

McLuhan Program in Culture and Technology

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The topics I will cover today are:

An introduction to my comments

History of the High Definition Television standard

When will HD be readily accessible to consumers?

Is HD pushing TV to a more cinematic experience ... and losing the TV experience?

How will HD compete with the film industry?

How I believe technology will affect the future

Introduction

Lecture today will be about technology, by a technologist

It is my job to exploit technological capabilities

It is your job to analyze how technological advancements affect people and institutions

So, I will talk mostly about technology, only occasionally offering a layman's view of how people are affected by the technology

My primary area of expertise has been digital television

I was one of the pioneers in digital television, some of my work dates back to the early 1970s

I became involved in HD television standards in the 1980s

When that work was completed, in late 1995, I took a position here in Hollywood using HD but in a movie, or film, environment

Perhaps I should say that my expertise is digital video, not digital television, because it is becoming more difficult to separate what is television and what is movies

On the other hand, the word "video" also is too closely associated with television

So, maybe digital imaging is my area, whether it is for television, or for movies

Did you notice that I have trouble separating what is television from what is movies?

History of HD standard

Early work was geared to getting a world-wide standard

That failed as different HD standards were being adopted in different regions

We had 50 Hz HD standards in 50 fields per second power-line countries

We had 60 Hz HD standards in 60 fields per second power-line countries

These are the same divisions that exist in the PAL and NTSC worlds

History of TV has been multiple regional standards
However, the history of movies has been one world-wide standard
With the HD standard, as time went on, more people became involved
There were diverging views, difficulty getting consensus
This was true both internationally and domestically
Internationally it caused the regional standards
Domestically it caused long delays in getting a standard
In 1995 the US HD standard was completed
It was adopted by the FCC in December 1996
The US standard has survived some challenges since then
But there are still a couple outstanding issues that I will talk about in a few minutes
Finally, in 1999, after 15 years of intensive world-wide discussions, there was world-wide agreement on an HD standard at 24 frames per second, the same frame rate as film

TV vs Movies

A long time ago, movies were square, then TV came along
TV adopted the same aspect ratio as movies, so movies went wide screen
You know that most movies today are shot with 35mm film
Well, most TV shows are also shot with 35mm film, it is just a different use of the same medium
Standard definition TV is a square screen, with low resolution
It requires close-up work because of the low resolution
HD is wide screen, high resolution, good for scenic views, wide angle shooting
This difference is similar to the difference between TV and movies
So, is HD the same as movies? Will digital cinema just be a big TV screen?
Movie people do not want digital cinema to be the same, or even similar to HD
HD and digital cinema could be the same, just different use of medium
TV will not change radically because of HD, HD is just an evolutionary step
Feelings and moods are different for drama and news
Movies are good at drama, TV is good at news
Drama is story telling, news is reality
September 11 news was like movie special effects, but it was real, most people saw the TV version, not the reality
So, even TV has some difficulty with reality

When will HD be readily accessible to consumers?

It is today

HD sets can be bought at Circuit City, Best Buy, other places that carry TV sets

HD is broadcast by DirecTV, by the networks on terrestrial TV

CBS prime time is mostly HD, ABC is majority HD, NBC has one prime time show.

CBS has HD soap opera "The Young and the Restless"

NBC has HD Leno show

The real question is when will consumers embrace HD

HD sets have declined in price, but are still expensive for mass market

There are still issues on standards, primarily related to cable and to copy protection

Why is copy protection an issue? Because HD quality can be same as theatrical movie experience

HD will happen though, it is evolutionary

Over half the people in US have computer in the home, resolution today is XGA, which blows away NTSC

TV must improve, and it will

Color TV standard was adopted by FCC in December 1953, networks went full color in prime time in 1967

DVD was released in 1997, VHS releases will likely decline in next year, three years at most

CDs long ago replaced LPs

From studies I have done in past, new technologies rapidly replace old technologies, once they get rolling

The only question is when HD will really start rolling

Is HD pushing TV to a more cinematic experience ... and loosing the TV experience?

In the early days of TV, and for a generation, TV was a connection to the world

There was limited choice of programming

The nation would sit down together and see one show

Now there is unbelievable choice

HD will not change that

HD is a more cinematic experience, but the TV experience, as I define it, went away with the multiplicity of programming choice

How will HD compete with the film industry?

Earlier I mentioned how movies went wide screen at the same time as TV was moving into homes

Movie people fought the VCR, but today they derive more revenue from TV screens than they do from movie screens

Movies are still very important, though, because TV revenue relates to theatrical revenue

With HD, you can have a quality large screen experience in the home

In this case, large screen means having the screen occupy the dominant portion of human vision, viewing from three times picture height, or about twice picture width

NTSC viewing is seven times picture height, or about five times picture width

Movie distribution could change where movies go directly to home theatres, at a price, at the same time they go to theatrical exhibition

Perhaps question should be how HD will compete with film exhibition industry

How will technology affect future

Recently some movies have been shot with TV cameras, "Blair Witch" is an example

Film schools use TV cameras, filmmakers today are more amenable to use of video

New technology of HD is 24P, same as film

"Star Wars Episode II" was shot with 24P digital camera, several movies in progress now being shot with the digital camera

More movies will be shot digitally

Movies will be exhibited digitally

Even film exhibition will be affected because color timing will be digital

Keep in mind that movies tell stories, they are the modern campfire late night stories

Filmmakers want to tell stories, they use technology to enhance their story telling abilities

Technologists like myself simply give them tools to make it easier