Personal Television Futures

Future Opportunities for Broadcasters Enabled by Personal Media Storage Systems

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Opening - You know what?

it's going to happen…

Personalised TV (PTV) will be ubiquitous and we all need to be ready for it…

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A little history - early av distribution:

- ***Sep 1975 - Sony betamax deck $2300***
- ***Sep 1977 - VHS deck retails for $1000***
- **Nov 1977 - 50 titles available for rental**
- **Dec 1977 - First video rental store,** ***store owner threatened with a lawsuit***
- ***1985 - Rental market $2.5 billion***
- ***2001 - Rental market $8.4 billion***
- **2002 - DVD 30% of rentals, 25 000 video stores in USA**

Source: video software dealers association

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PDR's ubiquitous…once

- The price of home media storage is right
- PDR's are integrated with relevant and attractive consumer electronics
- Support of CE manufacturers, rights holders, broadcasters & MSO's
- The industry is truly creative on this new platform
- Barriers to interoperability are removed

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My talk

What is Personal TV?

Clear and present danger, the first hill

Opportunities, new services & monitisation

Beyond the horizon

What is Personal TV?

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TV and Radio programmes
where the viewer relies
on various
Agents of Choice*
for their media consumption

****Agents of choice - automated and/or manual profiling of consumer preferences***

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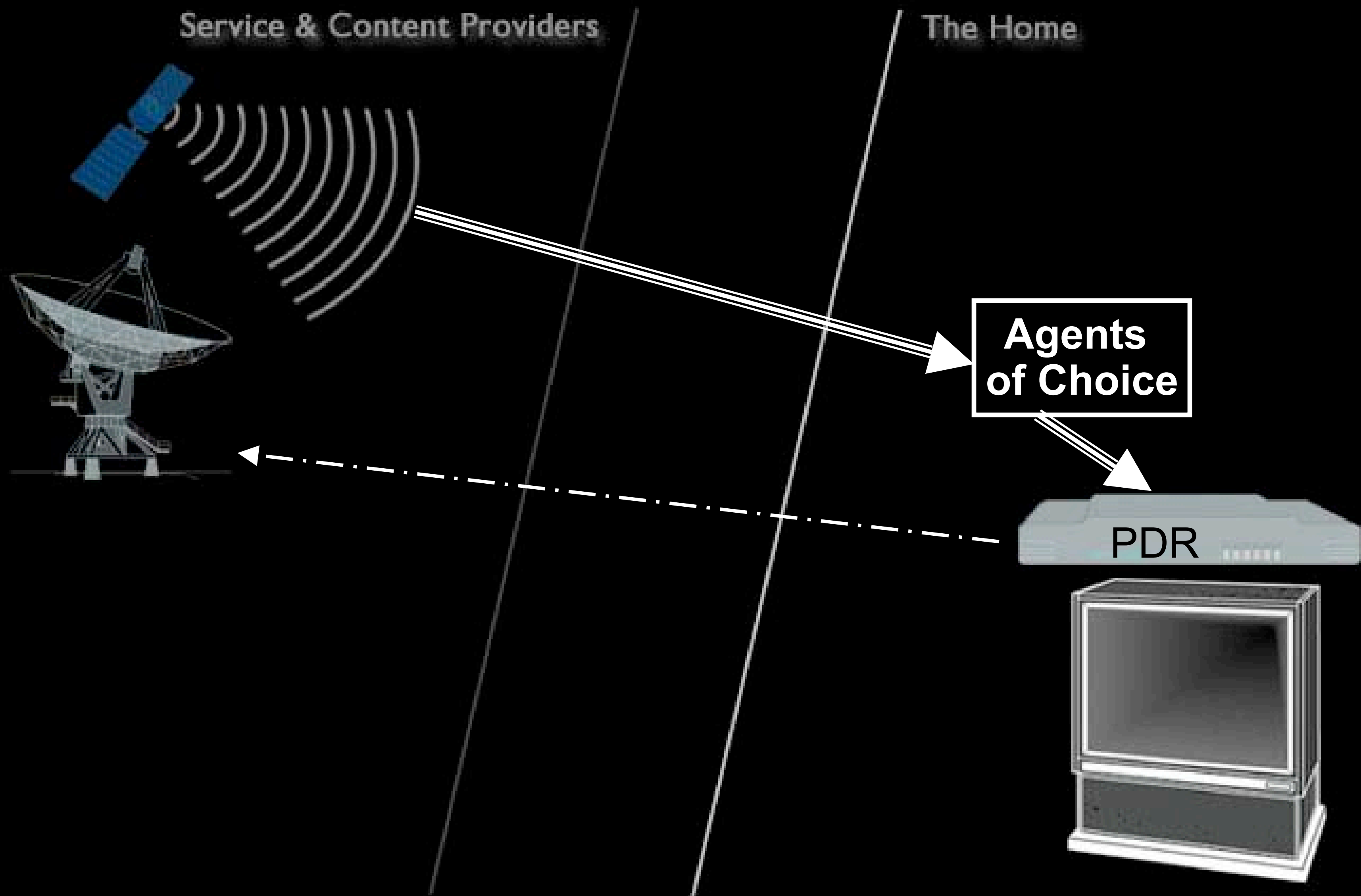

What is Personal TV?

