

The future of the media

Kiev

15 November 2000

David Wood



The Art and Science of Prediction

- there are a large number of variables, many inter-related,
- so, multiple futures are possible;
- “Chaos” theory can help

“Chaos” Rules Include...

- **“Small” changes now can have dramatic consequences later (the signature of chaos)**
- **Elements of order will emerge (strange attractors)**

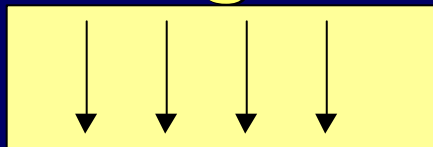
Global attractors

- ***Individualisation*** (services are provided for the individual, media is viewed alone, etc)
- ***Globalisation*** (companies have a propensity to become multinational, until efficiency is stretched too far)

The Shifting Paradigm

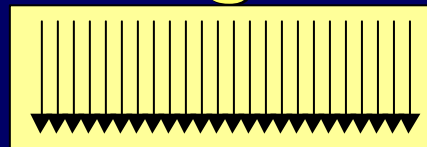


Stage A



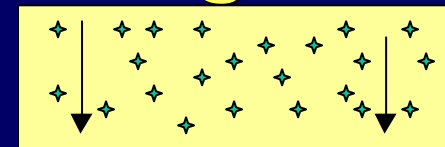
Channel
flows

Stage B



EPG/
Multichannel
flows

Stage C



On
demand

The Shifting Paradigm

- The “seasons” of the media will be three (A, B, C)
- Timetables will be quite different in different places
- The stages will overlap
- There will be forces to retard and accelerate the shift

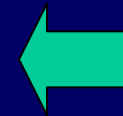
What will be the time-scale?

- How many generations will the shift take?
- In Scandinavia today, 60% of young people's electronic media time is taken up in Internet and video games
- The time-scale may be more related to human nature than technology

The Shifting Paradigm - interim solutions

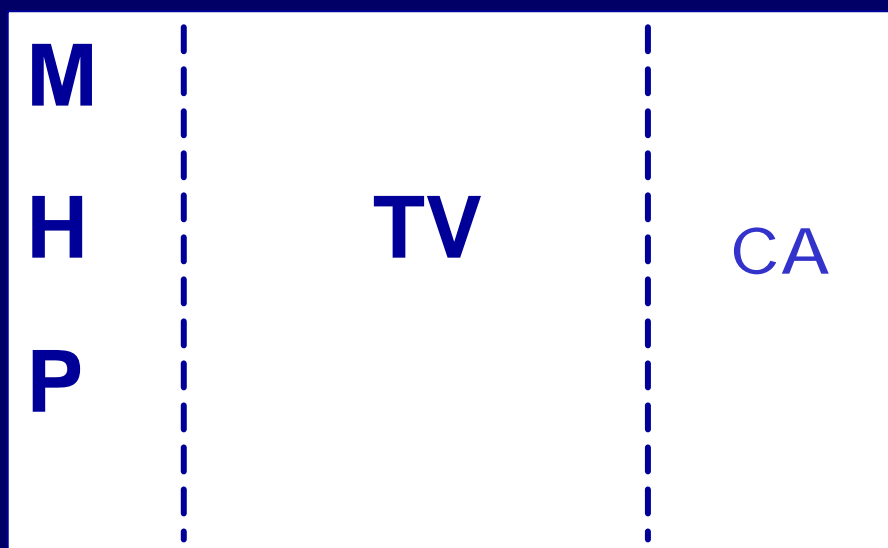
- **Stage B can be made more Stage-C-like, by “client storage”**
- **Stage C can be accelerated by “webcasting”**

Digital TV needed Pay TV services...



**Way
in for
signal**

Then we remembered multimedia...



