Before there was a company called Microsoft, before there was an operating system called Windows, even before a genuine PC industry existed, there was The Vision.

And what a magnificent and daring vision it was! It was the stuff of heady wonder and profound business revolution, of vast profits beyond the dreams of avarice, coupled with Schumpeterian gales of creative destruction howling through business sectors as diverse as mainframe computing, traditional retailing, and passive one-way television. It was a dream of a world transformed by a novel doctrine of predictable geometric increases in information processing capacity that we have come to know by the last name of a Silicon Valley icon—Moore’s Law.

It is a vision that has grown with the years and acquired a multiplicity of labels: the Information Superhighway, the 500-channel viewer universe, the telecom, cyberspace—and of course that largely accidental phenomenon that has shaped the infosphere in ways unforeseen by its creators: the mighty Internet.

It is a vision that Microsoft co-founder Paul Allen captured evocatively with the pithy phrase “wired world”:

Before Bill Gates and I started Microsoft, we had the vision of a Wired World in which everyone would have a PC at home and at work that would be interconnected in a global network, providing immediate availability to information and resources anywhere in the world.1

Now, it seems, the wired world vision is at last on the threshold of realization. With the rollout of cable television’s digital tier of services and advanced set-top boxes and the prospect of increasing penetration of cable-based, high-speed modem services like @Home and Time Warner’s Road Runner, we seem to have arrived at the dawn of ubiquitously deployed, interactive broadband communication services.

What will be the key sources of competitive advantage in this new era? How will traditional purveyors of entertainment services like television broadcast networks fare? Is the “killer app” likely to be entertainment-on-demand as originally envisioned by Hollywood moguls? Will the trend toward “category television” niche networks be enhanced by the expansion of channel space on the digital tier? Are informational and communications services (like e-mail and directory and portal services) likely to continue their dominance over commercial entertainment ventures on the Internet? Do new categories of services, such as big-ticket home shopping for items like cars and real estate, stand to benefit from the coming enlargement of cable carriage opportunities? What is the potential for home banking? How about home-based telehealth applications?

What follows is a rough hypothesis of the likely characteristics of competitive advantage on cable’s digital tier. The data on which the hypothesis is based are, by their nature, sketchy and incomplete. However, enough data points are now available from enough diverse sources to make the drafting of a first crude map of this vast, emerging competitive landscape feasible.
Five Challenges Facing the Broadband Communications Industry

A useful initial step is to outline some of the momentous challenges facing the broadband communications industry as it seeks to make an historic transition to an era of digital communications, interactivity, and individual subscriber addressability.

• The first challenge, particularly acute for the debt-ridden cable industry, is to identify a set of new revenue streams that will help finance the rollout of the digital tier and digital set-top boxes, without compromising the long-term income generation capability of digital tier services.

• The second challenge is to locate a group of vertical market partners with sectoral expertise who can help the communications industry meet the first challenge by share-shifting broad categories of consumer spending and business-to-business services into an Internet/interactive broadband environment. An example of such a partnership was the recent TCI/BankAmerica/Intuit/@Home joint venture. Fortune describes it as follows: “BankAmerica is taking an active role in integration and recently teamed up with TCI, Intuit, and @Home Network to offer a range of financial services, including bill delivery and payment via cable modem.” From TCI’s perspective, this deal represents substantial up-front cash paid by BankAmerica on a per-enabled-digital-box basis to help finance the purchase and installation of the boxes. From BankAmerica’s perspective, the deal represents preferential product placement on the “front page” of TCI’s digital tier and a crucial gatekeeper or portal function with respect to the vertical sector of online banking (at least insofar as that sector is accessed through hardware and software supplied by the other partners).

• The third challenge is to cope with mounting political and regulatory pressure to either restrict or dismember market-dominant competitors or to impose onerous new rate controls and service obligations.

• The fourth challenge is to identify and map a realistic pathway toward ubiquitous deployment of unclaimed content categories in a manner that will both optimize the long-term income generation of these categories and simultaneously address the first three challenges listed above.

• The fifth challenge—and perhaps the most daunting—is to think outside the set of organizing paradigms that have historically defined the rules of competitive success in the cable television industry. The task is similar to that faced by the motion picture industry several years ago, which mistakenly feared that video home rentals would cannibalize theatrical revenues. It belatedly realized that such rentals constituted valuable product line extensions of theatrical releases with a revenue potential exceeding that of the box office.

These challenges describe key features of what some business theorists call an evolutionary fitness landscape—an economic environment that will exert Darwinian selection pressures on competitors seeking to master its rigors and to gain competitive advantage over one another.

Rule 1: Ride the Tidal Wave of Category Television

The first rule of competitive success on cable’s forthcoming digital tier is simple and straightforward: ride the tidal wave of category television.

