



State of the Brazilian Internet Report 2001

Nana Howton

[Government Laws and Regulations \(Deregulations\)](#)

Jason Wardwell

[ISPS and Portal Sites](#)

Honor Gunday

[Infrastructure and Investments/Venture Capital](#)

more to come...

HISTORICAL BACKGROUND ON GOVERNMENT REGULATIONS

"It is not that we did not know how to invent machinery, but our forefathers knew that, if we set our hearts after such things, we would become slaves and lose our moral fiber. They, therefore, after due deliberation, decided that we should only do what we could with our hands and feet [...] They were, therefore, satisfied with small villages." (Gandhi)

"An industrial backward country will continually upset the world equilibrium and encourage the aggressive tendencies of more developed countries [...] industrial backwardness] will not solve the basic problems of the country or maintain freedom, nor will it fit in with the world Goframework, except as a colonial appendage." (Nehru)

These two very different approaches to the future of India's industrial revolution by the two most distinguished freedom fighters in India's plight for independence from the United Kingdom remain at the core of the questions developing countries pose themselves as they face their future in the internet revolution.

Will the technology destroy the concept of small villages so dear to

Gandhi? Will it destroy the concepts of self, destroying the national identity in the process?

Gandhi's nationalism, perhaps for its new-age appeal has offended less people than Mussolini's, for example. "We consider our civilization to be far superior to yours," sounds like something to be applauded when spoke by a pacifist and something to be derided when spoken by a warmonger.

It was a common nationalist ground that, in the late 1970s in Brazil, brought together unlike bedfellows like the right and the left which had being fighting for political control that had put the country in the brink of a civil war. Together, they envisioned and put forward the market reserve for computers and new technologies.

Thus, in 1977, the Brazilian government issued the Lei da Reserva de Mercado (market reserve policy) to protect its infant computer manufacturing industry. The prohibition of computer imports began. In order for a Brazilian to bring a computer home from his or her travels abroad, he or she had to reside for at least a year in a foreign country. He or she had to visit a Brazilian Consulate or Embassy, fill out a form listing all the personal items he or she had acquired with their serial numbers. Only one machine per individual was allowed and it had to be a "used" machine in order to be considered part of property acquired during residency abroad. Enforcement was particularly strict if you had been traveling on a tourist visa, while student, faculty and

researchers had an easier time getting their list of import of personal used goods approved.

The problem with this attempt to protect the infant computer manufacturing industry was that there wasn't a computer manufacturing industry. Attracted by the fiscal incentives of the free-trade zone of Manaus, many of the companies whose only involvement with computers rested on "technical support" for imported goodies turned into manufactures. In 1982, a computer manufacture from the south, accused the free-trade zone of unfair competition. He said that in reality, the free-trade zone, geographically too far to undergo the constraints of inspections imposed on the southern industries, was being used as a disguise to circumvent the Market Reserve Law. Manufactures were importing computer parts, mounting the machines in the jungle and slapping a "made in Brazil" tag that was the pride of the flag waving heirs of the dictatorship and of its enemy, the Brazilian left.

This unfair competition had negative impact on research and development. Researchers in the south, the region where all technological innovations had the best chance to take place were discouraged by the inflow of products from the north. Unable to have a margin of profit that kept them in business, many abandoned expensive research in exchange for the production of cheap, poorly made machines.

A frustrated researcher who had moved from a sincere desire to help the

national industry to being an IBM employee and scorn the market reserve law said a memorable thing: "We are trying to invent the wheel, when other countries have already invented the automobile."

The frustration with the goals of the law are understanding. Overall it resulted on the backwardness of Brazil's technology compared to advanced countries. The output from national enterprises was small and consisted of, mostly, low quality computers. Another problem with the law was its broad definition of electronic goods. From mini computers to anything having an electronic component could fall under the law.

The only sector able to invest great amounts of money in technology development was banking and the results were highly positive. Brazilian tourists abroad often complained about the poor quality of automated banking in Europe and the United States.

CHANGES IN THE MARKET RESERVE LAWS

Date	Reduction of IPI (excise tax)	Minimum Investment
1999	95%	5%
2004	95%	5%
2005	90%	5%
2006	85%	5%
2007	85%	5%

2008	85%	5%
2009	85%	5%

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The data above was extracted from Law 10.176 of January 11, 2001 which reviewed and altered Law 8.248, of October 23, 1991 concerning technology products and services.

This new law expanded the reductions on the excise tax (paid over the value of the product and collected by the federal government) offered in the previous law. The law required that the minimum investment of 5% be used early in the year for which the company files its corporate tax with the deductions allowed by the law. Of the five percent figure, 2.3% must be distributed as follows:

- toward research and development in partnership with national research centers: at least 1%
- toward research and development in partnership with national research centers, in central & northern regions : at least 0.8%
- toward the National Fund for Scientific Development: at least 0.5%

Thirty percent of the money going to the central and northern regions is expected to be invested in their local universities. Universities in the south, because of

their reputation and longer history have an easier time attracting funds from private as well as from government agencies.