← **Way
in for
signal**

JEOPARDY!
INTERACTIVE

CATEGORY
America Since
1800

POINTS
100

TOTAL SCORE
0

SPONSORED BY


Check your local listings



ANSWER
 A. Uncanny
 B. Mechanics
 C. None of the Above

WHEEL OF FORTUNE
INTERACTIVE

TOTAL SCORE
0

WHEEL DEAR
0000

WHEEL VALUE
0000

WHEELS
Event

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YOUR LOGO HERE

HOME
11:35 AM - 10:32 PM



ACBS - 4

Swift, Smart and Deadly
10:00 PM - 12:00 PM

today in money
 NASDAQ Reaches New High
 Microsoft leads the tech sector in gains
 more topics

email
 TV listings
 web search
 purchases
 Microsoft TV

around town
LONDON

Weather
At noon PT: 59°F, partly cloudy
Humidity: 60%

THU 73 / 45	FRI 75 / 48	SAT 76 / 48	SUN 67 / 46	MON 66 / 44
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What's Happening
 Movies: Titles, reviews
 Auctions: Bid online
 HICKORY FARMS.com

Things to try
 Find Hardware
 Find a car dealer
 Get local papers
 Find a ZIP code
 Get gov. info
 More to try...

Games..

HOLE
18

8 knots

419 Yards
Par 4

SCORECARD

Player	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Total
SANDELIN, Jarmo	4	4	2	3	3	4	5	4	4	5	5	3	3	3	4	4	4	4	-4
GOOSEN, Retief	4	4	3	4	3	5	3	4	5	4	5	4	3	3	3	3	3	3	-5

COURSE **HOLE** **PLAYER** **TABLE**

ELECTRONIC PROGRAM GUIDE

TIME

SEARCH

All Channels ▾ Mon Aug 25 ▾ Afternoon ▾

		4:30	5 PM	5:30	6 PM
39	COM	Life of Brian			Dread
40	CSPN	Public Policy Conference	Prime Time Public Affairs		
41	TLC	Hometime	Extreme Machines	Surviv	
42	COUR	Supreme Court Watch	Prime Time Justice		Coch
43	BRAV	Paganini's Daemon	Reunion		
44	SCI	Mission Genesis	Seaquest DSV		Destr
45	HIST	Century of Warfare	Newsreels to Nightly News: A History		



Seaquest DSV
 Action; Sci-Fi
 5:00 PM - 6:00 PM
 NR (Not Rated)
 
 Darwin may be the crew's only hope for communicating with an alien.

REMIND

OTHER TIMES

MUSIC CENTRAL
ONLINE™



Come Discover Your Music

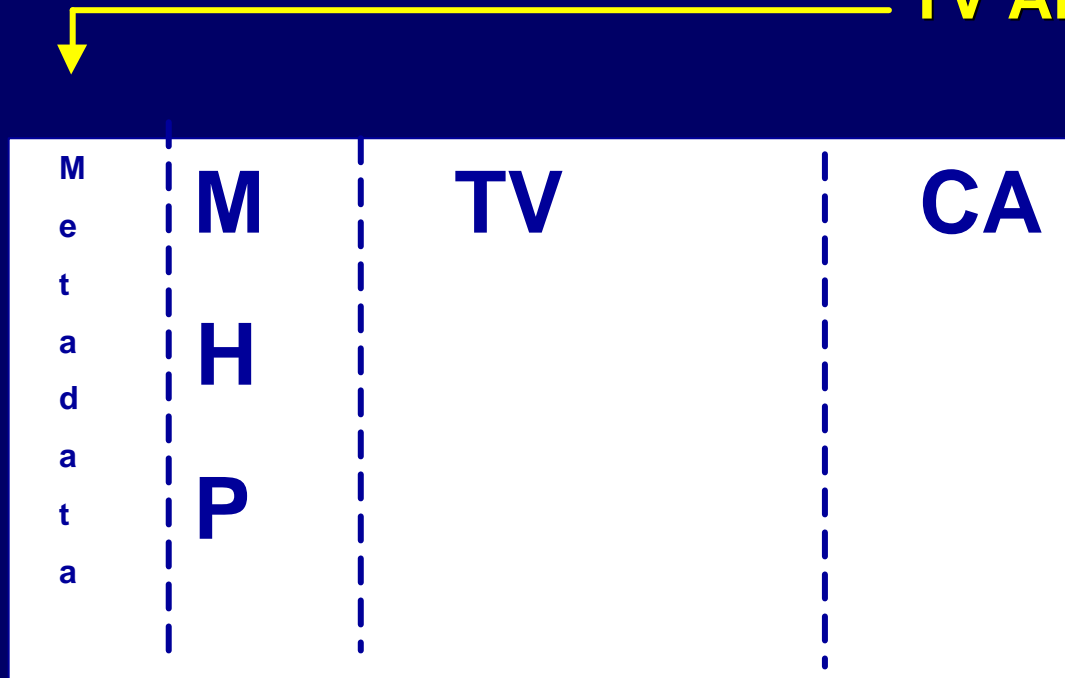
Mon Aug 25
4 30 pm

EPGs...

