Future Imminent: The Battle For Consumer Loyalty

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hen you step outside your office or home, take a look around. There's a battle going on, and it's not over crime in the streets. The battle is for you—as a consumer—and it's being waged not only for your attention but for your loyalty as well. And even though you haven't heard or seen the gunfire, you're already caught in the crossfire.

Battle Cry

You don't see the combatants? You don't hear the volleys of cannonfire? Well, can you see a telephone pole or satellite dish? Those are the weapons of choice, along with personal computers and cable boxes. In this hellish battle, friends become enemies, and enemies become bedfellows.

When you look at the telephone pole, what do you see? Probably three sets of wires bringing service into your domicile: telephone, electric, and cable. Even though they look different hanging on the pole, all three have the potential to deliver a new set of services that will effect a fundamental shift in our lives over the next few years. See that satellite dish? It can do the same thing. Think not? Stay tuned, as they say. Have to go because your beeper is beeping or your cellular phone is ringing? Stick around and find out how these small caliber weapons may be key to winning the war. In this high-risk stakes game, the winners (yes, there will be more than one) will not only profit, but will become a major influence over the lives of the consumers they serve.

Sound futuristic? Not really. The battle rages over access and egress, for the right to provide consumers with an "on ramp" to the Information Superhighway. It's the battle for the right to put up a toll booth on that access road, collecting from the traffic flowing both ways. But before you drift into some Orwellian nightmare of the future, relax! It's going to be a lot of fun. Sit back, grab your remote control, PC keyboard, or video game joystick, and hang on for the ride. It's going to be a doozy.

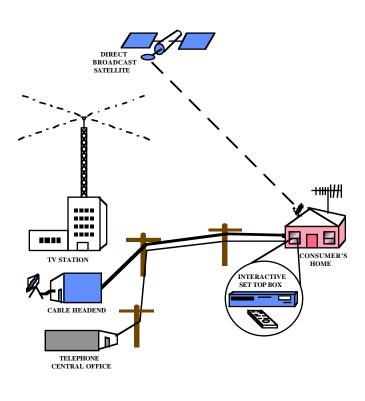
Groove Tube Revisited

In case you haven't figured it out yet, we're talking about *interactive television* and the couch potatoes of the world. The battle is for your household and the brand loyalties that advertisers hold so dear. The right to provide you with instant gratification, which goes far beyond video-on-demand, is the ultimate prize. The delivery system will be fully computerized and digital. But it's not a computer as we know it. It's something that makes your television smart. The interface will be visually oriented, far beyond what computer users are accustomed to, and totally nonthreatening so that everyone will use it. Most of this will come to you as programming you can watch on your television, snug and comfy in whatever lifepod you feel most at home.

The smart money is betting on the TV to become the global campfire of the interactive future. More than ever, it will become the window through which the world is viewed. Television has defined "hot media," the reach-out-and-grab-you approach made popular by MTV and tabloid news magazines. It's the one place where the entire household is on equal footing. Already wired to the max with VCRs, video game machines, and cable boxes, the TV now thunders at you in full high-fidelity stereo surround sound from screens that are larger than life. A state-of-the-art system replicates the experience of being there, whether you are watching a movie or talk show. It is the most effective interface between people and technology to date.

Simple and easy to use, the remote control has become the magic wand that controls the instant gratification stimuli pouring forth from the screen. It's everybody's friend and companion. By giving the viewer the ability to interact with the programs, it transcends the computer multimedia experience based on immediacy alone. Only the movie theater can compete in terms of recreating the total experience. The computer may be the medium of choice for techno-dweebs and control freaks, but the television is there for everyone, delivering the mass market required to fill the coffers of commerce. It's where the people are.

