

**Zeitschrift:** Medienwissenschaft Schweiz = Science des mass média Suisse  
**Herausgeber:** Schweizerische Gesellschaft für Kommunikations- und Medienwissenschaft  
**Band:** - (1998)  
**Heft:** 1-2

**Artikel:** Television in the digital age  
**Autor:** Bekkers, Wim  
**DOI:** <https://doi.org/10.5169/seals-790821>

### **Nutzungsbedingungen**

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

### **Conditions d'utilisation**

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

### **Terms of use**

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

**Download PDF:** 25.03.2026

**ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>**

# TELEVISION IN THE DIGITAL AGE

*Over the ten past years TV viewing time has significantly risen. Television has experienced a technological progress and is going to pass over the verge into a digital age. More information about the further development of television, TV viewers and their preferences reveals the following article. Surveys show that Television principally is an evening medium which mainly has to satisfy the urge of being entertained and being up to date in news and current affairs.*

## 1. Introduction

One thing is certain. No one knows exactly how television, as we know it today, will develop in the long term. Not even the media industry. Will television set and PC soon be one and the same box, or are we moving towards large numbers of boxes each with its own application? Expert opinions are divided. In the specialist press we read that digital television is going to be the next great leap forward, but at the same time we are also told that the general public hardly understands it, let alone being interested, and certainly has reservations when it comes to having to pay more.

In the Netherlands, KPN Telecom believes in the Internet by television whereas in Japan Sharp and Mitsubishi have now ceased production of Internet TV because sales were below expectations. And yet at the end of 1996 we were being told that having access to the Internet through our TV sets was going to be the most important innovation of the communications age.

In Germany, Bertelsmann – Europe’s largest media group – is closing down all its activities in the field of pay-TV. Instead, they are going the other way and will be investing in Internet TV.

Then there’s the debate about “the switch”: the moment when the final change is made from analogue to digital. There is much speculation as to when this will happen. The industry is hoping that the switch will be both swift and soon, but in the UK the Independent Television Commission believes it will not be possible to withdraw analogue transmissions before 2018 (!), and in Germany, too, earlier forecasts are being adjusted.

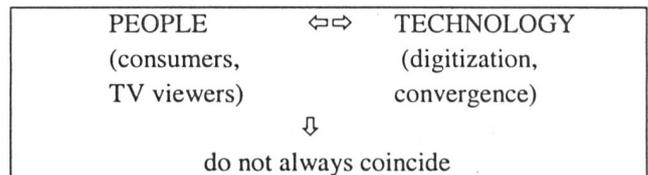
Digital television is going to make it possible to transmit and receive hundreds of channels. But what are they going to show us? What developments do we have to factor into our calculations? We know that digital television is coming, and that compared with what we have at present it offers many more applications. In the first place, of course, this means more channels, interactivity and individual choice such as pay-per-view. For public service broadcasting, of which I am a representative, it is important that we prepare for an age in which the viewer may make new demands and may use television in new ways. The question is, in short, what will the viewer be doing and what should be the response of broadcasters?

I can’t give you any concrete predictions, but an insight into how people use television and the functions television

fulfils today may provide the necessary pointers as to how it will be used in the future. When we think about the future of television I believe it will be useful to approach the subject from the following two angles:

1. Human behaviour and technological thinking do not automatically coincide: consumers do not always react in the ways technologists expect.
2. Experience shows that “today’s” viewer behaviour is the best predictor of “tomorrow’s” behaviour: in other words, how we use television today can tell us something about how we are going to use it in the future.

## 2. Human behaviour and technological thinking



It turns out that there are quite commonly differences between the predictions of what the effects of new technology will be and what actually happens. In his book *Megamistakes: Forecasting and the Myth of Rapid Technological Change*, marketing professor Steven P. Schnaars points to two reasons for the phenomenon that many forecasters overestimate the effect of new technology on consumer behaviour:

- pro-technology bias
- insufficient consumer research

Thus ‘early adopters’ are more interested in the technology itself than in the question of what ordinary people can do with the new products. The success of new technologies depends on its significance to the consumer, not on the technology itself.

Some experts believe, for example, that consumers are not dying to have interactive applications at all: ‘As a novelty it’s fun for a while, but the novelty soon wears off.’

### Examples of failures (in the Netherlands):

video telephone, video disc, pay-per-view by telephone, subscription TV, subscription radio

### Examples of failed TV stations in the Netherlands:

Sport-7, Euro-7, Weather Channel, Country Music Television, NBC Europe

There is another factor that is often forgotten when considering the effect of new technology: time. At the end of 1997, households in the Netherlands had the following television-related products:

Table 1

Video recorder	73% of households
Camcorder	16% “
Teletext	82% “
Remote control	94% “
Cable	95% “
2 <sup>nd</sup> TV set	38% “
PC	52% of individuals

In themselves, these are impressive figures, but it has taken some 20 years for things like video recorders, teletext and remote control to become more or less commonplace.