- **Use the multimedia capability of the receiver,**
- **Become the anchor point for the viewer,**
- **Takes over from the TV channel as focus of viewing**

And we now see we also need content information...

TV Anytime project



**Way in
for
signal**

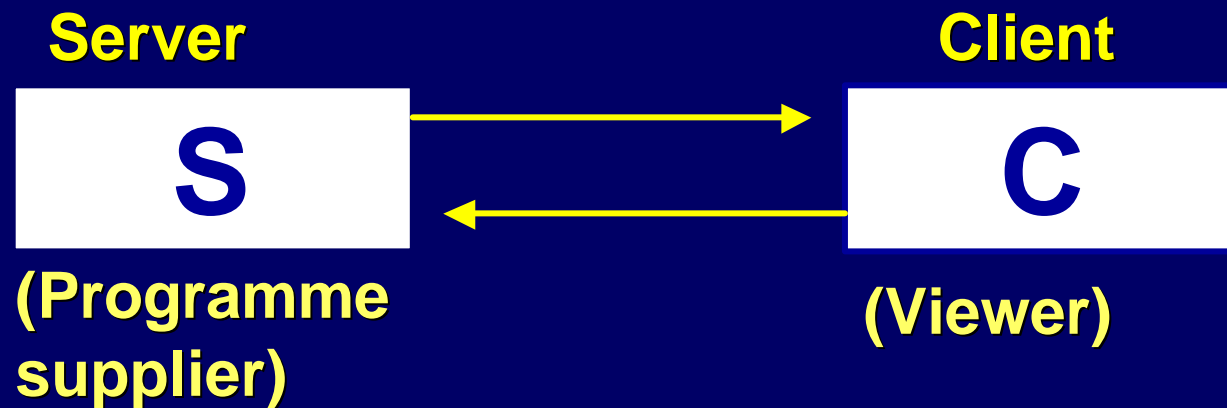
Tools for TV Anytime



Client storage

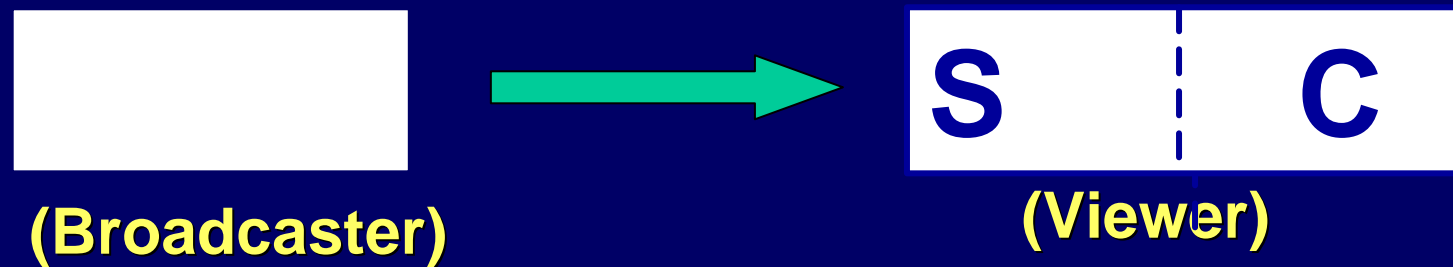
- **An on-demand environment is created in the receiver itself**
- **Makes sense in the short term because of relative costs of storage and networks**

The traditional on-demand environment



On-demand over a distance

The TV Anytime environment



On-demand in the receiver

Webcasting

- **A broadcast environment is created by using multiple addresses**
- **May work, but problem of availability of multicast routers today.**