Figure 1 Future Imminent: All Services Lead to Home



Source: Scott Evans

The Real World

More is at stake here than who will supply you with an on-ramp or entertainment. The lines between business, personal, and entertainment services disappear into the zeros and ones of digital technology. What has to disappear for this to become a mass market opportunity is the computer-driven technology. The high-tech gizmo that makes all this happen must be perceived as an easy-to-use appliance, less complicated than a VCR and more fun than traditional TV, if it's to gain universal acceptance. Today, you work at your computer, watch your television for entertainment, beep someone when you need them, and flip open the cellular phone like a gunslinger drawing his six-shooter when the need is verbal. Without you realizing it, your computer followed you home and your television followed you to work. How long before video teleconferencing and broadband access shrink the distance, making home and office one and the same? Many of you are reading this in your home office, so all that's missing is a dose of the magic that makes it work.

It doesn't stop there. As sure as Newton immortalized the apple, Apple returned the favor by inventing the PDA (Personal Digital Assistant). Now BellSouth's Simon[™] says we can have it all together as a cellular phone/digital pager/personal assistant, Sony and AT&T come calling with Magic Link[™], and others are planning to drag you and your "flaptop" computer into the fully-digitized future. The day isn't that far off when the wireless PDA will be your lifeline to home, office, and all things in between. A wealth of new information-based services will compete for your attention and AT&T's "Reach Out And Touch Someone" will come with a virtual reality option. Walk into your home or office, point your PDA at your desktop computer or your interactive cable box, and download the day's work and upload the day's messages. Pick up your e-mail (which will now include voice mail) while on the road, program your VCR while away from home, schedule a meeting, send a fax, or consult with your partner, spouse, or physician about a digital diagnosis. Your most important phone calls will follow you on your universal number provided by your cable or telephone company wherever you go, including on an airplane. Wireless, maybe, but wired to the max.

Evolutionary Chaos

This evolution is imminent, and the time span between invention and availability is shrinking. It took 20 years for digital transmission to speed up from megabits to gigabits. It took 10 years for the personal computer to shrink from desktop to pocket size. It took eight years for local area networks to crawl inside your computer, but only six for video teleconferencing to crawl in there with it-and just three for multimedia to join them. And while these technologies allow you to become more productive at work, improvements in television, VCR, and audio technologies have allowed you to begin time-shifting your personal life. It's the ultimate balancing act between priority and preference. Meanwhile, it took broadcast television 40 years to go from World's Fair exhibition to ubiquitous living color in our homes. Satellite distribution took 10 years to go from backyard monstrosity to mini-dish DSS, giving the phrase "direct to television" a new meaning. The wireless revolution took much less time. Coast-tocoast cellular required all of six years, but the FCC has mandated wireless into service in five-or lose your franchise.

What do all of these have in common? Wires, or the lack thereof. The information that feeds these beasts moves over the wires, even if only to get to a broadcast point so they can travel through the air to get to another wire. And, as AT&T so aptly taught us in the networking game, when you've got 'em by the wires, their hearts and minds will follow.

Wireless offers an alternative delivery system, but the path from idea to implementation is no superhighway. The hurdles between FCC auction bid to buildout to broadcast are many. Winning the bid gets you a license and spectrum allocation, but the prices of the last few auctions have been beyond astronomical. And the role wireless plays varies, depending on who you are, who your partners are, and where the franchise resides.

Wireline, Wireless, Wired Up

The battle is over franchise, mostly wireline. Those are the two key words that define the issue: wireline franchise. Of the two, franchise is most important: franchised operating areas and the right to provide service to the homes and businesses that lie within. Wireline is also important, because it represents presence. It's already there, put there by an entity with the capital to put it there and keep it there. This is not a trivial task, and it is something to be protected.

The (no longer) "baby" Bells, savvy from a decade of fighting erosion of their installed base, have learned

their marketing lessons in the most brutal manner. The cable operators, especially the "top ten" MSOs (Multiple System Operators) who control almost 80% of the cable homes passed in the United States, are defending their turf while extending their reach. And what about AT&T who, with their acquisition of McCaw Cellular, added nationwide access to their fiber-based long-haul network, giving them both access and egress—something no one else has. Sprinkle in more cellular, a smattering of wireless cable, a dash of Direct Satellite Service (DSS), blended with traditional broadcast, and you've got a potentially explosive mix.