- **People will receive their 'life' content when and where they want it…media storage will be *transparent* and everywhere**
- ***OK - it may be a confusing environment, technically complex…***

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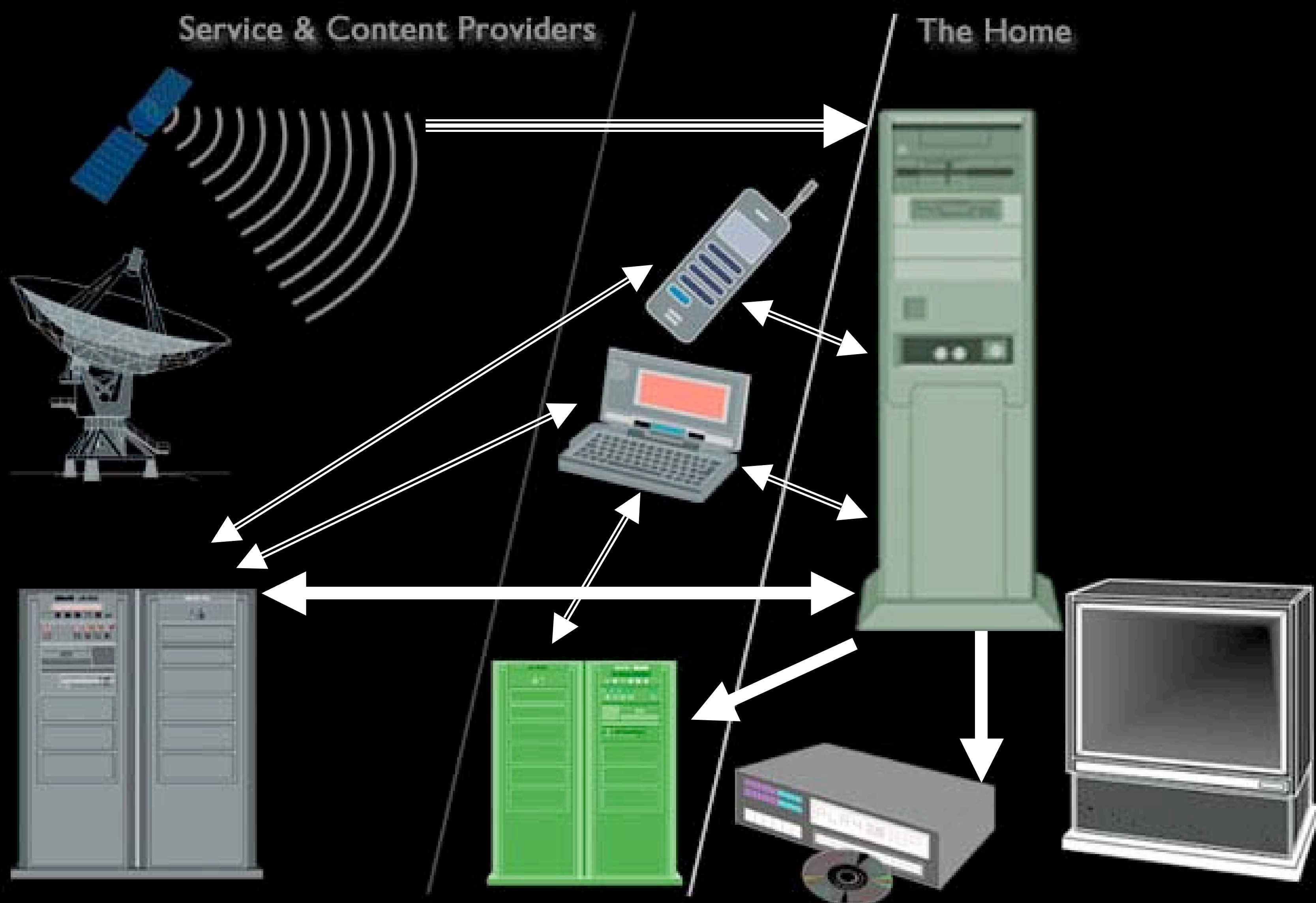

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…but the new technology is here to stay - a 21st century paradigm shift…

1. **All devices have storage**
2. **Agents of choice accepted**
3. **Display devices everywhere**
4. **Interoperability…**

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Simple evolution

1. **dTV receiver**
2. **dTV receiver with storage**
3. **Home 'entertainment & life media server' - stb, pc & games console**
4. **High capacity portable media players e.g: PaVP portable audio/video players & smart displays**

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Changing environment

LOCAL STB	DIGITAL HUBS	DELIVERY
TiVo	Apple	dBroadcast
Sky+	Microsoft	Analogue
DVD-r	Sony	3G
DVR	HP	IP
IntTV's	Samsung	DVD
Dcable	Philips	etc:
DSL	Linux	
PC	etc:	
etc:		

Clear and present danger

"Over the first hill"

WE'VE ALL SEEN THE NEWS!

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BBC New Media Gary Hayes, Senior Development Manager. NAB '03

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Clear and present danger

- Everyone would prefer to receive content and be able to transfer it to people they know and around their own av systems !
- They want to access it EVERYWHERE
- They DON'T want to be forced to see irrelevant content !
- INCLUDING advertisements…

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"…barring government intervention the TV business model of the 20th century is dead"

W Crawford 2002 (Future of DTV)

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The Belfast Telegraph TUESDAY APRIL 1 2003

Jobfinder PUBLIC SECTOR 10 PAGES TODAY

NORTHERN IRELAND'S BIGGEST JOB MARKET • TO ADVERTISE CALL 02890 264338

In today's image conscious world, facing up to facial disfigurement is a tough challenge, with the hidden psychological scars running deep. Research co-ordinator Chris Allam tells **Jane Bell** of the depth of suffering she and her team found in a major new Ulster study

TIME-SHIFTED TV - TRULY 'DISRUPTIVE

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Clear and present danger

PVR's will **kill broadcasting** especially commercial broadcasting.

