **Triple Play**, **Broadband Entertainment**, **Video Over IP**, **Interactive TV**, **Network Video Gaming** and **Telco TV**.

Our mission is to be the world's leading wholesale provider of broadband entertainment. Our vision is of a world where personalised entertainment is available on-demand 24 hours a day, 365 days a year, at any time, anywhere in the world, on any device. Our technology can power anything your mind can imagine, and beyond.

Digital TX Limited has worked with many leading blue chip communications providers and can help catalyse your route to market for IPTV services by working with you to design your next-generation multimedia network, build your commercial deployment model and broker relationships with vendors, rightsholders, partners and customers. If we can be of any assistance please don’t hesitate to contact **Alexander Cameron** on **+44 (0) 7986 373177** or via email on **alex.cameron@digitaltx.tv**.

http://www.digitaltx.tv