If all of these manage to gain a foothold in competing for your interest and loyalty in delivering the future, who gains? Traditional economic theory says it is the consumer who will be wooed with choices. The question is, who can make money at it? How? When? Do the traditional economic models hold up under a barrage of technology, content delivery, and marketing assaults concurrent on all fronts? And, if you decide to play, how do you get from here to there intact? Obviously, the rules of the game have changed. Let's take a brief look at who's doing what to whom, and why. Are they on the road to riches, or are they mining fool's gold?

Riding the RBOC Roller Coaster

The Regional Bell Operating Companies (RBOCs) are moving forward on multiple fronts. For the first time, the regulated and unregulated sides of the business are working in tandem to maximize the opportunity, while minimizing the regulatory backlash and financial risks.

REGULATED REDIRECTIONS

The regulated network side of the business is gearing up a transport operation to deliver wirelinebased services within the franchise area. In order to defend the basic franchise, they intend to leverage the technology already in deployment, especially the fiber loops put in place over the past few years. The beauty of it is that they sell the same access to multiple clients. They call it *video dialtone*, but it's really a digital delivery service flexible enough to deliver anything requiring high bandwidth. After almost a decade of trying to develop data services that would meet their business customers' needs and promising everything from ISDN to fiber optics, this looks like a service that can be deployed as an "overlay" to the existing network. This approach makes sense from the point of view that it utilizes their core businessa digital infrastructure within their operating areas, combined with an upgraded loop delivery system capable of delivering high-bandwidth services along with regular telephony. Meanwhile, at a central location, they build a giant digital selector switch with information providers on one side and subscribers on the other. The subscriber turns the selector to the "channel" they want, and the service flows. This keeps the regulated network out of trouble while they collect fees from parties on both sides of the channel selector. And, for the first time since divestiture, they get to participate in one of their favorite gamescharging themselves (i.e., their unregulated business units) for service delivery.

DIGITAL VIDEO PHONEBOOKS

On the unregulated side, the RBOCs have set up business units which function as information providers and content developers. That's what Stargazer[™] (Bell Atlantic), GO! TV and US Avenue (U S WEST), and the NYNEX/Bell Atlantic/PacBell/Creative Artists alliance are all about: acquiring and developing content. Speculating that it will attract a viewing audience of consumers, this is a key strategic activity because it results in having something to sell in as many markets as can be reached.

CAIN VERSUS ABEL

There has been another significant change to the RBOC approach in the decade since divestiture. The "baby" Bells, once orphaned by their benevolent mother AT&T, have overcome their shyness as they've matured. Where once they clung to each other for support, they now jealously eye each other's markets. Nowhere is this more evident than in cable, where a cable system franchise represents a core business opportunity (wireline) in the other's home operating area. This follows a pattern. The earliest forays into each other's turf was focused on the Yellow Pages, a long time cash cow. The Yellow Pages operations were the first ones to be spun off as unregulated units because they had been profit centers all along. After short but fierce skirmishes, most went home to their own territories. Other areas were explored, including cellular, paging, and (in some ill-advised cases) computer stores. Even consumer goods, such as telephones, were used to try and penetrate new market sectors in an attempt to scale the walls put up around them at divestiture by AT&T.

Why is cable different? Several reasons, all influenced by a set of dynamics never expected in 1983, when the consent decree was finalized. First, and probably foremost, the RBOCs looked to foreign markets as areas of opportunity. They had specific skills that gave them an advantage, especially in Europe where an antiquated infrastructure was in desperate need of replacement. But the nationalistic policies in place prevented them from just using their tremendous financial strength in taking over a market segment. Instead, they found themselves partnering with in-country nationals that needed technical and financial assistance to gain inroads and market position.