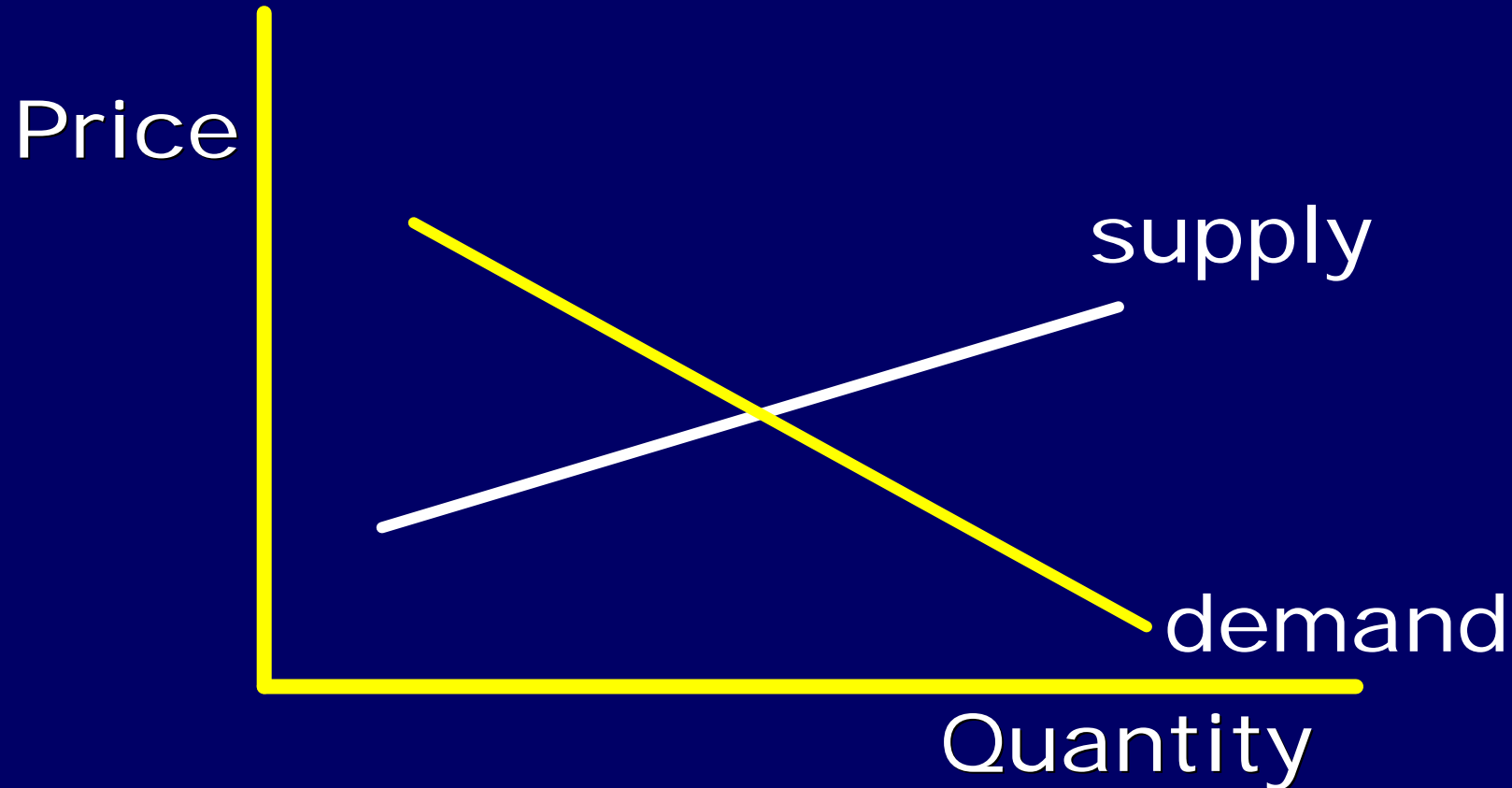
The challenges in stage B

- How to introduce new free-to-air technology to the public
- How to cope with gatekeepers

