Reflections and Directions:

Twenty Years After The Divestiture Of AT&T

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New Millennium Research Council

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Preface

This report is a project of the New Millennium Research Council (NMRC), established in 1999 to foster policy research focused on developing workable, real-world solutions to the issues facing policymakers primarily in the fields of telecommunications and technology. The Council consists of independent academics and researchers who are experts in their fields. Both seated experts and invited scholars author NMRC reports.

During the past year, the NMRC has investigated a range of issues related to competition in the telecommunications industry. The NMRC has also sponsored a number of roundtable events in Washington, D.C., and legislative briefings on various topics.[1]

In this report, the NMRC continues to explore telecommunications policy topics by providing a compendium of papers from noted telecommunications experts and academics reflecting on the upcoming 20th anniversary of the divestiture of AT&T. Twenty years ago, a federal court judge ended AT&T's monopoly on U.S. phone service ushering in a new telecommunications marketplace.

The NMRC invited a number of noted telecommunications experts to reflect on this milestone date, offer 'lessons learned' and consider implications for present day telecommunications policy.

The NMRC wishes to thank the authors for their time and insight on this watershed moment in telecommunications history.

December 2003

[1] See our website at www.newmillenniumresearch.org for copies of reports and transcripts of prior events.

Author Biographies

Samuel A. Simon is President and Founder of Issue Dynamics, Inc., a public affairs firm representing local phone, wireless and technology companies, Chairman of the Telecommunications Research and Action Center, and the Chair of the 103-year-old National Consumers League. Mr. Simon was a former Ralph Nader staff attorney who served as the leading consumer voice in the AT&T divestiture process. The views set out here are his own and not that of any organization with which he is affiliated.

Henry Geller is a former Federal Communications Commission general counsel who has continued to work on Commission issues as a private citizen. In recent years he has served as a communications fellow with the Markle Foundation, as a senior fellow with the Annenberg Washington Program, and, before that, as director of Duke University's Washington Center for Public Policy Research, 1982-89. He lawyered for the FCC for many years, rising to general counsel in 1964-70, and later served as head of the National Telecommunications and Information Administration, 1978-81.

Joshua L. Mindel is Assistant Professor, College of Business, San Francisco State University. He has a Doctor of Philosophy in Engineering & Public Policy – Telecommunications from Carnegie Mellon University. Joshua has also worked for UNICEF, the MITRE Corporation, Virginia Polytechnic University and Open Networks, Inc. He has written extensively on a variety of telecommunications topics.

Richard P. Adler is Principal of People & Technology, a research and consulting firm in Cupertino, California. Mr. Adler was formerly Vice President for Development for SeniorNet, where he was responsible for pioneering research on the use of computers by older Americans. He has taught communications at Stanford and UCLA and been a research fellow at the Harvard Graduate School of Education. His publications include *The Age Wave Meets the Technology Wave: Broadband and Older Americans.*

Executive Summary

Few things in recent memory have changed as rapidly and as dramatically, and have influenced as many people around the globe, as the telecommunications marketplace. To many, it was not such a long time ago that we had one-style (black) fixed rotary phones in our homes. Before the advent of modern day communications technology, and the array of communications providers, we also had but *one* provider of phone service—Ma Bell or AT&T. On January 1, 1984 a federal court judge forever changed the communications landscape by breaking up this monopolistic service.

To remember and examine the implications of this historic anniversary, the New Millennium Research Council (NMRC) invited a number of telecommunications experts and scholars, several of whom commented on the divestiture process in 1983, to present their views of this historic decision. While the report authors offer different views on a number of points, they concur on a vast majority of conclusions:

- In 1984, few could have envisaged the communications marketplace that we have today.
- Consumers have experienced a 'rocky road', but now have a plethora of options available on how to communicate.
- The Internet is viewed as an amazingly devise connecting people in ways that were never dreamed of in 1984.
- The breakup of AT&T and related telecom policy is seen as having both positive and negative consequences—later developments such as the Telecom Act of 1996 and associated regulations are not rated as having served the telecom sector or consumers especially well.
- A dynamic telecom industry will always be one step ahead of legislators and regulators—consequently, they should focus on setting broad national policy.
- Heightened competition and a deregulated environment are prerequisites to a healthy and prosperous telecommunications industry.