Many of these opportunities centered on fiber deployment (a business the RBOCs knew first hand) and wireless communications which were cellular. In countries where the infrastructure was antiquated or nonexistent, deployment of fiber optics and cellular were the methods that proved to be the most feasible. Unfettered by the restrictive policies of divestiture, they could explore new markets and expand their grasp of technology in an environment where risk was minimal. Many of these opportunities centered on cable, especially in the United Kingdom and Asia.

These lessons translated directly into marketable skills at home, and it wouldn't be long before they would be applied. U S WEST took the first step by investing in cable and media giant Time Warner, expecting to be given entré to their new partner's markets and access to its vast catalogue of entertainment products. Next was the engagement of Bell Atlantic and cable behemoth TCI. But conflict of interest and severe culture clash soon separated the expectant couple. Other forays included Southwestern Bell buying the Hauser cable systems in Maryland (an experiment that hasn't gone especially well), and PacBell waving its \$17 billion network construction budget around in an attempt to attract partners with expertise to help them play catch-up. Far and away the most aggressive of the bunch, U S WEST did not rest on the laurels of its Time Warner investment. Hot on the heels of announcing a major "trial" in Omaha, it went out and bought the Wometco cable operations in Atlanta—a move which shook the very foundation of the BellSouth headquarters tower in that fine southern city. The gauntlet has been thrown down. U S WEST and Southwestern Bell, the RBOCs with the fewest major markets, had jumped their boundaries and took the battle to the streets of their siblings' franchised

areas. The basic wireline franchises are now at risk as brother fights brother for market presence.

The Cable Conundrum

This is the area of risk for the RBOCs, and the area of opportunity for cable operators. Always a tenuous venture because of high startup costs and long amortization schedules, most cable operators are mortgaged to the hilt and dependent on high levels of cash flow to service the debt and maintain profitability. Into the midst of this comes the FCC, intent on re-regulating an industry perceived to be gouging its customers. The first pass enacted in 1993 was intended to take 10% off the top and make a purportedly populist administration the good guys to cable subscribers. But cable, an industry used to adversity, reacted by attempting to make lemonade from these lemons by restructuring "basic" service into tiers that would allow them to provide fewer channels at the FCC mandated basic rate. The rest they bundled into new "unregulated" expanded basic tiers and "a la carte" offerings to recoup the revenues and maintain the cash flows demanded by the heavy debt load.

This was most aptly exposed in the now famous TCI internal memo instructing its operations managers to do just that. When leaked to the public, the FCC— and most of Washington—did not take kindly to this perceived attempt at subverting regulation intended to help out the "little guy" at home. The result was a second round of re-regulation that took another 7% off the bottom line, and brought into question the very definition of "unregulated" services which are the key to profitability. That's 17% off the bottom line in less that 12 months.

The result has been to escalate the trend toward consolidation of the cable industry into an avalanche. At the Western Cable Show in Anaheim last December, John Malone (CEO of TCI) half jokingly announced that, by next year's show, there would only be five MSOs. A nervous audience laughed appreciably, but this prediction may not be too far off. Cable operators without the size and deep pockets to weather the combined onslaught of RBOC acquisition and major MSO consolidation seem intent on getting out while the getting is good. The going rate for cable operations is \$1,800 to \$2,200 per subscriber, an astronomical price compared with the original franchise cost. Even industry giants are rethinking their positions. Viacom, for instance, is selling off their cable operations and using the windfall to retire debt taken on to

add Paramount to their already extensive programming and distribution businesses. Yes, the people who convinced us that "I Want My MTV" don't want their cable operations anymore.

Convergence Versus Conveyance

Ignore the noise about a great convergence about to happen. It's going to be more like the "big bang" believed to have created the universe. Worlds are colliding, creating new ones in the process. The worlds of telco and cable reside at opposite ends of the spectrum. The telco orientation is business/ copper/station/computer/information, while cable sees things as residential/coaxial/settop/television/entertainment. Each has a foothold in the other's camp, but neither are taken seriously out of their own domains. The RBOCs have deployed fiber optics, but 80% is in the business district where density and private line services created the early need. Cable is ubiquitous in residential areas, but major gaps exist in business districts where the limited number of potential subscribers could not justify construction. The alternate access dreams of most cable companies could quickly become nightmares when it comes time to close these gaps and compete head-to-head with the local telco for business customers.

