

# The Implications of the New Technologies

## **THE PRINCIPAL MEDIA ECONOMIC MODEL WILL BE BASED INCREASINGLY ON ECOMMERCE.**

The spread of the set-top box, with its built-in modem, and the hard-disk video recorder, which makes it easy to avoid commercial advertising, represent a push-pull for television that will erode the value of traditional linear commercials. In order to maintain the value of television's mass audiences to advertisers, TV will be obliged to make use of the interactive possibilities of commercials to extend its model into eCommerce.

## **THE DEMANDS OF ADVERTISERS FOR MORE EFFECTIVE ADVERTISING WILL BRING ECOMMERCE TO ALL MEDIA**

The Web has established that the transactional model works well. Advertising that can only provide image enhancement, and not lead the consumer directly to a purchase, will be seen as having lesser value. But television is still an attractive model for eCommerce because of the perception that TV audiences are more prone to the "impulse buy" than web audiences, whose shopping tends to be more deliberate. Extensive research on the Web may lead to a purchase, but it drives margins down. The ideal buyer, from the manufacturer's point of view, is acting without knowledge of others' prices or quality.

So we will definitely see television ads that allow the consumer to proceed through an interactive process, using only the remote control, to an actual purchase.

Business will change for the carriers as well as for the program providers. Even high-speed connections to the Internet can become a commodity item, so the model will have to continue in the direction of profiting from services, while using the connection as a means to bring large numbers of consumers to the carrier's basket of services.

Both program providers and carriers must continue to try to integrate vertically by allying with one another or buying into the others' business.

## **THE HARD-DISK REECORDER WILL IMPACT ON THE GATEKEEPER ROLE OF MAIN NETWORKS AND CABLE, AND CHANGE ADVERTISING**

Most people felt that both the temptation of set-top box interactivity and the convenience of the hard-disk recorder would result in much more commercial skipping. Some felt that interactivity in commercials would have to be time-limited to avoid overlap into the next commercial's timeslot. Other consequences suggested themselves - would the first commercial in any set sell at a premium? Would total sponsorship - one advertiser per show - be the only viable model?

Of course, if the consumer is equipped with a hard-disk recorder, real-time ceases to mean as much. The viewer could linger on a commercial, use its interactivity fully, and

never miss any program material or even the next commercial - or they could skip all the commercials entirely. In addition, extending the use of the hard disk into data as well as television, could considerably enrich the interactive experience. (See Broadcast.com paragraph in "Show Announcements".)

#### **WHICH IN TURN WILL SPREAD ADVERTISING INTO PROGRAMMING - THE AGE OF THE INFOMERCIAL**

There was a minority opinion that the average consumer enjoys commercials and would not consistently skip them. (see Sessions: "Mass eCommerce: When every TV is Online") But all agreed that commercials would have to be more appealing to the individual consumer, with greater entertainment value, and greater relevance to the consumer's interests (see below).

In response to the viewers' ability to skip separate commercial messages, some felt that advertisers would drive to embed commercials within programming, that is, expand and improve the strategy of product placement, even adding eCommerce elements to it. Click on this car and learn more about it – click on these shoes and buy them. Like this song? Click and it's yours, downloaded to your Diamond Rio MP3 player. Some people felt this was a fanciful notion – others took it very seriously.

#### **WHO CONTROLS TIME? THE TIMEKEEPER IS THE GATEKEEPER.**

This is perhaps the most complex consequence of the hard-disk recorder. **Television, quite literally, sells time – the viewer's time.** Programs are there simply to capture the viewer's attention for a period of time which can then be sold. **If viewers control their own time, this model breaks down.**

**And if the hard-disk recorder can succeed in going out and recording material on its own, then its software – and not time or channel placement – creates good television shelf space. It would become the new gatekeeper to the consumer.** All programming, offered anytime and on any channel, would have equal access to the consumer – unless the company controlling the database of program descriptions skewed the information to give certain programs an advantage. **Some program providers are already in alliance with the hard-disk recorder manufacturers. More will line up.**

#### **MEDIA POWER MAY COME FROM TRADITIONAL GATEKEEPING - LIMITING ACCESS TO SERVICES, I.E. THE WALLED GARDEN OR THE WILD WEB?**

The set-top box, seen without the hard-disk recorder, suggests huge power for the traditional gatekeepers, the cable companies. Many people were concerned that cable would seek to keep uninformed consumers in a walled garden of content and services, where only they or their allies could penetrate.

Others felt that a combination of consumer demand for unfettered web access, regulation and litigation to prevent cable's abuse of its power, and the arrival of set-tops at the retail level would prevent this model from developing fully.

### **BUT POWER WILL ALSO COME FROM USING DEVICES TO GATHER INFORMATION ABOUT CONSUMER BEHAVIOUR. WHO WILL OWN THE DATA?**

Even if the walled garden cannot be created, a huge amount of economic power will accrue to the company that owns the information that these devices can supply about what the consumer is watching, and what the consumer is buying.

The set-top box can track both of these behaviours quite easily, and the TiVo hard-disk recorder, with its thumbs-up and thumbs-down buttons, can go a step farther, since for it to work effectively, it must know the user's television preferences.

This information is worth a lot of money. Advertisers, seeking to make their ads more effective, benefit enormously from knowing who is already interested in their product, what they are watching, and what they are buying. TiVo was quite clear about their intention to use this information – with the viewer's permission, in an "anonymous" way. If approached carefully – "If you let me sell this info, you won't get so many annoying ads, just the ones for products you're interested in. Oh, and did I mention the discount club?" – many people would permit the use of their information.

