

European Institute for the Media

6th European Television and Film Forum

Liege, Belgium

November 10, 1994

**The Stages of Television:  
From Multi-Channel Television to Me-TV**

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Television evolves in several stages. The first two are well-understood, the third is rarely recognized. The first stage is *limited broadcasting* (radio and then TV) operated under significant state supervision. It is followed by *multi-channel TV*, the presently emerging system, but not the end of evolution. The third stage is *distributed television*, the TV of the future.

### **Stage I: Limited Television**

The period of limited TV is itself composed of several distinct phases. Most European countries, after brief periods of early private radio, established limited state broadcasting in the 1920s and early 1930s, and used it as a tool of government. It is easy to see this for the various dictatorships of the era, but even in pre-war Britain, Winston Churchill was never allowed to raise his warnings against the policy of appeasement over the BBC.

The emergence of television strengthened state broadcasting still further. TV is expensive to produce and requires much more spectrum than radio. This kept the number of television channels to a number even more limited than radio. To put them into the hands of private interests after two decades of ideological conflicts and wars seemed unwise.

In the late 1950s, European societies began to become less polarized. Transfers of power and even coalitions among moderate left and moderate right parties became fairly normal. The institutions themselves, developing professional standards as they grew enormously with television, sought independence. As democracies stabilized, government television became less acceptable, and shared control was introduced. Thus, the governmental control of broadcasting was relaxed through much of Europe in the 1960s in favor of a more independent status. Limited broadcasting moved into the phase of independent television, the golden age of public

broadcasting characterized by programs of high quality, but within a limited choice, and part of often party- politicized institutions.

Many viewers did not feel their program preferences were met: others were turned off by party wrangling or by a perceived bias in reporting. This dissatisfaction was the background to the emergence of pressures that moved the broadcast system into a limited private television based on a mixed system of public and privileged commercial television.

Change began with radio, where the stakes and the entry barriers were lower than those for television. Indeed, the restrictions had become porous, and pirates were embarrassing the official system by defying persistent efforts to close them down and by their popularity with audiences. In many instances, radio liberalization became merely the ratification of reality. But it created a legal and organized model for the new broadcast environment, and it changed attitudes by demonstrating the vitality of entry and the absence of one-sided political (i.e., right-wing business) control.

In any event, spectrum allocation became less relevant because of the emergence of a key new distribution medium, cable television. It is difficult to overestimate the impact of this form of distribution. Several European countries established wide-ranging cable networks in the 1980s. Once these distribution pipes reached into many households, they were filled with additional programs of other public stations, typically from adjoining countries, because those were the only ones readily available. But soon, commercial offerors presented themselves.

Once these commercial offerors were ready to serve, the basic question of admissibility of commercial programs could no longer be postponed. The old justifications for limited television had become irrelevant; physical scarcity of channel capacity was not the problem.

Even though early cable systems had only five to fifteen channels, it was well understood that the number could be much larger. If anything, the problem is how to fill the channels with attractive programs, which has shifted the burden of proof radically.

Technology played a function in this change, but it would be inaccurate to ascribe to it a central role and to hide basic societal decisions behind the alleged relentlessness of technology. Technology was enabling but not determinative. Terrestrial broadcasting required licensing, not new technology. Italy is full of stations using old-fashioned broadcast technology. And coaxial cable is a fairly basic technology that has been around for a long time.

Most European countries liberalized broadcasting and permitted commercial broadcasting in the late 1980s (Luxembourg, The United Kingdom and Finland began earlier). A main jolt to the traditional system occurred in Italy, where in 1976 the broadcast monopoly collapsed almost overnight. Despite strenuous internal resistance, within the 1980s almost all European countries opened up in what future generations may consider a tidal wave: Germany, in 1984; France and Iceland, in 1986; Belgium, in 1987; Denmark and Ireland, in 1988; Spain, in 1989; Israel, Netherlands, Greece, and Norway, in 1990; and Portugal and Sweden, in 1991.

The liberalization that occurred in the late 1980s should not be confused with an open system. It is merely a partial opening, and it leads into the final phase of limited television: **privileged private TV**. It is privileged in the sense that entry is still highly restrictive, and allocated by governments in large measure for reasons of politics and favoritism.

In many countries, TV licenses were allocated without clear criteria and explanation. Yet they constitute huge financial windfalls. Even where the licenses did not go to present friends and future allies, they still are a favor granted and one that can be withdrawn.

The tendency of limited private television is toward oligopolistic behavior. In the United Kingdom, the ITV companies established a cartel system among themselves, and a cooperative arrangement with their rival BBC. They did not compete in the acquisition of programs instances. The British example is also useful in another way. There was a broad-based opposition to further opening. The BBC and its supporters opposed the lowering of barriers to entry, alongside the private ITV companies. In Finland, the private MTV similarly resisted new commercial entrants. And in the United States, broadcasters generally obstructed in the 1970s an expansion of cable television's ability to provide additional programs. It is easy for all incumbents to agree on the undesirability of further entry and to oppose it. A future further opening of television is thus contested by a formidable coalition of the public broadcasters, private broadcasters, and influential parts of the publishing industry that have obtained television licenses.