Table 1 Operational Orientation		
Telco		Cable
Business	\leftrightarrow	Residential
Copper	\leftrightarrow	Coax
Station	\leftrightarrow	Settop
Computer	\leftrightarrow	Television
Information	\leftrightarrow	Entertainment
Information	\leftrightarrow	Entertainment

Source: Scott Evans

Regardless, each sees the other's domain as key to their future since their existing markets are approaching saturation. The complexities of retrenching and expansion into new worlds are greater than just providing dialtone over cable and movies over the telephone. Service delivery requires more than being able to hang a wire on a pole and keep it there, which is why the power companies are observers at this juncture. In order to cross over into another world, cable and telco must acquire the other's expertise and then implement without recreating the entire infrastructure of the other—including the mistakes.

Winners And Losers

The near-term winners may be the equipment vendors, especially the traditional telephone suppliers of fiber optic and switching gear that see the cable operators as new sheep to shear. The slightly longerterm view centers on acquisition, buying franchise and market share. The early advantage goes to the cable operators, which already control delivery of television to the home. The combined obstacles of technology deployment and regulatory issues may shackle the RBOCs, limiting their ability to play the game early on. This is a race where the first to market with a reasonably featured product can gain dominant market share for a long time to come.

The near-term cable advantage is two fold: they have real-world programming knowledge gained from years of being in the business, and, regardless of how antiquated their operating plant, they have inherently greater bandwidth capacity than the telephone wires sharing the pole. If they can find a way to leverage this advantage to bring a first-generation interactive service to market, the combination of real-world experience and incumbency may give them a longterm win.

Getting To Market

There are companies that see it as their mission to join forces with these combatants. Some are joining the cable ranks, while others side with the telcos. These companies, almost all startups, have created a way to utilize the existing wireline facilities in conjunction with incremental technology that overcomes the infrastructure limitations. The best of them are developing programming especially for delivery through these new delivery systems that will generate revenues for themselves and their partners, the telcos and/or cable operators. This affords a reasonable level of certainty as to how the money will be made. It also changes the dynamics of selection and deployment by creating nontraditional long-term relationships based on profit participation.

Most of these solutions center around a new type of settop box. Part computer, part video controller, part cable converter, it will expand the capabilities of the television far enough so that a broad range of new services can be deployed, including compressed video. The advantage is that deployment and investment can be controlled, allowing the program and merchandising mix to be adjusted as the market reveals itself. The beauty of the settop box approach is that, as long as the basic service does not require it, all new services delivered are unregulated. By positioning the settop as part of a new premium "tier" of service, only subscribers desiring the service are equipped with the unit. This keeps the startup costs incremental and shortens the return-on-investment cycle to something more reasonable than a major technology upgrade. Taking advantage of creative financing options allows the new partners to bank dollars of profit almost from the start. As the new service takes hold, the revenue opportunities grow. The nature of the market can be discovered without re-mortgaging the operating plant. Expenses are minimized, while profit potential is maximized, creating a unique opportunity-pay as you grow.

This approach is gaining widespread acceptance as the battle escalates over who will deliver the services of the future to the home. The low barrier to entry allows service providers to get into the game with a reasonable level of risk. The early time-tomarket aspect increases the advantage of those who move forward. The lower total cost per subscriber makes it appealing from both the operator and subscriber point of view, since the cost of providing the service is within reach. It also offers the greatest longterm potential, recognizing that the need to generate revenue drives every facet of the business.

While all of this may sound too good to be true, given today's high state of flux, it is a reality. The baseline technical trials are proving the technology. While not as "gee whiz" as some would like it to be, it certainly is capable of meeting market expectations. The specialized program content being made available with it is highly complementary with the existing programming, delivering added value in the eyes of the consumer. And, as these things go, everyone has more a chance of "winning" than if they waited for a future that may never arrive.