Basic problem

Programming and interfaces for video-on-demand (VOD) services must be accessible to deaf and blind viewers. At one level, VOD services are merely television programming, which already must be made accessible. At another level, VOD programming is *opt-in*, so it makes sense to add incentives to buy programming; there is no bigger *dis*incentive than "even if I bought it, I couldn't understand it." VOD has the added wrinkle of using visual menu interfaces that also must be made accessible.

Programming accessibility

Pay-per-view services like Viewer's Choice were the earliest networks in Canada to be required to caption essentially everything. The requirement recognized that discretionary services with dollar costs for each program segment must adhere to higher standards than conventional TV. The same applies to a VOD service.

Captioning: All VOD programming must be closed- or open-captioned for deaf and hard-of-hearing viewers. Closed captioning is technically straightforward and generally inexpensive; clips dating from the mid-'80s and later will probably arrive precaptioned, requiring no cost outlay.

Description: Where necessary, programming must have *audio descriptions* for blind and visually-impaired viewers. Also known as video description or descriptive video, A.D. uses a separate narrator who takes advantage of pauses in the dialogue and other appropriate moments to explain whatever is happening onscreen that a viewer could not figure out from the main soundtrack alone. Several broadcasters in Canada and the U.S. are required to air described programming (CBC is not one of them); a few others, including CBC, do so voluntarily on rare occasion. Generally, second audio program (SAP) is the delivery method – a mix of main audio plus descriptions is aired on SAP. At time of writing, there are two description service providers in Canada, charging between \$2,000 and \$5,000 per program hour.

Most VOD programming types require description. Any kind of fictional programming; nature and science documentaries; and, to a lesser extent, concerts and sports all call for description. Newscasts probably do not need to be described; the main access barrier there is onscreen type that is not read out loud. Example: The newscaster says "The government has set up a toll-free number for information on the Red River flood" but does not read that number out loud. All that's needed for blind access to the program is to announce the phone number.

However, in practice, the information exposed in onscreen words but not duplicated in voice is usually not very important. In the medium term, it may be helpful for news editors and newscasters to take greater care to actually read onscreen Chyrons out loud, but for a VOD project the inaccessibility is minimal. Resources should be concentrated on describing other program types. In the long term, CBC could develop ways to add actual audio descriptions to newscasts, a problem no known broadcaster has attempted to solve.

Menu accessibility

VOD viewers will presumably use interactive program guides (IPGs) to browse, select, preview, and buy programming. But IPGs are visual menu systems, meaning blind people can't use them.

Work is already underway to solve the problem. The Access to Convergent Media Project at the WGBH Educational Foundation already has working prototypes of set-top-box menus accessible to blind viewers. Three DVDs (including *The Grinch*) have been produced with audiovisual menus. AOL is known to be testing accessible IPGs. Access techniques are already available. CBC could be the first broadcaster to roll out accessible IPGs.

Cost and pricing

Captioning costs will probably be quite modest; there's more of a sticker shock with description. The dollar cost to caption or describe an hour of programming refers solely to *original* hours; not only do repeats cost nothing, they earn money. Once a program is captioned and described, it remains so forever; each on-demand *viewer* purchase of a captioned/described program incurs no marginal cost for the network. In this way, accessibility costs for VOD programming can be amortized faster than on any other type of broadcast network.

A viable VOD service should be state-of-the-art: Given that captions and descriptions are available on free, over-the-air TV and on cable networks, a VOD service should not provide *less* accessibility than the competition. And as a premium opt-in service, VOD channels should remove every barrier that would prevent a viewer from buying a program.

Captioning and description costs should be built into the programming budget; accessibility should not be viewed as additional or extra. If it were deemed unavoidable, viewer fees could be increased very slightly across the board (say by 25¢ added to each and every program purchase price) to pay for accessibility.