The ongoing shift of audience share from the broadcast networks to cable represents the triumph of category television providers—a growing confederation of powerful niche cable channels that focus intensively on specialized content categories
such as science, sports, history, sci-fi, cooking, etc.

This is clearly the wave of the future—and it spells big trouble for the broadcast networks in the years ahead. It’s one of the reasons that even a successful broadcast enterprise like top-rated NBC is beginning to explore possible alliances with cable networks. (The other reason is that broadcast networks are dependent on a single revenue source—advertising—while cable channels such as ESPN typically claim a share of cable subscriber fees.) As NBC Entertainment President Warren Littlefield told The Wall Street Journal recently, “The traditional network model is not exactly one that people are embracing. For the future, it’s just not going to work.”

To maximize its inherent advantage as the key provider of category television, the cable industry should continue to diversify its portfolio of niche channels. It should avoid the temptation to:

• Over-leverage existing content by overdoing the practice of time-shifting current channels to absorb expanding digital tier shelf space.
• Prevent digital tier revenue “leakage” to independently owned cable networks that may offer excellent content but lack equity affiliation with a particular cable MSO.

Either strategy is shortsighted in that it will tend to weaken the core strength of the digital tier as an aggregator of high-quality niche channels.

Rule 2: Use Category Television as an Internet Portal

The smart money has already figured out that category cable television is the preeminent “push” engine for attracting customers to advanced Internet applications. It’s one of the reasons that Paul Allen and Bill Gates are investing billions in cable plants. It’s also the reason that every cable network is racing to upgrade its Internet presence and brand-link it to televised content.

The new functionalities of digital cable will dramatically enhance the importance of cable’s “push” function vis-à-vis the Internet. For instance, with the rollout of the digital tier and @Home-style services, viewers will be able to use tools like WebTV to transition effortlessly between a passive television environment and an interactive Web environment, without losing the sense of program continuity.

This seamless integration of digital cable and Web content should also permit sophisticated co-branding of combined Internet/television content. This will be critically important in the overcrowded, barrier-free Internet environment.

Finally, if cable companies are able to convince Wall Street of their utility as Internet “push” and branding engines, they may be able to lift their valuations to more closely approximate those of high-flying Internet portal companies.

Rule 3: Focus on Transaction-Rich Content Categories

As important as aggressive and tightly-linked cable television/Internet co-branding is for attracting eyeballs to programming, it is even more crucial in the viciously competitive field of Internet commerce. The Wall Street Journal summarized the daunting challenges facing Internet-based merchants in a recent article:

Most investors seem to believe that the Internet will someday produce unusually rich returns because it is a cheaper way to reach customers, without onerous expenses such as paper recordkeeping, brick-and-mortar shops, and piled-up inventory. Yet, the very things that attract users to the Internet—speed, convenience, and unlimited breadth—make it treacherous for profit-hungry merchants. With just a few keystrokes, consumers can play business rivals against each other.

Either strategy is shortsighted in that it will tend to weaken the core strength of the digital tier as an aggregator of high-quality niche channels.
That ability is turning the Net into a relentlessly efficient market in which vendors will be hard-pressed to win, and defend, any lasting competitive advantage.

If various merchants can’t separate themselves from the pack, they are likely to transform most online markets into low-margin commodity businesses. Price cuts will become the main weapon in a chaotic battle for market share.

Hoping to avoid this profit squeeze, online companies are spending heavily to try to create brand loyalty in cyberspace. They are pumping up ad budgets, developing online communities of what they hope will be loyal customers, and trying to make it hard for newcomers to go anywhere except their site. Optimists hope that Internet branding will give companies the cachet—and pricing power—of a Nike Inc. or a Gillette Co.²

The inherent advantage of cable’s digital tier in the free-for-all e-commerce environment is that a cable network can serve as its own powerful branding engine. It can lead the viewer back and forth between television programs and selected Internet sites while using “other peoples’ money” (i.e., revenues provided by television advertisers and home shopping retailers) to pay for the branding exercise.

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It is important to note that, in the era of category television, it is typically the network, not the particular program or television personality, that is the viewer magnet. Most viewers watch The Weather Channel, CNN, or a regional news network because of the specialized content stream of the particular channel, not because of the attractiveness of the host or the cachet of a particular program. The overall character of the channel itself is what makes it a “dependable viewer destination” in the words of a TCI official, who added, “you cannot over-emphasize the importance of a dependable destination in a 500-channel universe.” (This situation is reversed on a category-diverse broadcast network. There, it is the star or the particular program that is the viewer magnet.)

Accordingly, a niche cable network is able to piggyback its brand-building exercise on the expenditures of its advertisers and product retailers—a crucial competitive advantage not available to an Internet-based competitor lacking a dedicated cable television presence.

The inherent branding advantages enjoyed by digital tier cable channels imply rich rewards for those that dominate content categories offering significant transactional potential.