Allowing **viewers** to view ***what they want when they want*** will mean they:

- **WILL** avoid adverts,
- avoid promotions,
- avoid **ANYTHING** they don't want to see that **TRYS** to get them to transact

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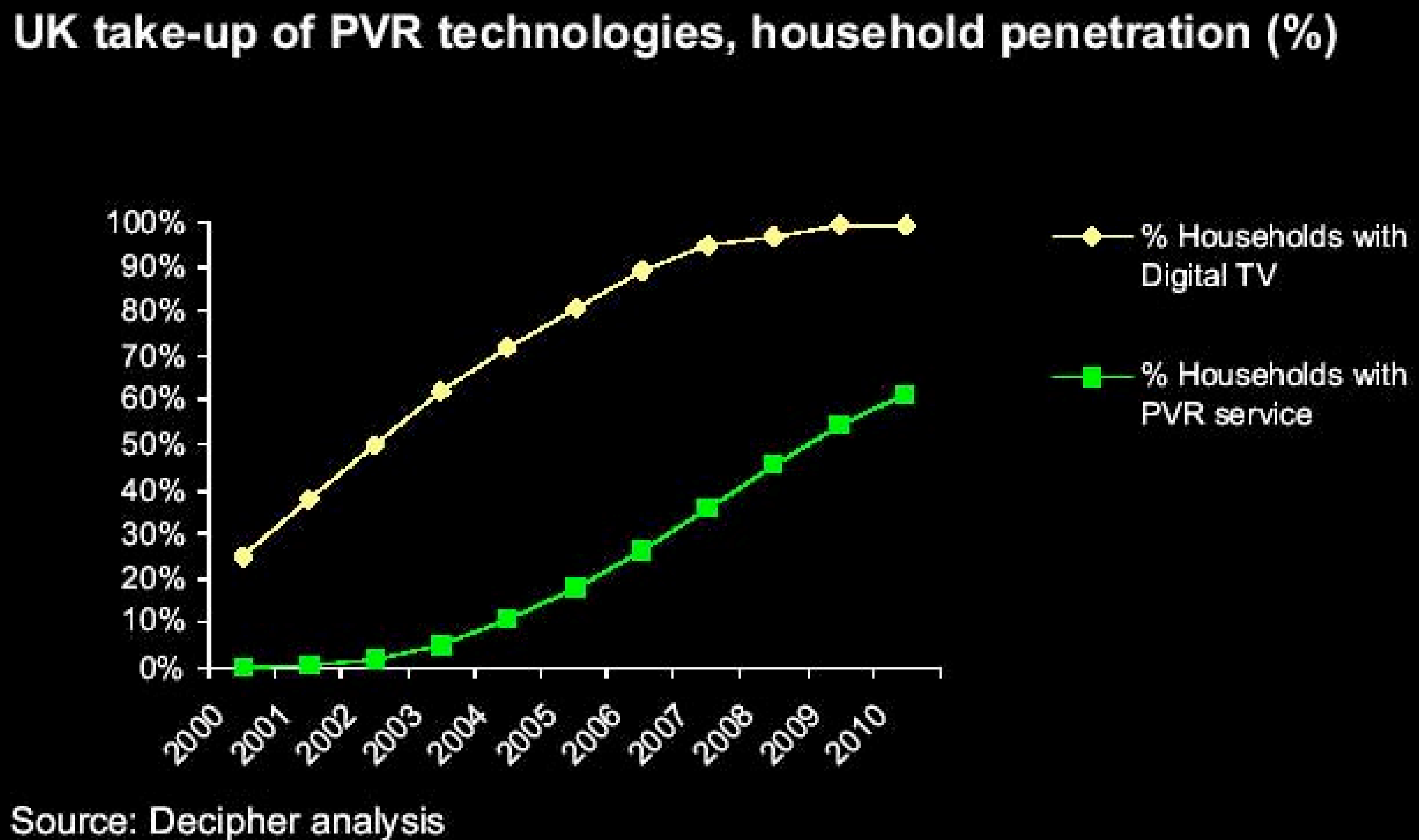

Clear and present danger

Question

What adverts will people not want to skip?

Answer

The ones they REALLY want to see!

Note to industry: RELEVANCE to the viewer…

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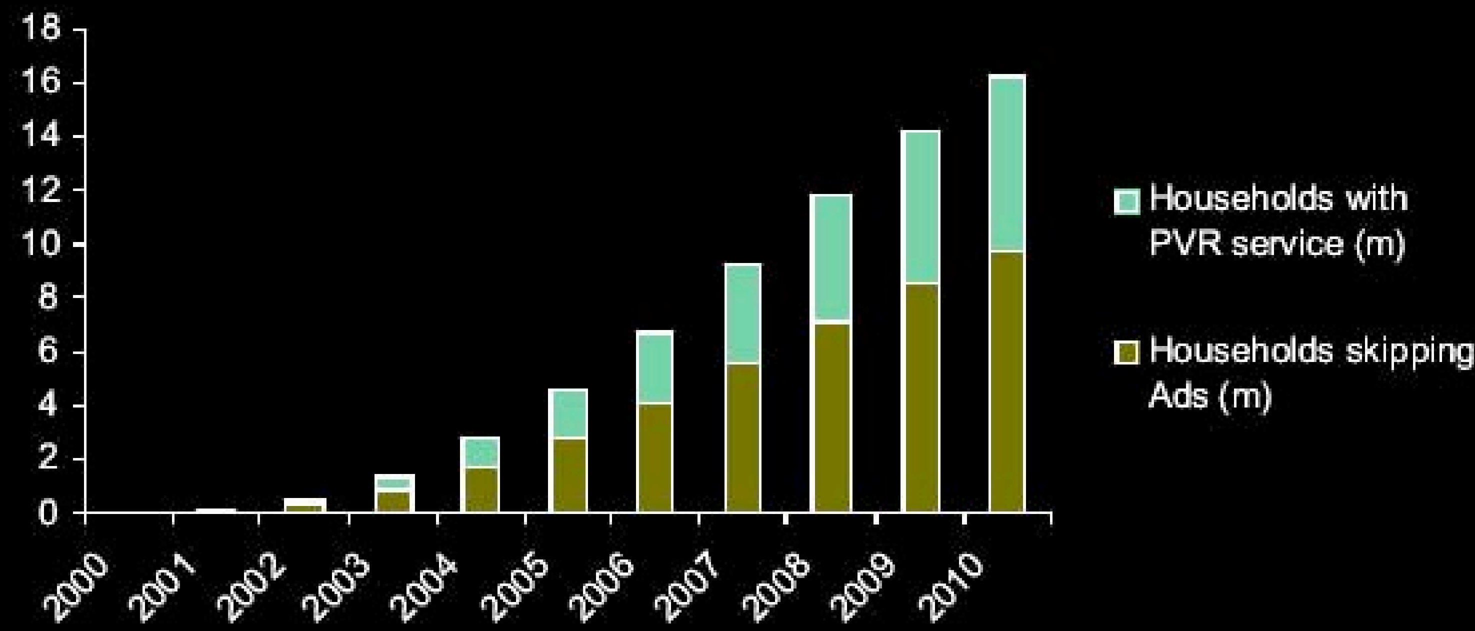
UK household take up of PVR services and ad skipping