What is both surprising and at the same time interesting is the relatively limited number of second television sets – but more of that in a moment.

So the introduction of new technology simply takes a long time. American segmentation research shows that in terms of media usage the population can be roughly divided into two. It is the second of these segments that will be particularly difficult to win over to new media. See table 3.

### 3. How do we watch television?

#### Viewing time

Over the past 10 years viewing times have risen from 124 minutes on average per person per day to 155 minutes last year. This year's average per person is expected to reach 164 minutes – a rise of 6%, most of which can be attributed to the World Cup in France.

If we compare this year's 164 minutes with the 124 minutes of 1988 – the last year without commercial television in the Netherlands – the rise is 32%. The fastest increase was in 1991, when average viewing time per person was 140 minutes compared with 120 the previous year. A few minutes have been added every year since then.

On the face of it, a rise of 32% is colossal. However, if we look at the growth in what is on offer, it really looks quite modest. In 1990 we had 4 Dutch stations transmitting for a total of 48 hours a day. Today, in 1998, there are 10 Dutch channels putting out a total of over 170 hours of television every day – a rise in excess of 300%. This does not, let me emphasise, include foreign channels, which have also risen in number.

All in all, then, the conclusion is that viewing times are fairly inelastic – and they are certainly not keeping pace

with the increase in broadcast material. In other words, there is only a limited correlation between demand and supply.

#### Television is principally an evening medium

In 1988 80% of viewing took place in the evening, i.e. after 6 p.m. Since then, there has been an explosion in the amount of daytime broadcasting. This may have led to more viewing during the day – to be precise, from 25 to 42 minutes per day – but watching television continues to be a primarily evening occupation. Last year, 1997, measurements showed that 73% of viewing took place after 6 p.m., a slight fall compared with ten years ago.

#### The most important functions: Entertainment and Information

The broad mass of the public use television mainly for relaxation, in the form of fiction, entertainment and sport, and as a source of up-to-date information in news and current affairs programmes.

However, there are large differences between ages groups: young people spend a great deal of time watching fiction, i.e. series and movies, whereas for their elders the informative side of television is much more important. See table 3.

#### A handful channels dominate viewing behaviour

The average viewer in the Netherlands today can choose between some 25 television channels. Only a handful of these are important, however: over 75% of viewing time is spent watching only 6 channels, all of which are general interest channels. The special interest channels all have tiny market shares. This situation is repeated elsewhere in Europe.

#### Limited influence for video recorder

Table 2

Country	% of households with one or more VCRs (1997)
Switzerland (german speaking)	63%
Austria	69%
Flanders	65%
Netherlands	71%
Denmark	74%
UK	79%
Germany	61%
Italy	60%
Spain	66%

In most western European households there is now at least one video recorder.

Table 3

## Segmentation of US population by media usage

Segment	Media usage	demographics	% of population
Early adopters/techthusiasts	New media buyers/low TV interest	High education/man/high income	5%
Information interest	Print and TV	Male/female 65-35/high education	10%
Entertainment interest	PC for games	Male/female 55-45/young people	20%
Media fans	All media/more TV than PC	Young people	10%
“Wait-and seers”	Partly PC at work/TV viewers	Male/female 55-45/secondary education	15%
Non-users	No PC usage/heavy TVviewers	Male/female 40-60/elderly people	30%
technophobes	Anti new media/TV viewers/print	Elderly and poorly educated	10%

In principle, the video recorder enables people to put together their own individual programme menu to suit their own taste. In other words, individual programme selection independent of the TV stations has actually been possible for some considerable time. In practice, however, we find that most people are not particularly interested in this possibility: the most stable factor in viewing behaviour in the Netherlands is the level of interest in video. For years, we in the Netherlands have been spending only 4% of our viewing time on watching programmes recorded earlier. The situation is much the same in the other countries of Europe.

Table 4

Country	% of viewing time via VCR
Switzerland (German-speaking)	4%
UK	5%
Spain	3%
Denmark	7%

All in all, a fairly paradoxical situation: lots of video recorders, not much recording.

**Limited numbers of second TV-sets**

In the Netherlands there are now more households with a PC than with a second television set. Evidently not much importance is attached to the possibility of household members watching two different programmes at the same time. 6% of all viewing is done on the second set, which means that this limited number of second sets is also only being used to a limited degree. Second sets are used mainly by children, and apart from those used by children, most second sets are in bedrooms, where they are switched on late in the evening after the main set in the living room has been switched off. In most western European countries the number of second sets is limited, though unfortunately we know virtually nothing about how they are used.