Twenty Years Later, We Are Better Off In Spite of Laws and Regulations

Mr. **Richard P. Adler**, Principal, People and Technology agrees, writing, "While the break up of AT&T has had a real impact, it is the combination of this event with the continuing evolution of technology that has fundamentally reshaped the telecommunications landscape. In particular, the emergence of the Internet, along with the shift from analog to digital media on many fronts, that has changed the competitive environment and led to the introduction of new types of services."

As **Samuel A. Simon**, President of Issue Dynamics, Inc., Chairman of the Telecommunications Research and Action Center, and Chair, National Consumers League writes, "Looking back, it now seems to me that divestiture of AT&T got it wrong. We broke up the telephone company into the wrong parts – with one part consisting of local service and the other part comprised of long distance/equipment. The reality is that the court-ordered division isn't holding. Relentless and inexorable market and consumer forces, with the reluctant concurrence of the Government, have spent 20 years re-aligning the AT&T break-up into a number of fully integrated national competitors."

Mr. **Joshua L. Mindel**, Assistant Professor, College of Business, San Francisco State University writes, "The primary tenets of the divestiture…certainly helped facilitate the competitive long-distance/long-haul markets that exist today. However, had Rip Van Winkle been keenly interested in communications *and* fallen into his 20 year slumber at that point, he would surely be startled at the state of the (communications) world today."

Mr. **Henry Geller**, former General Counsel to the Federal Communications Commission notes, "As to benefits to residential consumers, they have received great benefits from wireless competition and cable provision of the broadband modem, and more limited benefits in the telecom field because of the above mess. The greatest benefit of all has been the Internet, and what it has contributed to commerce, information and education."

Partial Competition and Unequal Regulation Requires Reappraisal

Mr. **Henry Geller**, notes, "The 1984 "big bang" -- divestiture of the local Bell operating companies from the rest of AT&T -- was designed to promote full and effective long distance competition…This elegant economic theory has been shown to be unsound. The distinction between local and long distance is rapidly eroding…With no certainly, investment in infrastructure is discouraged. There is asymmetric regulation of cable and telecom in the broadband field, which cannot be justified since both are starting from zero…".

Mr. **Samuel A. Simon** notes, "The evolutionary changes that are taking place today in telecommunications are many times more dramatic than the changes that were forced from outside on the telephone system a score of years ago. Consumers now benefit from a plethora of options on how to communicate, technology is exploding, and the biggest changes seem yet to be ahead of us."

Mr. **Joshua L. Mindel notes, "**To this market observer, the six most important changes, paradigm shifts, and emergent issues since divestiture are: 1) Rise of the Internet and the concomitant demand for high-speed residential broadband; 2) Proliferation of mobile wireless devices; 3) Reversal in relative costs of communications vs. computing; 4) Emergence of the digital divide; 5) Potential treatment of communications services as standardized commodities; and finally 6) Passage of new and significantly flawed telecommunications legislation."

Lessons for Policy Makers

Samuel A. Simon notes, "There always will need to be appropriate Government oversight of what is a national strategic asset – the telecommunications infrastructure. However, if there is a lesson of the last 20 years, it is that the Government should get out of the business of micro-management of telecommunications. Legislators and regulators should content themselves to set broad national policies that encourage investment and deployment of new services and then keep a watchful eye out for possible abuses. I now believe that we would have seen some of the most powerful technologies of the last 20 years – such as wireless and high-speed broadband – emerge even faster if the market had been calling the shots instead of regulators and lawmakers protecting special interests."

Mr. **Henry Geller** notes, "In conclusion, this area can be represented by a three-legged stool -- a dynamic technology, a dynamic responding market, and governmental policy that is also dynamic…In the telecom sector, we are still witnessing flawed, uncertain policy and the resort to the courts. However, the technology and market are so dynamic and powerful that in the near future they will overwhelm the befuddled government policy."

Mr. **Joshua L. Mindel** writes, "…many telecommunications policy analysts would agree that the current legislative framework in the U.S. still does not serve the telecommunications sector well. It relies on historical market structure and technological traits, wherein it should be based upon service and current market definitions. Short of a complete rewrite of the telecommunications legislation, the Federal Communications Commission (FCC) will need to struggle with regulatory boundaries that separate *telecommunications services* from *information services*."