Source: Decipher analysis

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Clear and present danger

•88% of the adverts in the programmes viewed on PVRs went unwatched

• Channel surfing decreased by 31%

BUT

• 6 out of 10 TiVo users watched more television.

•ReplayTV reported that, on average, users viewed three hours more television each week

•60% of users watched series that were once unavailable because of inconvenient scheduling

• One third of TiVo users now see television as their primary source of entertainment – twice as many as those without

(Source: Tivo and ReplayTV)

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UK Ownership of entertainment related devices

	Ownership (% of UK households)
Colour TV	96
2+ TVs	60
TV sets 28" & over	16
One VCR or more	84 (of which 19% have two or more)
Video Games	29
Non PC DVD players	1

Source: BARB Establishment Survey 1999, Screen Digest, TGI

In Europe the UK has the second highest percentage of VCR's per TV household - at 86% (Iceland at 88%!).

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What kinds of monitised services could providers offer via PDRs?

- **DVD now represents 57 percent of 2002 home video consumer spending**
- **Rental of movies ($16.8 billion) now twice that of cinema tickets!**
- **DVD in 40 million US households, VHS in 96 million US households**

THE FIGURES ABOVE SAY IT ALL

- **There is a massive market and PERSONAL TV systems will be the most cost effective way to distribute high quality video content - but also new CONTENT…**

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Opportunities, new services & monitisation

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NEW AD MODELS - REACHING INDIVIDUALS

- **Innovative advertising opportunities that deliver individuals directly to advertisers**
- **Qualitative and quantitative measurement.**

TAM (Television Audience Measurement) detailed TV audience information for the 21st century.

- **Extending the reach of targeted TV advertising via SMS, telephony and the web**

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NEW AD MODELS - INNOVATION?

Targeted advertising

we now know who is out there -
individuals appreciate relevance
the ad is way more effective

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NEW AD MODELS - INNOVATION?

Dynamic Insertion

Ads can 'drop' into relevant content and viewers

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NEW AD MODELS - INNOVATION?

Ad *free* or ad *full* 'content'

1 Cheaper programming for the consumer with ads included.
2 If they watch the ad included you get benefits such as extensions to programmes

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NEW AD MODELS - INNOVATION?

Ad positioning

1 Single ads linked to multiple genre programmes
2 Commercial exclusivity - sponsor has 'dynamic' sole placement
3 Effective clustering of ads at beginning and ends of programmes
4 View the program with the default advertisements being replaced with ads from the local store

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NEW AD MODELS - INNOVATION?

Flexible length

Ads can now be any duration!

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NEW AD MODELS - INNOVATION?

"the ad loyalty card"

"You watch my ads we give you benefits such as a free programme or a coupon for real product" (using a personal impression counter)

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NEW AD MODELS - INNOVATION?

Non-skipping options

For additional fees advertisers can force non-skip - regardless of where they are inserted

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NEW AD MODELS - INNOVATION?

Virtual ad channels

viewers choose to go to relevant ad channels

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NEW AD MODELS - INNOVATION?

Infomercials
extending the short form ad.
Greater detail

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NEW AD MODELS - INNOVATION?

Story lines - repeat viewings

Created via stored 'soap operas'

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NEW AD MODELS - INNOVATION?

Topicality

Updating of commercials on the PDR to retain timeliness

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NEW AD MODELS - INNOVATION?

Forced ad playback insertion

e.g: During a programme during playback an ad is inserted and has to be watched or the programme will not continue !

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NEW AD MODELS - INNOVATION?

Guaranteed number of impressions

eg: Brand buys 25 non-skippable impressions for every PDR on the market

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'Push and Pull' targeting and profiling - the three enablers:

1. **Broadcast & location targeting** - Tagging content 'effectively' matched to local devices
2. **Usage reporting** - getting a range of usage data back for analyses. Using core profiles and click tracking, 'we' can understand viewers - anonymous, aggregated viewing patterns.
3. **Content tracking** - over two way broadband environments, tracking content usage. How it is being distributed or shared, leading to pay-per-use and micro payments