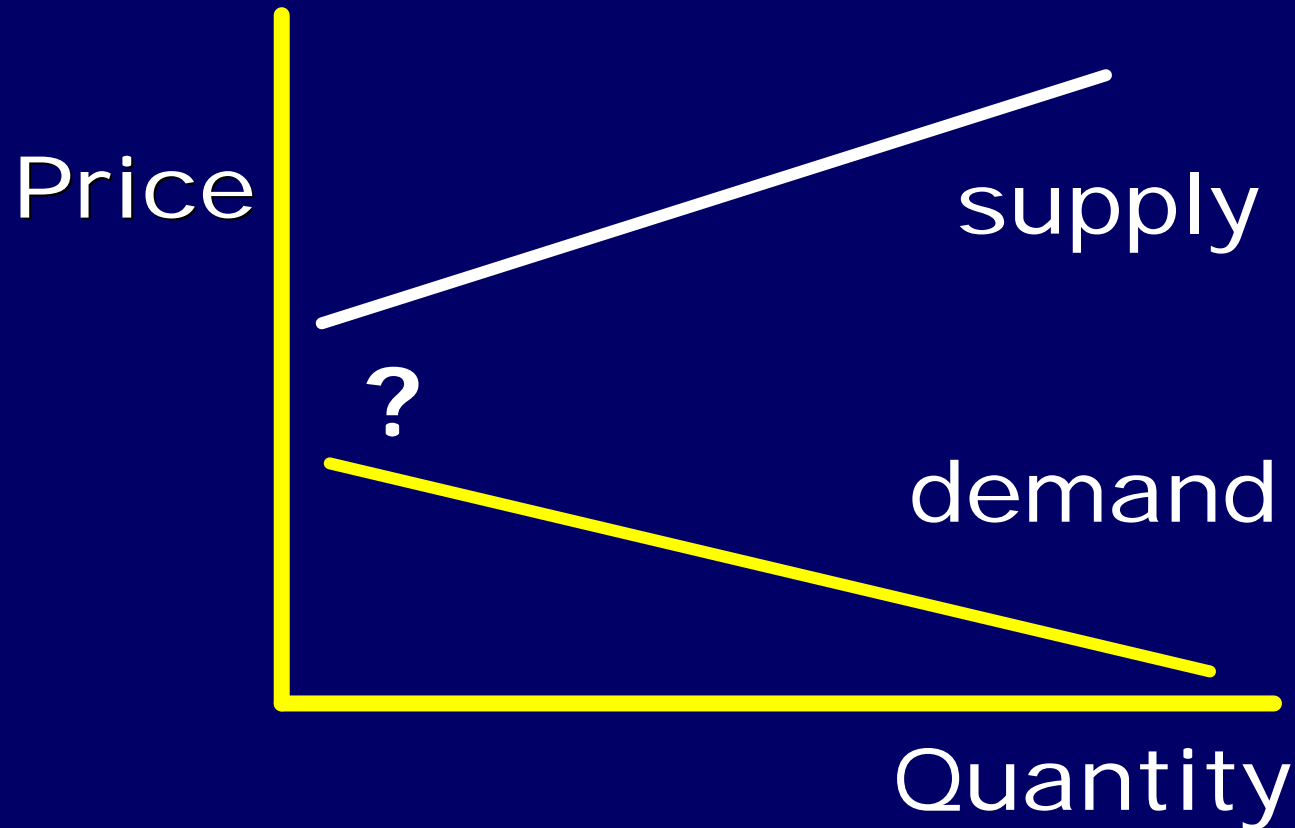
The evidence so far..

- All the *very* successful new digital broadcast systems have relied on pay-tv
- There is no really successful stand alone free-to-air broadcasting yet
- Can it be done?

Market equilibrium



Sorry, no sale!



The Challenges..

- **Can the free-to-air be made to work in the digital environment ?**
- **Can the demand curve be raised enough by content?**
- **Can the supply curve be lowered enough ?**

What broadcasters need to do..

- **First, work out if you really have a business plan - this is not a given!**
- **Evaluate your on-demand future**
- **Build up know how in spectrum planning and economics**

The future is good...

- We should try to help and encourage it to happen - the sooner it comes the better
- But we must cater for legacies responsibly...
- **And don't underestimate the work involved - start now**

**The best way to make correct
predictions about the future
is to shape the future
yourself**



Thank you for your attention
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