What are those content categories? Here are a few examples.

- **Home Shopping.** This is the old war-horse of transaction-focused cable television. However, the functionalities of digital cable offer new potential for interactive advertising and comparison-shopping using software similar to Microsoft’s Car Point product. Moreover, there is a real opportunity to move into big-ticket transactions such as home, car, and boat purchases as well as into broad categories of less expensive consumer goods now sold predominantly through physical retailing.

- **Financial Services.** The BankAmerica/TCI partnership demonstrates that the financial service community has begun to recognize the rich transactional opportunities that could flow from aggressive exploitation of the digital tier for home banking, comparison shopping for financial products and services, etc. This path-breaking deal may be only the “first pickle out of a jar” in the words of a leading cable executive, implying that similar sectoral partnerships could be in the offing.

- **Health.** Dr. John Malone, the CEO of TCI, indicated orally at the TCI Investor Conference on March 26, 1998, that the potential for interactive advertising in the
health sector on the digital tier “is huge.” So, too, is the potential for other advanced telehealth services that make use of the unique capabilities of the digital tier.3

Rule 4: Think and Act With Political Savvy

Political and regulatory pressures will heavily influence the magnitude of the opportunity space created by deployment of the digital tier. This means that politics will be a critical feature of the competitive landscape and that political competence will be a crucial source of competitive advantage.

As Wall Street guru Peter Lynch wrote in 1994 with reference to the competitive advantages of various combatants in the telecom regulatory battles:

The future of the Bells and the CAPs, and everybody else in the phone business for that matter, depends to a large degree on the whims of regulators, the politicians, the courts, and the deal makers on Wall Street.

Wall Street is betting that the Bells will be the losers in the legislation coming out of Congress, but they have a lot of moxie and a lot of clout in Washington. Clout doesn’t show up anywhere on a balance sheet, but in a regulated industry, it’s the most valuable asset of all.4

Failure to anticipate and adequately shape the regulatory environment proved fatal to the proposed TCI/Bell Atlantic merger. On the other hand, superior government relations capacity has been a profoundly important, though generally overlooked, source of competitive advantage for a number of highly successful companies and industries operating in challenging regulatory and political environments.

The new functionalities of cable’s basic tier offer unique opportunities to appropriately and ethically build a powerful grassroots political base that can help sustain the industry through the regulatory tribulations that will inevitably materialize in the years ahead.

Rule 5: Take the Principle of Share-Shift to the Next Level

The early strategic thinking about financing the rollout of television-on-demand focused on the principle of market share-shift—identifying consumer expenditures for a particular category of services like home video rentals and then figuring out how to shift them into the target category (popular movies delivered over cable).

The new capabilities of the digital tier offer opportunities to apply the strategic principle of share-shift in a more profound and comprehensive manner. Why? Because virtually every significant business sector—health care, tourism, real estate, energy, and transportation, among many others—is in the process of transforming itself into an information-driven sector. The potential exists to “trade” highly specialized and mass-customized video/Internet content for traditionally delivered goods and services at favorable price-value ratios. However, the critical information pathways, which link particular vertical sectors to their key consumers, must be mapped with sufficient precision and then subsumed within current or future content categories of the digital tier. Here are a few examples of how such strategic share-shifting might work:

- Inexpensive, high-quality videoconferencing could be traded on a routine basis for expensive business travel.
- Mass-customized consumer health counseling delivered via the Internet and digital tier cable could be traded for routine health consultations at clinics.
- Sophisticated two-way video services and remote medical monitoring devices connected via cable modem to central nursing stations could dramatically enhance the care capabilities of assisted living centers, postponing the onset of
expensive nursing home care for an aging population.
• Specialized digital tier programming could facilitate informed consumer selection of a competitive electricity provider, furthering the policy goals of utility deregulation and introducing market discipline into a notoriously inefficient business sector.
• Specialized content modules could facilitate video shopping for homes and automobiles, share-shifting commissions currently paid to sales intermediaries in these massive economic sectors.

Rule 6: Cultivate the Skill of Sectoral Partnering as a Core Competence

At a recent conference, TCI President Leo Hindery made two points, which underscore the inherent competitive advantages of cable companies offering digital tier service over telcos offering DSL service:

• The cable-based media industry has inherent synergies (like cost-free branding and content repurposing) which are enjoyed by no other industry.
• DSL installation costs cannot be offset by up-front placement payments similar to those that will flow from BankAmerica to TCI to help finance the rollout of the digital tier.

In order to optimize such inherent advantages, the digital cable industry must develop a new core competence: consume-mate skill at sectoral partnering.

If it can accomplish this daunting task, then the cable industry’s future will be bright indeed in the brave new world of the digital tier.

If it cannot, there are a couple of well-endowed fellows named Bill Gates and Paul Allen waiting anxiously to implement their old dream of a wired world.