20 Years Later: Did The AT&T Divestiture Fail?

Samuel A. Simon[2]
President, Issue Dynamics, Inc.
Chairman, Telecommunications Research and Action Center
Chair, National Consumers League

Consumers under the age of 50 may find it impossible to imagine a world where a single telecommunications company could exercise a near total stranglehold on all phone-related services. It is precisely for this reason that Americans should take the time to reflect on the good and the bad that has emerged in the 20 years since a federal court judged flipped the switch that resulted in the January 1, 1984 breakup of the AT&T monopoly on U.S. phone service. On this 20th anniversary date, lawmakers, industry officials and consumers should pause to ask: Am I better off in the telecommunications marketplace today than I was then? What if the break-up hadn't taken place? Was it the right thing to do? Could it have been done better or differently?

Looking back, it now seems to me that divestiture of AT&T got it wrong. We broke up the telephone company into the wrong parts – with one part consisting of local service and the other part comprised of long distance/equipment. The reality is that the court-ordered division isn't holding. Relentless and inexorable market and consumer forces, with the reluctant concurrence of the Government, have spent 20 years re-aligning the AT&T break-up into a number of fully integrated national competitors. While we aren't quite there yet, the day will soon arrive when a new crop of giant companies will have the economic clout to launch and maintain national and international communication systems with state-of-the-art technology available to all people.

It is not revisionist history to suggest that AT&T breakup failed in its key aims. The truth of the matter is that those of us who worked and advocated on the breakup of AT&T had no clue what would happen afterwards. We certainly did not have a crystal ball at our disposal revealing an impending digital revolution that would change everything in the communications marketplace.

Instead, we focused a great deal of our time on issues such as how consumers – all of whom were still renting their phones – would be credited if the phones went to AT&T and not the local phone companies! At that time, the little-known "personal computer" was owned by a few thousands -- not many millions – of American. Most "on line" communication was conducted at the glacial pace of 300 baud – unless you were wealthy and could afford a scorching-fast 1200 baud modem!

The evolutionary changes that are taking place today in telecommunications are many times more dramatic than the changes that were forced from outside on the telephone system a score of years ago. Consumers now benefit from a plethora of options on how to communicate, technology is exploding, and the biggest changes seem yet to be ahead of us. As a result, the telecommunications world of 2004 bears almost no resemblance to the virtual "stone age" of 1984. Consumers today don't choose a "provider" – they decide how they want to communicate. E-mail,

[2] The views set out here are his own and not that of any organization with which he is affiliated.

voice mail, Internet, wireless, wireline, cable modem or instant message (IM). Or they just go down to Starbucks, tap into the wi-fi and IM while sipping a Peppermint Mocha.

This is not to suggest that no good came from the AT&T divestiture. While it is true that the last two decades have been a rocky road for telecommunications services and consumers, the good news is that once widespread fears of skyrocketing local rates never materialized. (AT&T's then Chairman Charles Brown once was quoted as saying – or threatening – that local rates would double or triple as a result of the divestiture.) In most states, local rates were stabilized by proceedings that set caps for pricing purposes. Long distance rates plummeted after a time, especially when the Federal Communications Commission agrees to shift costs from the long distance companies (access charges) to the consumer (subscriber line charges).

But what if the courts had not broken up AT&T? Another American corporate colossus, IBM, also was sued at about the same time by the Department of Justice. Having read Mr. Gerstner's best selling book, *Who Says Elephants Can't Dance?*, about the near demise of IBM, I tend to believe that IBM was better off changing through market forces, rather than the convoluted process that telecommunications went through during two decades worth of regulatory and legislative wars.

In the final analysis, it probably really didn't matter what the U.S. government and the courts did to AT&T. Despite all the rules and laws strewn as obstacles in its path, the telecommunications market ended up largely blazing its own trail over the last 20 years. That outcome may have been as inevitable as it was unforeseeable back in 1984. Ithiel De Sola Pool attributes this phenomenon to what he calls "Technologies of Freedom" -- because these technologies empower people by facilitating communications in ways that are virtually impossible to stop or even just control.