## **Stage II: Multichannel TV**

Is the system of limited television stable? After all, the monopoly system has already broken down. Would the oligopoly system prove more resilient? The answer is no. For all the efforts that they expend, media incumbents are subject to the same forces that led to the demise of the entrenched monopoly—entrepreneurial innovation, audience demand, producer dissatisfaction, multichannel delivery on cable and DBS, imported channels, and so on. But it will take time for those forces to lead to the next phase of television, the multi-channel open television system.

Perhaps the best one can say about privileged entry is that it permits society and other parts of the media system to adjust gradually to a more open system. Another positive aspect

to privileged entry is that it is generally more palatable to opponents of openness in television, who tend to believe that the less there is of it, the better. But actually the opposite is the case: The most questionable system is a highly profitable medium under the protection of the government and run by its private-sector beneficiaries.

Many people believe that the evolution to an open multichannel TV leads to "more of the same," simply to a multiplication of the old type of programming. But this is incorrect in terms of economic logic as well as empiricism, at least for the United States.

Commercial television frequently disappoints those seeking the standards of public service television. But this cannot be simply because the medium is commercial. After all, most print publishers and film producers are also profit-oriented, and they turn out many works of high cultural standards (as well as of low ones). But the traditional commercial TV system was limited to an incredibly small number of channels, and it therefore served mainly the broad center of the "taste distribution". The guiding program philosophy was frequently but incorrectly described as "lowest common denominator" programming. In fact, it did not aim at the lowest level of audiences, but at the most prevalent one -- the popular culture of the middle and lower middle classes.

Those who observe such a culturally disappointing performance of the limited commercial system often tend to believe that the less there is of it, the better. Actually the opposite is the case: the most problematic TV system is a commercial system that is limited and that depends on government to protect its scarce licenses from competitors, and which due to its scarcity serves only the center of the taste distribution. Others believe that high profits of the limited system are required for high-quality productions. But that assumes that artistic creativity is

based on a patronage system in which rich institutions can pass on some of their resources to the artistic community. Genuine creativity, however, is most likely to flourish in an environment of many avenues of production and distribution serving numerous tastes.

In 1994 there were 99 different cable channels operating in the United States. The number of channels has increased from 4 in 1976, 43 in 1983, and 99 in 1994. They include:

**Children:** Cartoon  
Disney  
Learning Channel  
Nickelodeon

**General Interest**

**& Movies:** USA  
TNT  
TBS  
American Movie Classics  
Cinemax  
Encore  
Flix  
Foxnet  
HBO  
KTLA  
KTVT  
WGN  
WPIX  
WSBK  
WFIT  
WWOR

**Sports:** ESPN  
Empire Sports  
Home Sports  
Home Team Sports  
Midwest Sports  
Madison Square Garden  
KBL Sports  
New England Sports  
Prime Sports  
Prime Sports Northwest

Prime Ticket  
Pro Am Sports  
Sports Channel Chicago  
Sports Channel Florida  
Sports Channel Hawaii  
Sports Channel New England  
Sports Channel NY  
Sports Channel Ohio  
Sports Channel Pacific  
Sports Channel Philadelphia  
Sports South

**Religion:** Family  
Catholic Cable  
Jewish Cable N/W  
Faith & Values  
Inspirational N/W  
Worship

**Arts &  
Education:** A&E  
Americana  
Bravo

**Women:** Lifetime

**News,  
Documentary  
& Talk:** C-SPAN  
CNN  
Headline News  
Discovery  
CNBC  
Courtroom TV  
Crime Channel  
Deep Dish  
Future Local Channel PPV:Action  
Travel Channel  
E! Entertainment

**Music:** CMT  
TNN  
MTV  
VH-1



The Box  
Z-music  
Mormusic

**Adult:** Adam & Eve  
Playboy  
Ecstasy

**Ethnic:** BET  
Caribbean  
Galavision  
GEMS  
Interest Channel  
TV-Japan  
Nat European News N/W

**Shopping:** QVC  
HSN I, II

**Regional:** California Channel  
ChicagoLand TV News  
1-TV  
Newschannel 8  
NY 1 News  
Orange County News  
Penn Vision  
Pittsburgh Cable News

**Special Interest:**

Nostalgia TV  
Sci Fi Channel  
TV Food Network  
Computer Network  
Weather Channel  
Disability Channel  
Health Club  
Employment Channel  
Comedy Central

This trend continues unabated. In 1992, 20 new program channels were offered to cable operators and in the first half of 1994 alone, over 70. They include: antique auctions; automobiles; arts performances; bingo; books; business; catalogues; computers; cowboys; classic

arts: classic sports (old highlights): crime: dating: deaf and disabled: environment: fashion: games: gambling; gardening: golf: healing; health: history: home buying: how to: human development: independent films: inspiration: international business: jazz: lectures: military: museums and exhibitions: mothers of newborns: movies: multicultural: new age: outdoor: pets: public affairs; real estate: recovery for alcoholics: romance: self-help; shopping: short movies: singles; soap opera; and Spanish.