Table 5

Country	% of households with 2 <sup>nd</sup> TV-sets
Switzerland	20%
Austria	44%
Flanders	20%
Netherlands	38%
Denmark	39%
UK	58%
Germany	33%
Italy	52%
Spain	59%

**Television as a social medium**

We have already seen that television is principally an evening medium. From analyses conducted in the Netherlands we know that in households of more than one person much viewing is a social activity. Between 6 pm and midnight two or more people watch television for roughly half of all viewing time. The percentage rises above 50% between 7 and 10 pm, and in the case of the most important general interest channels – these are also the most watched channels – the pattern of viewing in two-person households is as follows:

Table 6

Netherlands 1	63%	Netherlands 3	58%
Netherlands 2	54%	RTL4	59%

Unfortunately we have very few international data on television as a social medium. I believe such data are essential for an insight into the future role of television.

**Women: Big soccer fans?!**

The top 40 programmes in terms of numbers of women viewers in 1998 include no fewer than 20 (!) football matches. See table 1. However, opinion research reveals

that only a minority of women are actually interested in football, even though soccer matches are watched by vast numbers of women. Evidently watching football with other household members is preferred to other activities such as watching another programme on another set, alone.

#### 4. Analysis

What can we distil from these diverse television research data? In the first place, the pattern of viewing reveals that television is largely an evening medium. In most households people only watch one set – often together – in the living room. Watching television is not an activity that people prefer to engage in on their own, a fact which is borne out by the limited number of second sets. The fact that women frequently watch football matches indicates that watching television together often take precedence over individual programme preference. Most viewers prefer the mix of programmes put together by the TV channels. Surveys show that most people have a preference for entertainment and current affairs ('what's going on in the world?'). In practice, using the video to put together an individual selection of programmes independently of the television stations' own schedules is very rare indeed. The video recorder could have brought about a radical change in people's viewing habits, but it hasn't. On the contrary, when we look closely we find that video usage has remained fairly marginal. Indeed, many programmes that people **record** are never actually **watched**.

What all this means is that, for most people, watching television is a form of leisure activity for which they would prefer not to have to make too much of an effort. The programme choices of the mass audience show that, on the contrary, people appreciate someone else (the station) putting the evening's schedule together. This means that stations which make the most use of the most important functions of television and offer a mix of entertainment and information are at an advantage. With all the hype about interactive television it is easy to lose sight of the fact that most people use television chiefly for one-way entertainment after the daily grind.

#### 5. Does the decoder hold the future?

For public service broadcasters wishing to expand and at the same time keep up with social and technological innovation, serious consideration of the application of the possibilities which the new technology opens up for the public must be a natural and automatic part of corporate policy. To ignore them would not only be a sign of poor management, it would also signal a lack of awareness of their possible effects and uses.

As regards the mass audience, these are probably processes for the longer term. In the short term we need not expect to see revolutionary changes in the chief functions of television or in the way the mass audience

uses the medium.

The video recorder, which might have brought about a radical change in viewing behaviour, has not done so. Decoder applications such as pay-per-view and interactive television call for action on the part of the viewer, as does the computer. So far there is no evidence that the viewer will be inclined to cooperate, and experiments in this area have so far been disappointing. It is one of the features of watching television, as we know it and as we evidently enjoy doing it, that it allows us to do it in an almost wholly passive way.

What are the prospects for new media applications such as pay-per-view in countries like the Netherlands and Germany, with their intensive open television markets? The following obstacles stand in the way of rapid development:

1. The viewer has no wish to be active. Watching television is a form of impulse behaviour: even picking up the telephone to "order" a programme seems to be asking too much.
2. The viewer already has access to a very large range of "free" programmes from the public service networks.
3. The most popular kinds of programmes are accessible on open networks: it is a precondition for the rapid development of pay-per-view that the most popular kinds of programmes are moved from open to closed networks ("behind the decoder").

The *débâcles* with Sport7 in Holland and Sportkanal in Denmark have shown that it is far from easy to carry out such a move: a kind of national fury was unleashed by the proposal to remove national football competition highlights away from the open network and place them "behind the decoder" where they could only be accessed on an additional payment.

All in all, it is still very much a moot point whether for the time being the digital decoder and all the things it makes possible – individual programme selection, interactive television and so on – will have any more far-reaching consequences for viewing habits than the video recorder did before it.

So – do we look into the new technology and take it on board? Yes! Do we expect much of it in the short term? No! Or, as it can be so neatly put in English:

**There is no doubt the future is digital. We just don't know when the future is going to arrive!**

**Dr. Wim Bekkers**, Nederlandse Omroep Stichting, Head of Audience Research, Postbus 26444, NL-1202 JJ Hilversum, e-mail: Wim.Bekkers@nos.nl