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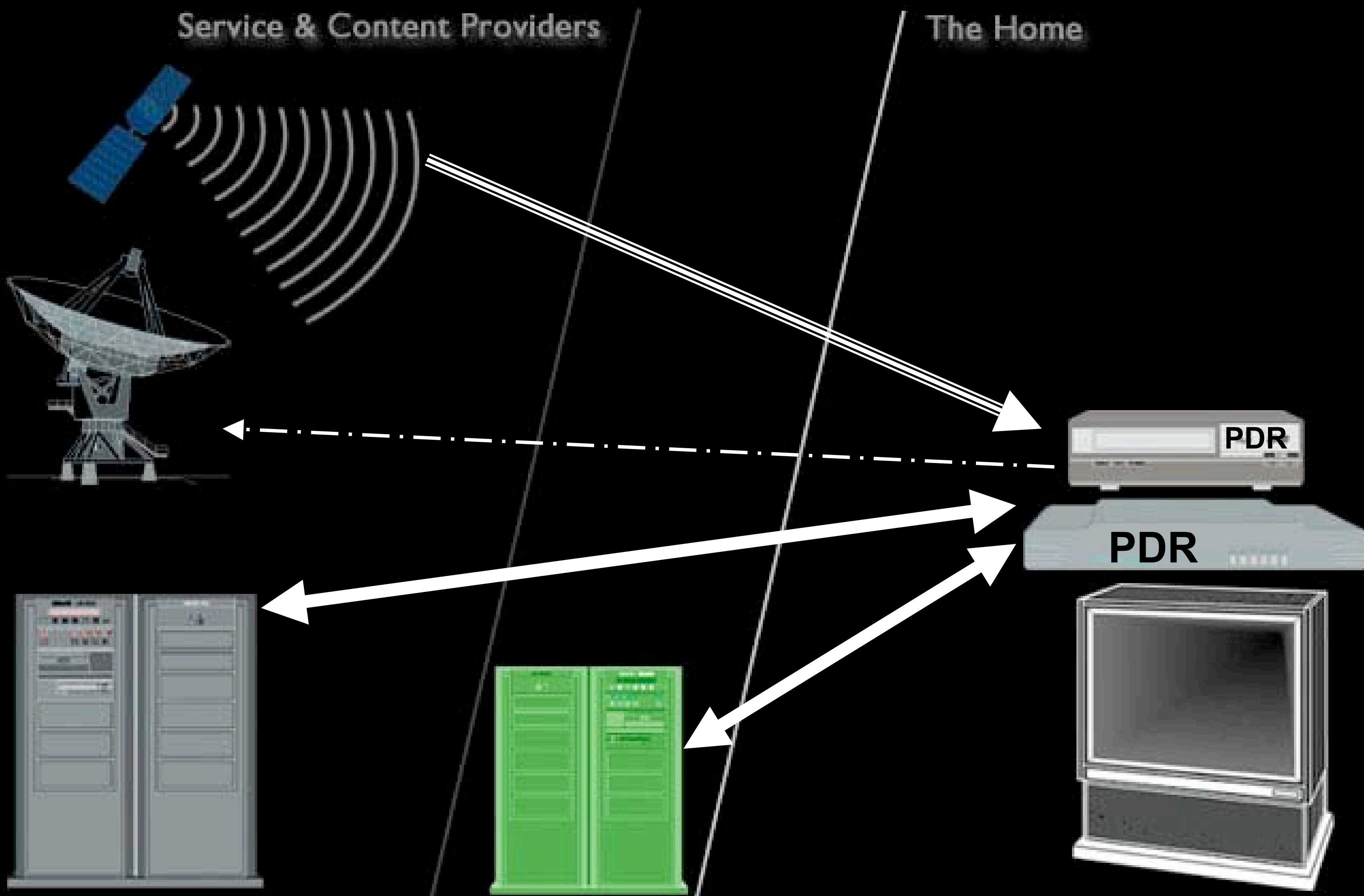

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BBC interactive services, people want to interact

•The BBC is **changing the grammar** of interactive services

•We now have almost as many people in UK using iTV than have used the web - 11 million have used BBC iTV and 13 million BBC Online sites last year

•Over 40 new interactive TV services a month

•Test The Nation – had over 10 times the audience of the internet

•Sport – people want to relive the multistream experience

•Non-linear services…many variations

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What kinds of monitised services could providers offer via PDRs?

- **Highlight** 'capture' of key sports or other live event programmes
- News bulletins - personalised **'regionalised'** capture and **Personalised** capture from magazine programmes
- Packages of **theme'd** or popular programming eg: comedy, drama, kids
- Educational packages with **targeted** levels of learning
- Targeted & niche **promotion** 'off the PDR' to individuals
- Packages of **interactive** TV or web linked enhancements…

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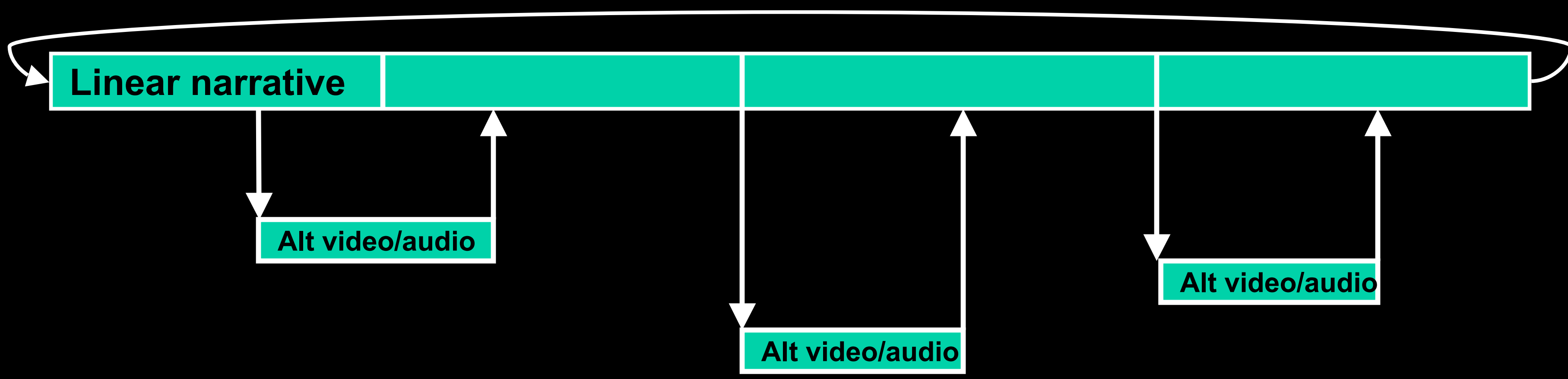
NLN01 (non-linear narrative) - Parallel, sequential, temporal

The linear narrative forms the backbone on which hangs jump off points to alternative commentary, background & perspective. This temporal, time critical interaction of course means care has to be taken so viewers do not feel they are missing out on other streams...