There are of course valid concerns about concentration of control of the media old and new. There always will need to be appropriate Government oversight of what is a national strategic asset – the telecommunications infrastructure. However, if there is a lesson of the last 20 years, it is that the Government should get out of the business of micro-management of telecommunications. Legislators and regulators should content themselves to set broad national policies that encourage investment and deployment of new services and then keep a watchful eye out for possible abuses. I now believe that we would have seen some of the most powerful technologies of the last 20 years – such as wireless and high-speed broadband – emerge even faster if the market had been calling the shots instead of regulators and lawmakers protecting special interests. Here's hoping that we learn the lessons of the last 20 years and put them to work in the next two decades!

The 1984 ' Big Bang'

Henry Geller
Telecommunications Attorney and Law Professor
Former General Counsel to the Federal Communications Commission

The 1984 "big bang" -- divestiture of the local Bell operating companies from the rest of AT&T -- was designed to promote full and effective long distance competition. The Department of Justice (DoJ) stated that it had separated the workably competitive from the naturally monopolistic. This elegant economic theory has been shown to be unsound. The distinction between local and long distance is rapidly eroding. Telecom companies, including the Bells, now offer both services and often do so by following the wireless pattern -- use of minutes allocated for local or long distance, and in the future for either.

The 1996 Telecom Act was intended to promote vigorous competition between all segments of the telecom industry. Cable was deregulated as to prices it charged (an action still deplored by some public interest groups) and has made very substantial investment in digital broadband infrastructure; it is offering significant competition to the ILECs (incumbent local exchange carriers like the Bells) and is just turning to the use of the Internet (Voice over Internet Protocol -- VoIP). With the cable modem, it initiated broadband carriage of the Internet, and is outpacing the telecom companies (DSL) about three to one. Wireless also is deregulated, is growing at a very rapid pace, and while the situation is not as pervasive as in some European countries, is beginning to compete with, and replace, the wireline operation.

The problem with the 1996 Act lay with its treatment of the Bells. They were not deregulated but rather subjected to more regulation, with provisions that, as noted by several courts, were atrociously drafted. The idea was to make all elements of their networks available to newcomers (called CLECs -- competitive local exchange carriers), who could then make connections to customers, and gradually build out their own facilities. As implemented, this made available not just the local loop (an obviously desirable action) but the whole network -- a form of resale called UNE-P (unbundled network access platform), at an artificial price fixed by the government (called TELRIC -- total element long range incremental cost), that was often designed to give a discount of 40 to 45% off the retail price. This is government cartel management. CLECs like AT&T and MCI can compete locally with no investment in facilities and no incentive to do so. Further, it made no sense since AT&T and others could readily acquire switches and thus could provide intelligent network services -- why then make the whole platform available? The result of this mess has been round after round of litigation, which persists to this day. With no certainly, investment in infrastructure is discouraged. There is asymmetric regulation of cable and telecom in the broadband field, which cannot be justified since both are starting from zero in this respect.

As to benefits to residential consumers, they have received great benefits from wireless competition and cable provision of the broadband modem, and more limited benefits in the telecom field because of the above mess. The greatest benefit of all has been the Internet, and what it has contributed to commerce, information and education. The Internet does pose problems as to copyright protection, and impact on the universal service scheme (e.g., subsidies to the poor or

rural areas). To further the public interest, Universal Service could be replaced by direct and targeted subsidies; today the policy affords subsidies to all rural areas, including the wealthy in ski resorts.

In conclusion, this area can be represented by a three-legged stool -- a dynamic technology, a dynamic responding market, and governmental policy that is also dynamic and accommodates the other two factors. When the latter does so, the industries fight it out in the market rather than with lawyers before the agency or in the courts. In the telecom sector, we are still witnessing flawed, uncertain policy and the resort to the courts. However, the technology and market are so dynamic and powerful that in the near future they will overwhelm the befuddled government policy.

Changes, Shifts, and Issues Since Divestiture

Joshua L. Mindel
Assistant Professor, College of Business, San Francisco State University

At the stroke of midnight on December 31, 1983, the transfer of assets from AT&T to the seven newly established regional bell operating companies (RBOCs) was completed. Divestiture was complete. The primary tenets of the divestiture (i.e. split of the long distance market from the local market, and requirement that RBOCs provide equal access to all interexchange carriers at nondiscriminatory pricing) certainly helped facilitate the competitive long-distance / long-haul markets that exist today. However, had Rip Van Winkle been keenly interested in communications *and* fallen into his 20 year slumber at that point, he would surely be startled at the state of the (communications) world today.