POINTS TO DEVELOP FURTHER

- Law still benefits most companies headquartered in the Northern part of the country
 - Integration (military ideals of the 70s now facilitated by the internet?)
 - Southern racist and the resistance to the northern development
 - Case Study of a Non Profit organization
 - Add all links and references
 - Edit this first draft
-

Do you have ideas to improve my research?

ISPs

I. History Highlights of ISP's in Brazil

- 1995 – The Brazilian government approves new regulations that open the commercial ISP market to competition. From June '95 to May '96, 90% of the traffic on the Internet from Brazilian users was directed to non-Brazilian (mainly US) web sites.
- 1996 – Universo Online ([UOL](#)) is launched. UOL patterns itself after [AOL](#), starting mainly as an ISP, developing a large subscriber base, and later launching a portal.
- 1997 – UOL and [ZAZ](#) control ISP market, facing little domestic competition and no foreign competition.
- 1998 – Until June, the Brazilian ISP market is 100% national. However, Argentina's [IMPSAT](#), Uruguayan owned [Starmedia](#), and [Yahoo!](#) declare their intent to enter the Brazilian market, rapidly changing the business.
- 1999 – America Online ([AOL](#)) enters the Brazilian ISP/Portal market with a Brazilian version of their site. However, AOL loses a lawsuit in Brazil for the domain name [www.aol.com.br](#), which is already held by a small ISP in southern Brazil. AOL immediately becomes the #1 rival to UOL. UOL names its strategic plan for dealing with AOL "Welcome to Vietnam".
- 1999 – [Terra Livre](#), part of European company [Terra Networks](#), raises \$500 million (US) to finance expansion into Brazil. Terra Livre is one of the first free ISPs, competing against approximately 280 fee-based ISPs that charge between \$10-20 dollars (US) a month to 1.7 million subscribers.
- 2000 – Free access providers, including Internet Gratis ([iG](#)) and Terra Livre, force UOL and other fee-based providers to lower rates by as much as 50%.

II. Current ISP Overview

- 400 ISPs in Brazil, but the number is expected fall drastically through mergers and consolidation of the market. Analysts predict that the Brazilian market can accommodate 8 to 12 ISPs.
- More than 30% of Brazilian websurfers subscribe to UOL, however experts estimate that free access will dominate 70% of the market as more of the country gains access to the Internet.
- The main difficulty that Brazilian ISPs are facing is that they are still heavily dependent on access fees. Access fees in Brazil represent 80% of revenues on average, compared to the U.S. where access fees only represent 50% of revenues.
- Many fee-based ISPs are further reducing fees, specializing in niche markets, or creating their own free access providers. Others are focusing on proprietary content to keep subscribers.
- Internet advertisements currently account for only 1% of the \$9 billion (US) spend on advertising in Brazil, which ISPs see as an opportunity for revenue growth.
- Most paid and free providers do not expect to turn a profit for three to five years.

- Industry representatives estimate that by 2002 there will be 7 million subscribers and 15 million users.
- Many of the larger international and domestic firms view Brazil as the centerpiece for an expansion into other parts of Latin America.

III. UOL – Brazil’s Largest ISP

- UOL was started by [Folha de Sao Paulo](#), a major newspaper in Sao Paulo, and [Grupo Abril](#), a large media company that owns many magazines. The UOL portal derives its content from its parent companies.
- UOL has forged partnerships with other traditional media companies such as [New York Times](#), [USA Today](#), France’s [Le Monde](#), Spain’s [El Pais](#), and [Playboy](#).
- UOL services include:
 - Over 4 million pages of news, information, and entertainment.
 - Daily editions of papers from across the country and around the world.
 - E-mail, instant messaging, chat rooms, and video conferencing.
 - Library section contains an encyclopedia, multiple dictionaries, and other reference works.
 - An e-commerce shopping mall.
 - Web-page hosting and web design tools.
- UOL has over 800,000 subscribers, paying an average of \$10 (US) per month. The portal site registers an astounding billion page views per month, making UOL the most visited Portuguese language site in the world.

PORTALS

I. Current Portal Overview

- Many of the top portals in Brazil are affiliated with one of the major ISPs.
- By far the most popular portal is UOL’s site. UOL draws visitors by providing the best content of any Portuguese language site.