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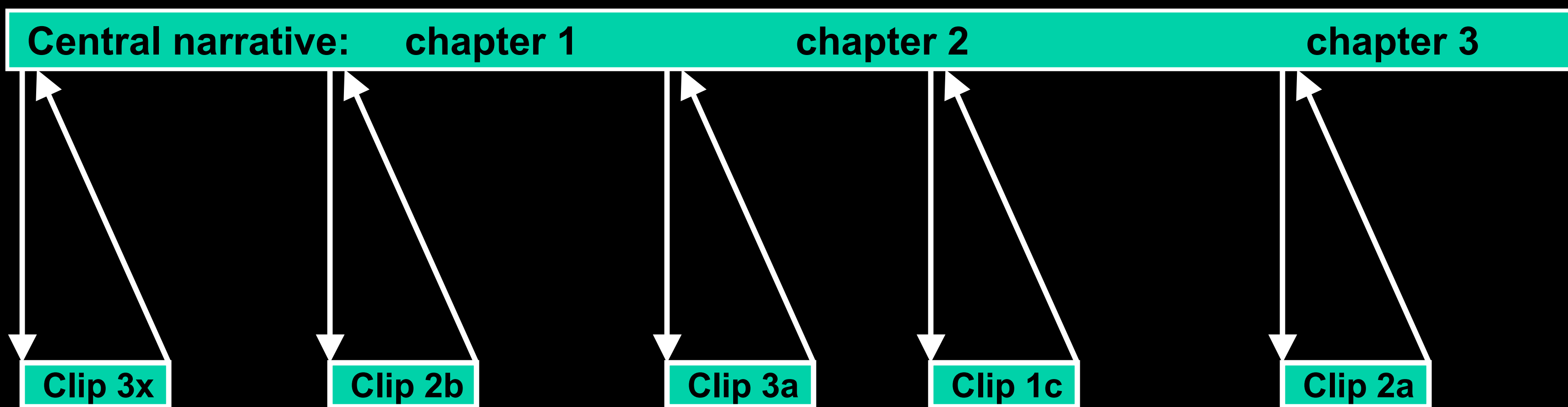
NLN02 - Sequential, tangential scenes

Again linear narrative forms the backbone with jump off points to alternative commentary, background & perspective. Here though we are assuming an on-demand environment and the viewer returns to the main narrative where they left off.

In one example of this format below the short loops from and back offer serendipity, time-shifting and slightly anarchistic and disorientating being relevant to sections further along in the narrative.



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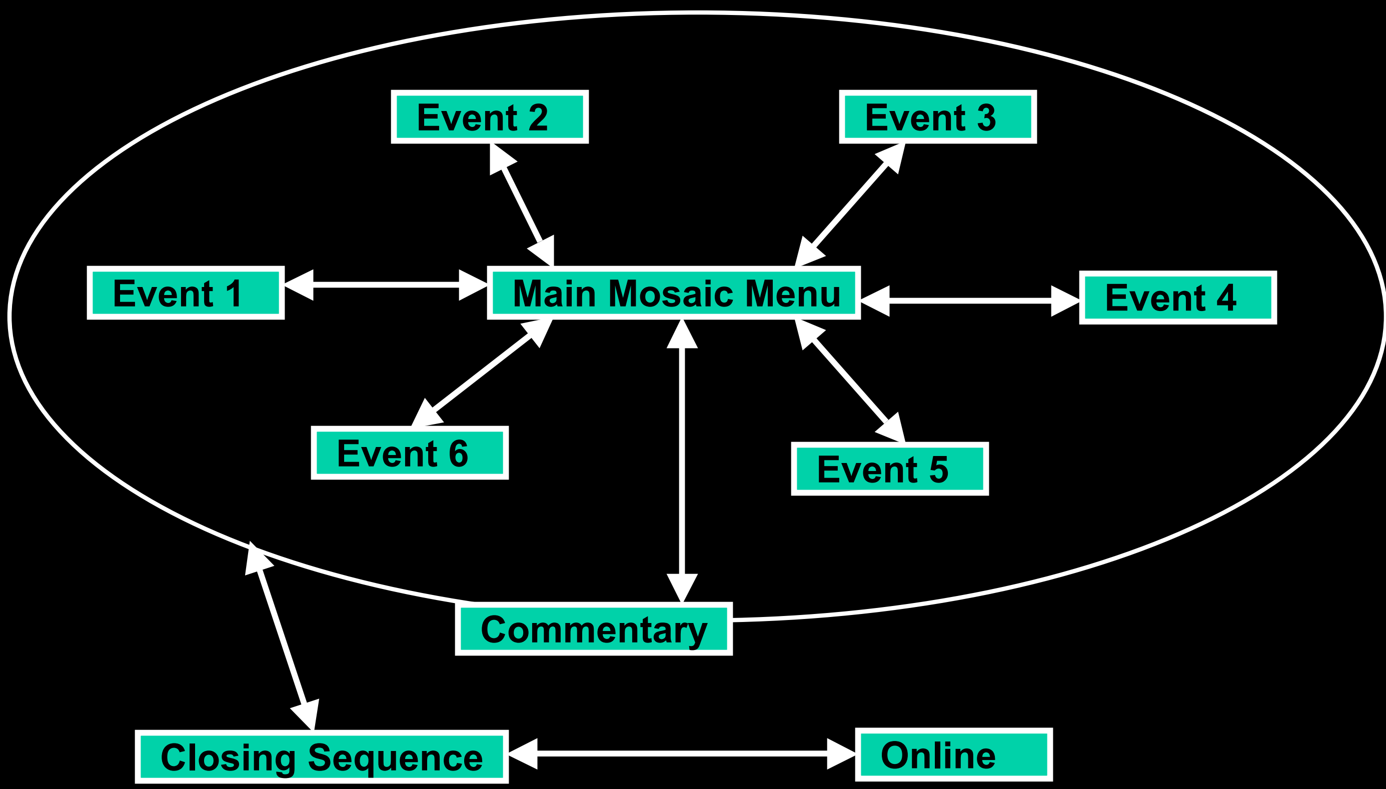
NLN03 - Single node scene menu