Who recalls an important paradigm shift widely believed in 1983 that never came to pass? Part of the Department of Justice's "theory of divestiture" was that AT&T would become IBM's main competitor in computer markets" and that "IBM would become a major telecom competitor".[3] This argument also contributed to the DoJ's decision to abandon its 13-year-old antitrust suit against IBM. Needless to say, neither IBM nor AT&T has had any long-lasting impact on the competitive evolution of the other's industry.

To this market observer, the six most important changes, paradigm shifts, and emergent issues since divestiture are: 1) Rise of the Internet and the concomitant demand for high-speed residential broadband; 2) Proliferation of mobile wireless devices; 3) Reversal in relative costs of communications vs. computing; 4) Emergence of the digital divide; 5) Potential treatment of communications services as standardized commodities; and finally 6) Passage of new and significantly flawed telecommunications legislation.

The Internet certainly existed prior to divestiture, but exponential growth from 1000 hosts in 1984 to over 200 million hosts in 2002 has unquestionably altered the communications world. The concomitant demand for residential broadband has grown from being virtually nonexistent in 1983 to penetration in over 40% of homes by November 2003.[4] And don't forget that the volume of data traffic eclipsed voice traffic for the first time just a few years ago. The proliferation of mobile wireless represents a shift in both communications technologies and consumer communications patterns; e.g. cell phones (92,000 in 1983 to more than 154 million today), laptop computers with Wi-Fi, two-way pagers, Blackberry Email devices. This proliferation is not uniform, however, as pointed out by a recent study by San Francisco-based Telphia that showed lower wireless penetration in larger markets (e.g. New York, Chicago, Los Angeles) due to large and diverse populations.[5]

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[3] *See* §7.2 (Unpredictable Markets) *in Federal Telecommunications Law*, Second Edition, by P. Huber, M. Kellogg, and J. Thorne. Aspen Law & Business, 1999.
[4] *See* http://www.websiteoptimization.com/bw/0311/ ; last accessed on December 22, 2003.
[5] *See* http://www.bizjournals.com/stlouis/stories/2003/11/24/daily22.html; last accessed on December 22, 2003.

The abundance of relatively inexpensive bandwidth that brought about a reversal in the relative costs of computing vs. communications has had a profound impact on computing and information systems architectures; e.g. re-emergence of centralized computing in the form of computing utilities. The ability to handle communications services as standardized commodities (e.g. voice minutes trading at Arbinet-thexchange) reflects a paradigm shift in operational flexibility, and potentially for other forms of risk management as well.[6] The emergence of the digital divide is a simmering social issue that rivals the importance of 20th century concerns over landline telephone penetration and rural electrification.

The passage of the Telecom Act of 1996 heralded the end of the divestiture era by pushing for competition in the local access market. However, many telecommunications policy analysts would agree that the current legislative framework in the U.S. still does not serve the telecommunications sector well. It relies on historical market structure and technological traits, wherein it should be based upon service and current market definitions. Short of a complete rewrite of the telecommunications legislation, the Federal Communications Commission (FCC) will need to struggle with regulatory boundaries that separate *telecommunications services* from *information services*. For example, how will the increasing deployment of Voice-over-IP (VoIP) co-exist with the existing regulatory structure when many providers of such VoIP services do not have the regulatory obligations of telecommunications carriers? [7] Likewise, the FCC is struggling with the most workable regulatory treatment of DSL and Cable Modem services. The European Union has managed to rewrite their telecommunications legislation to coherently address telecommunications markets in a manner that focuses on services and market definitions. Policy analysts have evaluated the EU model for potential relevance in US markets,[8] as well suggested layered regulatory frameworks to replace the existing, title-based US telecommunications legislation.[9]

[6] The controversial arguments for/against spot and futures markets for point-to-point, intercity communications service have largely been shunted aside by more pressing issues in the telecom sector. *See* Chapter 8 in Spot and Futures Markets for a Telecommunications Commodity in a Ph.D. dissertation by J. Mindel. Carnegie Mellon University, 2003.