TOP 10 BRAZILIAN PORTALS

Company Unique Visitors (in thousands)

[UOL.COM.BR](#) 1,194

[BOL.COM.BR](#) 851

[YAHOO.COM](#) 809

[IG.COM.BR](#) 797

[MSN.COM](#) 702

[TERRA.COM.BR](#) 672

[STARMEDIA.COM.BR](#) 423

[ZIP.NET](#) 423

[YAHOO.COM.BR](#) 405

[GLOBO.COM](#) 385

II. Future Challenges

- Brazilian portals are teaming up with technology partners so as not to be left out of the race to develop wireless mobile services. The telephone infrastructure is so poor that Brazilian businesses which require high-speed connections are rushing to wireless internet access.
- Major portals such as UOL, IG, and StarMedia's Cade have been hacked recently, raising concerns about Brazilian portal security. The Brazilian portals are growing so fast that they are pushing their technological limits, creating cracks in their security.
- As evidenced by the list of Top 10 Portals in Brazil, which contains two U.S. portals (yahoo.com and msn.com) in the top 5, Brazilian portals need to distinguish themselves as Brazilian products, with losing an international perspective.
- UOL, the top portal in Brazil, is having difficulty expanding into other Latin American countries because their content, aside from being in Portuguese, is so specific to Brazil.

PRESENT/FUTURE PROSPECTS

Brazil will account for 51 percent of the total B2B e-commerce volume by 2005, the firm said. "It's a result of the size of the market and speed with which Brazilian companies are bringing to bear an intense focus on B2B initiatives," said Raphael Duailibi, Brazil market strategies analyst at Yankee
[\[http://www.ecommercetimes.com/perl/story/4602.html#subhead_2-4602\]](http://www.ecommercetimes.com/perl/story/4602.html#subhead_2-4602)

OBSTACLES

Individual/Society-Level problems

-A Latin America wide phenomena applies to Brazil too: wide cash and rare credit card usage in the whole economy offsets some of the advantages of the internet like security and speed. According to the Jupiter research, they developed "escrow-like" solutions to overcome these obstacles.

Country level problems

-Low penetration of technology, infrastructure problems, hard to build brandname awareness.

FUNDING

-Investment can be divided up into two different types

1-major conglomerates building out an online channel

The country's Internet revolution was led by an unlikely suspect: Bradesco, one of the nation's largest commercial banks. Bradesco started offering free Internet access in December 1999, finding it could save money with online transactions and tempt advertisers with a large captive audience. Other banks rushed in.

Unlike in the United States, where Internet-only companies initially drove online spending, in Brazil, e-commerce is driven by traditional retailers. The supermarket Pão de Acucar, for example, was quick to launch Amelia.com, where clients can order groceries, review products and download recipes.[Wired]

2-strategic investments from abroad

countries :

Apparent competition between the in terms of overall investments :

United States \$23.9 billion

Spain \$20.4 billion

Holland \$8.8 billion

France \$7.8 billion

Portugal at \$7 billion

Brazilian companies, just like the other Latin American companies use foreign countries as their basis to avoid tax, and Brazilian bureaucracy as well as misregulation. In the meanwhile, by having headquarters in places such as Miami, the Cayman Islands etc... they become players in the world Internet scene and attract investments and venture capital in an easier manner. They also can keep up with technological changes.

Foreign companies have added Portuguese content to their sites, hoping to tap into the country's rich online demographic: millions of young, urban consumers.

Terra Networks of Spain Today, AOL Brazil, Yahoo and Microsoft's sites are among the top five properties in Brazil, according to Media Metrix.

3-Independent companies

Problems:

Most Ecommerce companies try to build constellations of services by attacking multiple industries, but because of the scarcity of their monetary resources, the constellations might collapse as a whole. It would be smarter to have a concentration in one area instead of multiple areas.

Currently the independent companies are growing faster than supported companies, but they also have a higher cash-burn rate. And this will cause them to get acquired by the conglomerates or the foreign companies or simply fail. [Mercado Libre during the conference last week, actually said that eventually they will be acquired, but so far they need to concentrate on becoming the best, and they also indicated that they are happy to see their competitors ads when they visit us cities, (their competitor being DeRemate.com also based out of miami) because they will eventually run out of money and fail.

reference:

Lori Enos [<http://www.ecommercetimes.com/perl/story/7235.html>]

E-Commerce Experiences from Latin America , Stanford GSB, Vice President of BV of [Mercado Libre](#)

EXPECTATIONS FROM BRAZIL E-COMMERCE

Ecommerce in Latin America is set to grow from US\$3.6 billion in 2000 to \$66.5 billion in 2004 [Emarketer]

Brazil is well positioned to take advantage of both B2B and business-to-consumer (B2C) e-commerce because of its advanced industrial sector and a large and fairly cohesive consumer market.

DIGITAL DIVIDE

Brazil's 6.1 million Internet users representing 40 percent of the total of Latin America.