A window on the world. Viewers get to choose key events in any order from a central menu. In this example a mosaic 'mind-map' interface, shallow hierarchy, convergent sequence leading to closure and conclusion



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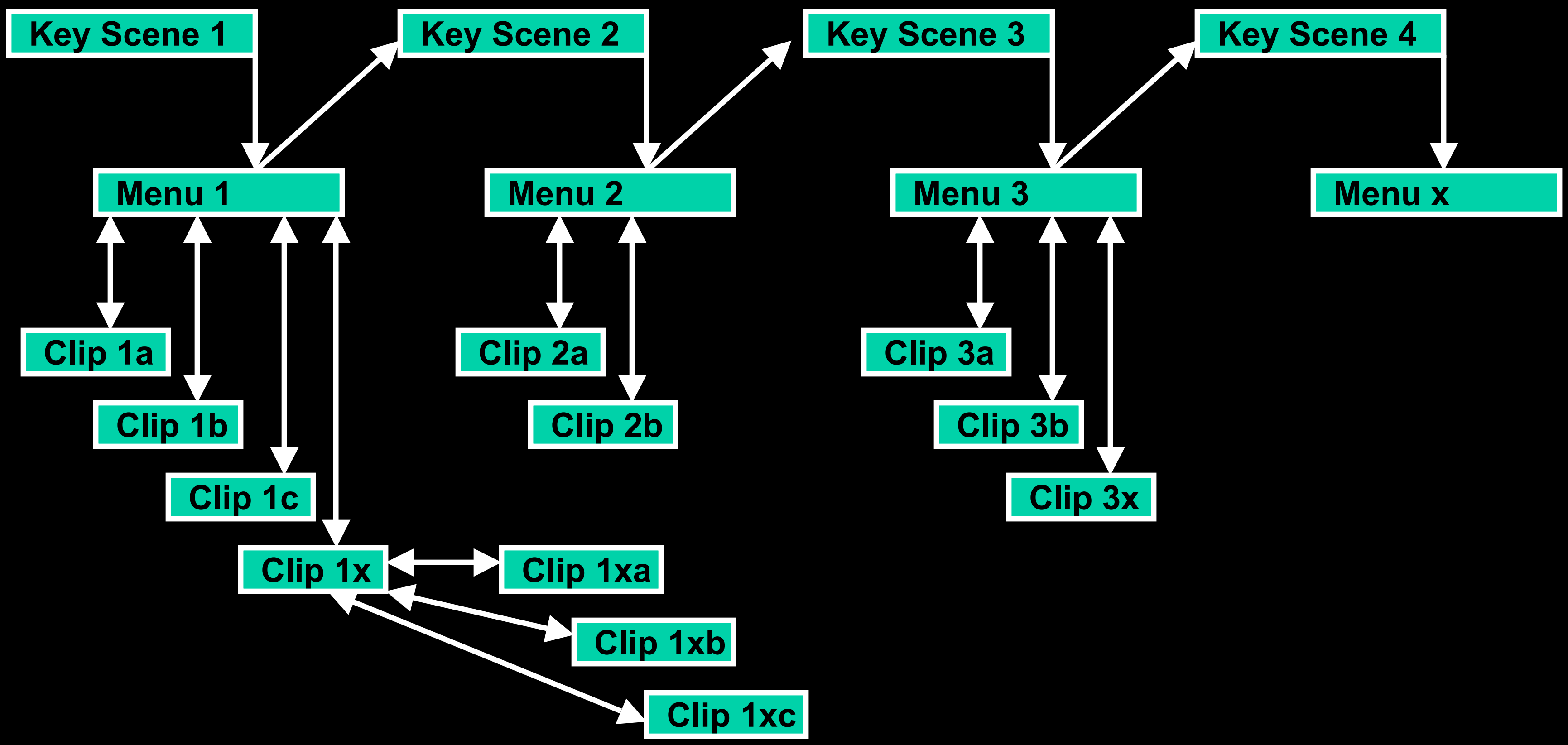
NLN04 - Sequential and branching hierarchy with fixed junctions

Sequential journey through key scene clips laid out in a order. The tangential deep hierarchical links at junctions give more perspective or background. They pick up where they left off to go to the next scene - ideally suited to gaming-type progression with challenges at main junctions.