[7] *See* "Regulatory Treatment of IP Transport and Services" by J. Mindel and M. Sirbu in *Communications Policy in Transition: The Internet and Beyond*. Edited by B. M. Compaine and S. Greenstein. MIT Press, 2001.

[8] *See* "The Potential Relevance to the United States of the European Union's Newly Adopted Regulatory Framework for Telecommunications" by J. S. Marcus in *FCC OPP Working Paper Series*.

[9] *See* "Refinements on a Layered Model for Telecommunications Policy" by D. Sicker and J. Mindel *in Journal of Telecommunications and High Technology Law*, 2002.

Reflections on a True Communications Revolution—
Twenty Years after the Break-Up of Ma Bell

Richard P. Adler
Principal, People and Technology

This New Year's Eve will mark the fourth anniversary of an event that was widely expected to have huge worldwide implications. As it turned out, the arrival of Y2K was a non-event, and the world went on as before, with few effects caused by the arrival of a new millennium.

This New Year's will mark another anniversary, but in this case, it is the anniversary of an event that has had far-reaching and long last impacts. "1-1-84," as it was called at the time, was the date on which the Bell System was broken up, turning what was once the largest single company in the world into a new, much reduced AT&T along with the seven Baby Bells.

The biggest impact of the break up of Ma Bell has been a distinct increase in competition in telecommunications – which is just what it was supposed to do. Customers now have multiple choices for long distance, for wireless service, for Internet access. Competition for local service has taken time to emerge, but has begun to accelerate in recent years.

Competition is surely a good thing, but it has had its downside as well. For one thing, it made life more complicated. What were once simple decisions about phone service have become more vexing. Until the blessed arrival of the federal Do Not Call list, part of the price we have paid for increased competition was seemingly endless calls from companies trying to sell new phone services. And during the 90s, competition resulted in a massive over-investment in fiber optic networks spurred by what turned out to be wildly over-optimistic projections of demand for broadband services.

While the break up of AT&T has had a real impact, it is the combination of this event with the continuing evolution of technology that has fundamentally reshaped the telecommunications landscape. In particular, the emergence of the Internet, along with the shift from analog to digital media on many fronts, has changed the competitive environment and led to the introduction of new types of services.

In the old analog world, different types of communication were supported by different media. Print, radio, television, and telephone each had its own economics and its own regulatory framework. In the new converged digital world, "bits is bits," and on a fundamental level, it doesn't matter whether the bits encode a number, a picture, a song or a conversation.

The Internet was widely embraced because it is has proven to be the most efficient way to move all these bits from one location to another. By providing a common technical standard for messages (TCP/IP), the Internet is able to reliably transport them no matter what their content might be. And by offering a uniform address system (IP addresses and URLs) for every user and every Web site, the Internet created a truly universal postal system for electronic communications – all with remarkably little bureaucratic overhead and virtually no regulation.

The rise of the Internet has inspired some unexpected innovations. For example, my local phone company called me up recently and offered to provide me with unlimited local and long distance calling, along with a suite of other features such as caller ID and voice mail, all for a single flat monthly price. I quickly accepted the offer.

Back in 1984, this kind of service would have seemed almost like science fiction. But I've quickly accommodated to this new reality. I now make phone calls with no thought of where I happen to be calling (as long as it is within the U.S. – I'm still paying by the minute for international calls). And, with the arrival of Internet-based phone service (Voice over IP, or VoIP), there is now even more competition to provide this kind of unlimited service. Just as my per-minute long distance rates have fallen over the years, I expect that the price I pay for unlimited calling will steadily decrease as competition increases.

Of course, the growth of competition in telecommunications is still a work in progress. For many customers, there is still relatively little direct competition for basic local service. (I'm still waiting for my cable company to offer a decent phone service alternative.) And the introduction just this past month of number portability for cell phones is a much-needed step that will expand competition in the wireless world.

So how can we sum up the impact of the twenty-year old breakup of AT&T? In considering this question, I recalled the famous (and possibly apocryphal) response of the Chinese leader Chou En-lai when he was asked by a visitor what he thought of the impact was of the French Revolution. His answer was that "It's too soon to tell."