### **CONNECTIVITY: AS WE INCREASE OUR ABILITY TO GATHER INFORMATION FROM THE WORLD, IT INCREASES ITS ABILITY TO GATHER INFORMATION FROM US**

Data is a two-way street.

Not only can the set-top box and the hard disk recorder tell the world what we are doing, but potentially our home network and even our car. The GPS device that tells us where we are can also tell others where we are. In some cases, we will want it to – in emergencies when we are helpless, for example.

Even the automated "maintenance alert" programs mentioned above have this possibility. Your spouse is away at a convention in Chicago and you receive this email, "Dear Pontiac Owner: your car needs an oil change. Here are the nearest service stations in the greater Miami area."

The individual privacy concern is not so much with hackers breaking into your devices to steal your information as it is with the authorized use of your information. Can a loan agreement permit credit bureaus to access all your transactional information? How far will this be pushed in both the media and transactional worlds? The more devices we have gathering information, the more information we provide about our own behaviour.

## **CONNECTIVITY CHANGES THE MEDIA MODEL IN ORDER TO REACH DISPERSED DEVICES**

Even in the analog world, we know that the form factor of media devices affects the content provided for them, and their uses. Linear storytelling has gravitated toward the richest media experiences – the television set and the movie theatre, which are large stationary devices.

Information and companionship media functions have gravitated toward the small portable devices, radio and print.

## **CONNECTIVITY WILL DRIVE INFORMATION TOWARD A THINNER, MORE SCALABLE EXPERIENCE**

In a world of dispersed and various devices, the media model for information will have to be scalable. That is, the digital media information stream of an information provider will have to be able to cope with small 3x16 character LCD screens, small graphic screens, colour 720 line 16x9 car screens, and full-sized HD sets. They will have to cope with thin cell connections, home networks with various bandwidth rates, and high-speed modems.

This argues not only a new technical infrastructure to the information stream, but a new approach to content, unlike the linear television style or even the hyperlinked Web style. The closest analogy may be the old pyramid style of newspaper writing, in which the story was written with the most important information first, and information of declining importance in succeeding paragraphs, so that the editor could adjust the size of the story by lopping more off the bottom.

## **HD WILL DRIVE STORYTELLING TOWARD A RICHER EXPERIENCE**

At the other end, history would seem to teach that we will go for the richest experience we can afford, given a minimum convenience factor, for entertainment programming – high-definition. This also will have consequences for the content. That is, certain kinds of content that do not work well on television now will work better on high-definition.

## **WILL DIGITAL TELEVISION BE HIGH-DEF OR HIGH-DATA?**

This is a common question, but probably the wrong one, since it does not appear that either will dominate, and to some extent the two will mix. High-data, that is, a highly interactive media experience, is compelling for information-seeking activity; but high-def will be more compelling for storytelling.

It does seem likely, based on current trends, that the dominance of passive media activity in this century will be eroded by a new generation that has grown up with web-surfing. Hours spent watching TV and listening to radio will be transferred to more interactive activity. But high def, and the convenience of the hard-disk recorder, could also give new life to the passive media experience, so the erosion may not be as severe as some would predict.

Connectivity will also have its impact in extending some trends. More screens in the house, connected to a large supply of television and to the Web over the home network would lead to:

- ◆ More fragmentation of audience
- ◆ Diminishing audience sizes as more services become available and as interactive media activity takes more time away from passive viewing
- ◆ The "family viewing unit" will have disappeared except for certain special events

### **DISPERSED MEDIA FUNCTIONALITY WILL CHANGE TV INFORMATION PROGRAMMING**

While television will not lose its dominance in storytelling, it may change its nature in information programming.

As screens multiply in the house, with access to both passive entertainment and active information media, and

As other mobile devices become able to access information, television may have to move away from the linear, rich-experience mode, and become

- ◆ More interactive, allowing viewers at any screen to dig deeper on a story, as they would on a web news site
- ◆ More scalable, so that viewers on different devices can get at least the basics of the story through data, or data and sound

The real significance of home connectivity may be the spread of high-speed continuous access to the Internet. It is not so much that the Internet will carry video - - although we can expect Internet-delivered content to be a richer media experience, converging with a more interactive television experience. It is more that the Internet's information resources will become usable from small and large appliances throughout the home.

### **DISPERSED MEDIA FUNCTIONALITY WILL ALSO CHANGE RADIO, ESPECIALLY TO MOBILE AUDIENCES**

Radio will not lose its primary roles as a provider of companionship, community connection, and music, but it too may change as an information provider. The primary change will be the migration of survival information – traffic, weather etc. – to data services.

Radio is also the owner of an ideal transmission medium for this kind of data service, since it's both inexpensive and mobile. In the US, data services over RDBS with analog FM will grow. In Canada, digital radio will be the focus.

### **THE CONSUMER / WORKER / CITIZEN PERSPECTIVE: ADOPTION OR BACKLASH?**

As described in the previous section, there are many concerns that are likely to drive adoption of these new technologies, with the consequences discussed above.

- ◆ Security, personal, home, and in the car
- ◆ The need for access to work-related information, anyplace, anytime
- ◆ More convenient media experiences
- ◆ Richer media experiences

At the same time, we can expect some backlash. Many people will not be happy about the amount of information they are surrendering, or the continued erosion of personal and family time as a result of work's invasion of personal and family spaces.

It is useful to remember that even in Canada's fairly saturated market for television distribution, approximately one in five television households - 20% - do not subscribe to cable or DTH services. The "unwired universe" will accompany the "connected" universe into the new age – we will not move in lock step toward universal connectivity.