The Future of Broadcasting?

There's no great clamor from ordinary TV viewers for IPTV, although that's not unusual where new inventions and innovations are concerned; no-one can truly appreciate something they haven't yet experienced. But the huge popularity of VOD websites such as Netfix and time-shifting personal video recorders (PVRs) strongly suggest TV will move increasingly away from broadly defined channels and rigid schedules to more narrowly focused, pay-per-view or On Demand programming.

Even so, consumer demand will be the main driving force in the transition from 20th-century broadcast TV to 21st-century IPTV—, traditional telephone companies, faced with competition from cable-based rivals, have had no choice but to redefine themselves as information service providers (ISP), offering Internet connectivity as well as phone services. The more powerful and enterprising among them now see a further business opportunity by redefining themselves so they offer telephone, Internet, and TV services simultaneously. Cable companies already offer all three services in attractive bundles; IPTV makes it possible for telephone providers and broadcasters to join forces and compete. In the longer term, who knows whether people will even regard TV, telephone, and the Internet as separate entities, or whether they will continue to converge and merge?

Delivering IPTV sounds easier than it may prove in practice. The biggest inhibitor at the moment is that too few homes have broadband connections with enough capacity to handle a single high-quality TV stream, never mind several simultaneous streams (if there are several TVs in the same home). Upgrading ordinary broadband connections to **fiber-optic broadband**, so they routinely provide homes with 10–100Mbps, will take time and considerable investment. Until that happens, IPTV providers will not be able to guarantee a "quality of service" (often referred to as **QoS** or sometimes a "quality of experience," QoE) as good as TV delivered through cable, satellite, or across the airwaves. **Latency** (delays in packet arrival) and **packet loss** are problems enough for VoIP (Voice Over Internet Protocol) telephones, and they become much more of an issue when broadcast-quality video is added into the stream. Since IPTV uses compressed video formats such as MPEG2 and MPEG4, packet loss has a much more serious effect than it would have on uncompressed video or audio streams: the higher the compression rate, the bigger the effect every lost packet has on the picture you see.

There is no doubt that , IPTV will take off in exactly the same way as broadband Internet did in the early 2000s: back then, as more people used the Internet, they felt hampered by the limitations of dial-up connectivity, demanded (and showed they were willing to pay for) higher-quality broadband, and provided enough revenue for the telecommunications companies to upgrade their networks. Once viewers start to experience the convenience, control, and interactivity of IPTV, higher bandwidth Internet connections that make it possible seem certain to follow.

This information identifies the need of the Maple Leaf Fiber Optic project. The Maple Leaf Estates Golf and Country Club residents will all benefit from this invest in our Future.