Thus, there will be quality channels each night, far more than a person can watch. But to find them will take some navigating past the World Wrestling Federation, romance, gambling, and shopping channels. And they will not be free, and hence not affordable by all. And its diversity will also be fragmenting.

There is more news and public affairs programming available today on American TV than ever. Serious news magazine shows have proliferated. Four are among the top 20 programs in terms of audience.

What is missing? Specialized instructional programs; programs in languages without a concentrated U.S. base of speakers; foreign channels. Nor is there yet an interactive channel of merit. The beginnings of interactivity are in shopping and games and, in the future, probably in adult programs. There are no controversial political channels of extreme left or right wing programs. (Some of these are available through local non-profit public access channels.) There are no channels for native Americans (Indians). But in particular, there are no new channels for children. There is no "Fairy Tale Channel" or "Elementary School Channel".

This trend toward more channels will continue. The major bottleneck is the limited channel capacity which now averages between 35 and 55 channels, but is being overcome. In

New York, one cable system carries 150 channels. New technologies such as fiber compression are being used, and an experiment in Orlando, Florida offers 500 channels. Other channels are offered by direct telephone wires (experimentally), and microwave "wireless cable."

### **Stage III: Distributed TV**

It is tempting to believe that, as this trend continues, we will move to the mega-channel television. But this would be an incorrect extrapolation. Actually, the opposite will happen: We will move into the third stage of TV: *distributed television*. The key technologies here are video servers, broadband switching, and navigational agents. Fiber lines are important but not essential. The technology can rely on upgraded copper wire, using encoding and noise-reduction techniques (ADSL, 16 CAP, Tut) that permit the use of a telephone line as a video conduit. Although fiber helps, it is the switching that is important. Video servers are large computer-like storage devices, storing thousands of films, documentaries, and other kinds of programs. Many companies will operate these video servers, charging a varying mix of usage fees, subscription charges, transaction fees, advertising charges, and sales commissions. There will be customized ads, based on customer demographics and on customer transaction data.

These servers will be interconnected through phone and cable in the way that the Internet today links computers and their databases. Together, they form a "distributed" form of television program availability.

This means an extraordinary choice of program options. When given an abundance of choices, how do people react? They seek simplification and convenience. In the U.S., for example, few people go through the trouble of ordering films by pay-per-view. In the future, they will simplify the selection task by "navigators" and personalized menus. In that world,

channels will disappear, or rather become "virtual" channels. This leads to the emergence of an individualized "me channel" ("canal moi", "Kanal Ich") based on a viewer's expressed interest, his past viewing habits, recommendations from critics he trusts, of delegated selection agents, a bit of built-in randomness. This is why the future will not be one of 50, 500 or 5000 channels. Much worse. It will be a future of only one channel, a personalized channel for each individual. The simultaneous mass medium experience will be replaced by individualized experience. This is not narrow-casting. It is custom-casting.

The Internet is a forebringer of this trend. It is now becoming commercialized on its way to a mass medium. To be video capable on a large scale, it needs to expand its capacity and it needs to establish a pricing mechanism. These issues are technical and can be readily resolved. Advanced encryption techniques, digital signatures, and digital cash, can secure transactions, which also protect privacy and anonymity between program providers and recipients.

All this in turn limits the ability of government to control, and leads to the question: what is the government's continuing role? The traditional licensing role of the state becomes virtually impossible. But Governments may be needed to assure some basic interconnectivity of networks, and to support universality. The latter is more of an issue of network reach and affordability than of content affordability. The question of how to prevent the emergence of a class of "information-poor," though often raised, is fairly easy to solve because it makes sense for providers to use differentiated pricing, according to their ability-to-pay, and set above marginal cost which is close to zero. All is needed is a technology that makes arbitrage difficult. Access, on the other hand, is a more difficult issue. Lastly, government may be needed

to assure program supply for educational and children programs if the market fails.

It is obvious that distributed television will open new and creative uses in distributed television. It will be an entirely different medium. Exciting opportunities lie ahead for both commercial and non-profit program providers. The traditional broadcasters--public and private ones--need to recast themselves, and they cannot do so as long as they are still fighting against the second stage of television -- multi-channel TV -- instead of focusing on their real problem. the third stage.

Except for unusual events, the electronic hearth around which entire societies congregated nightly will be no more. But this communal experience of constant information sharing has been only an ephemeral episode in the history of mankind. It clashes with a more individualistic media past and a more information-rich future. It is a system based on scarcity of content production and scarcity of conduits. As these conditions change, the structure of television evolves. In time we shall experience a television of openness, open to the access of new voices—commercial and nonprofit—open across frontiers, and open to viewer choices. It will contain some that is good, much that is bad, and most that is casual.

Most dinosaurs died out millions of years ago, but some of them survived, as birds. They are today's eagles, falcons, and wise owls that soar in the sky. For broadcasters, the challenge is to move from the lumbering age of the was audience to the age of the individualized "me-channel."