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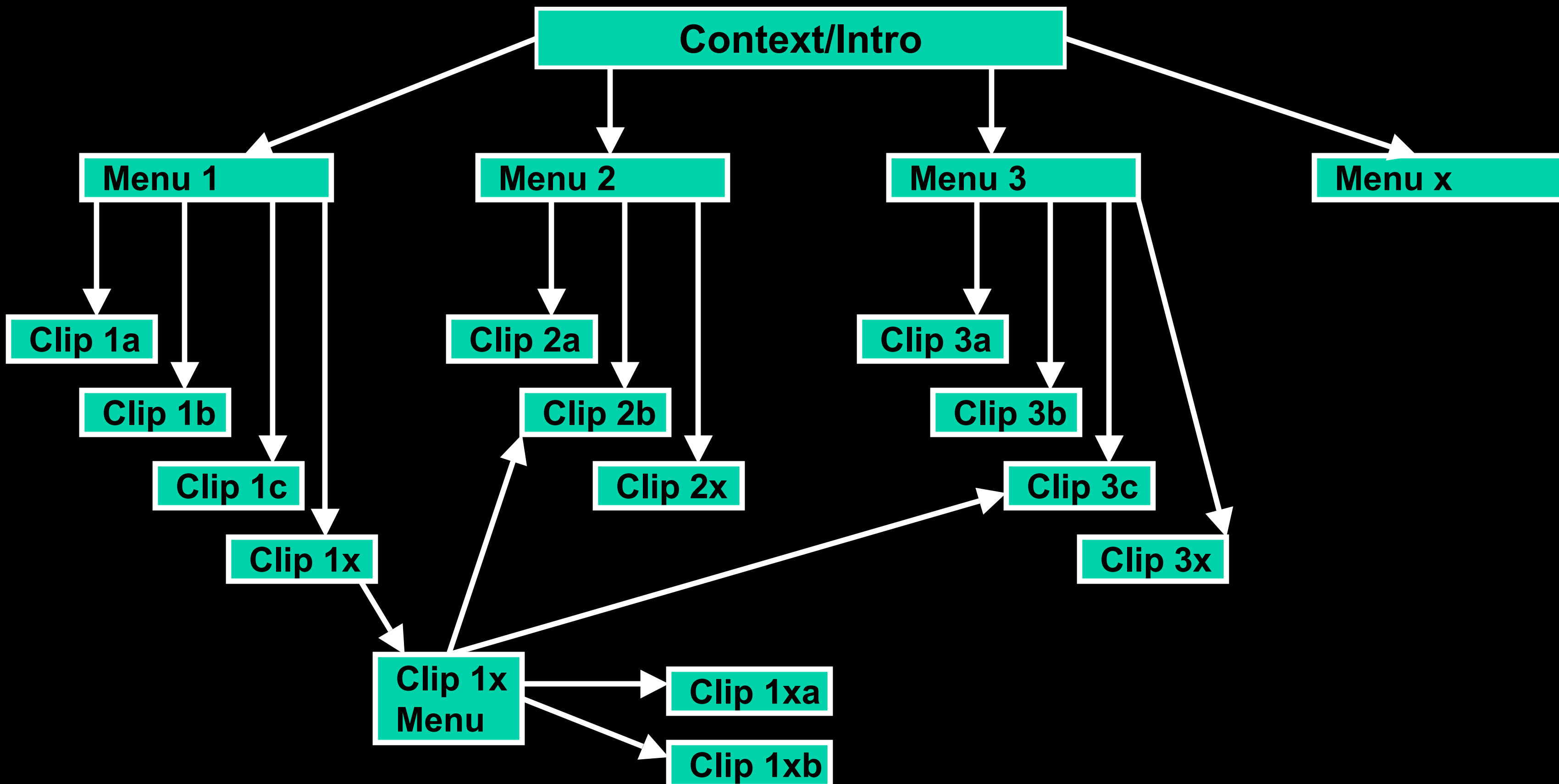
NLN05 - Branching hierarchy, fixed junctions

The most non-linear, a viewer led journey through short scenes, alt perspectives or outcomes, interface leads the viewer onward after each clip, deep hierarchies can be built with a mix of divergent & convergent sequences.



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Beyond the horizon

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KEY INDUSTRY ENABLERS - standards

DO we move forward as an interoperable worldwide industry OR *fragmented & disconnected*

- Agents of choice & targeting - standardised profiling dictionaries.
- IMAGINE a world where providers ‘release’ content, it can find its own audience everywhere and where it generates revenue automatically back to providers
- We NEED standardised metadata to track content – interoperable DRM and DRE - look at the Creative Commons initiative **http://creativecommons.org**

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TV-ANYTIME - PHASE TWO EVOLUTION OF PDR's

1. **New <u>types of content</u> (rich media, graphics, audio etc:) will be captured**
2. **New <u>types of services</u> (non-linear TV, interactive TV, TV combined with web, games etc:) will be captured**
3. **Content will be moved from persistent local storage to <u>removable media</u> (*Content will be further distributed via this removable media)***
4. **A greater range of <u>TVA capable devices</u> will exist**
5. **Content will be <u>moved, copied or streamed</u> between local, connected TVA devices**
6. **Content will be moved, copied or streamed over <u>external networks</u> between TVA devices**

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HOME ENTERTAINMENT FUTURES

- **Currently in the US there are three TV sets per TV household and 105.5 million TV households - about 316,500,000 TV sets**
- **36% of homes will have multiple PCs, 9% broadband Internet, and 4% wired networks.**
- **Unit sales of digital cameras will grow from over 4 million in 2001 to 19.8 million in 2006**
- **In Europe, 15% households will have wireless networks by 2005**
- ***Chip manufacturers are producing single chip multi av decode – NEC up to 4 streams by 2003***
- ***Stategy Analytics Jul 99***

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Postulations - PTV 10 years hence…

- **Scheduled TV will mostly be limited to live sport and news**
- **Distribution of TV content will be 90% broadcast/band and wireless to PTV systems the rest high capacity DVD**
- **You will have portable profiles worldwide and will receive their content anytime/where**
- **All promos and ads will all be highly targeted**
- **Viewers will all have large home servers feeding many displays and devices (in and out of home)**
- **Programmes will be made for time-shifted, large groups of niche audiences**
- **Linear AV only TV will be in the minority**

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THANKYOU

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BBC Online
http://www.bbc.co.uk

BBC Digital TV
http://www.bbc.co.uk/digital/interactive.shtml

BBC iTV Commissioning
http://www.bbc.co.uk/commissioning