Up to 27.4 million users by the end of 2003.

-Cost of a computer and a phone line is high for Brazilian Urban Poor so the most of the population is not able to access the Internet.

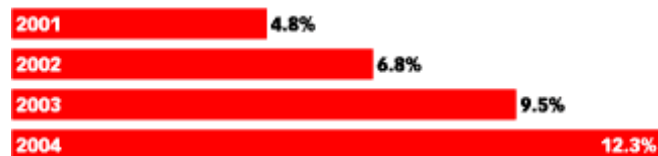
-Digital divide parallels itself with Economic Divide.

-Brazilian Government has plans to increase PC penetration (The government now has plans to produce \$200 basic computer for this purpose)

-NetCash-PopBanco has plans to install kiosks in local padarias.

[By Noah Elkin Emarketer.com]

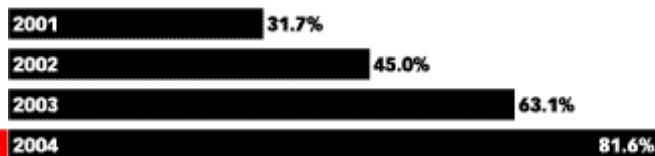
Internet Users in Brazil, 2001-2004 (as a % of population 14+)



Source: eMarketer, 2001

010228 ©2001 eMarketer, Inc.

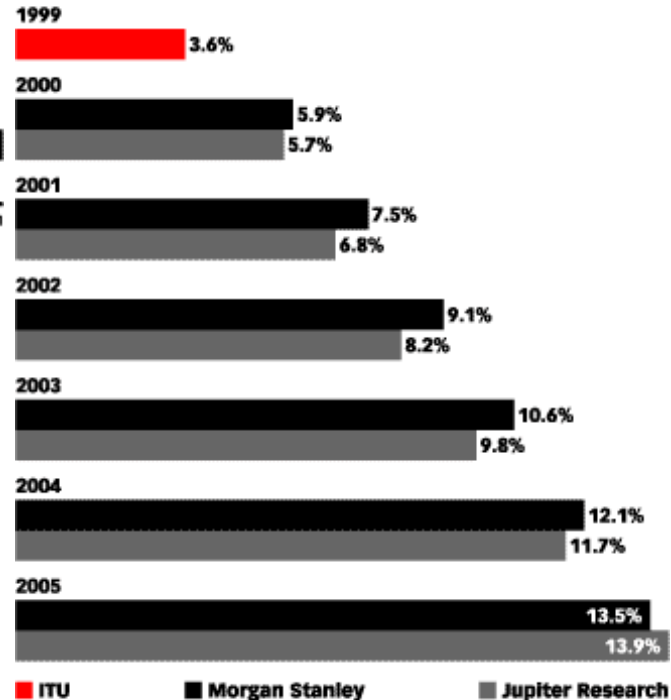
Internet Users in Brazil, 2001-2004 (as a % of top 15% of population 14+)



Source: eMarketer, 2001

www.eMarketer.com 010227 ©2001 eMarketer, Inc.

Comparative Estimates: PC Penetration in Brazil, 2000-2005



Source: various, as noted, 2000

010229 ©2001 eMarketer, Inc.

www.eMarketer.com

OUTLOOK OF INFRASTRUCTURE COMPANIES IN BRAZIL

TELECOM

-Newly Privatized Telecoms

-Fixed Line Service Providers

The Spanish phone company Telefónica de España dominates the telecommunications industry in the country. Telefónica bought several phone operators, including São Paulo's Telesp, and is now the biggest private investor in Brazil.

-Cellular Phone Companies

1 in every 4 Latin Americans will own a cell phone by 2004 [IDC]

Greater Mobile Internet Access : more than 50 million people in Latin America will surf the Net from their cell phone in 2005 [Jupiter]

Low-end users, or folks at the bottom of the income scale, make up most of this South American country, whose minimum wage is equivalent to \$90 a month. "Most people buy phones to just receive phone calls. Unlike in the US, the caller pays but not the receiving party. Cellphones provide access everywhere, there is no wait to get a phone line, the prepaid options are quite cheap and sold everywhere, and create a spending limit

Mobile licenses for carriers wanting to build a GSM infrastructure will be awarded at the end of this month. Siemens, Ericsson and Motorola have all together invested \$3 billion to build a GSM network and/or manufacture handsets to be distributed later this year. .

Problems:

Cellphones are tiny, slow and a bad interface for the Net.

Investments:

Portugal Telecom recently purchased Telesp Celular -- the operator of the cellular phone system in São Paulo.

-Phone Makers

Users: 21 million in 2000 to 41.9 million by the end of 2003.

Ericksson, Nokia, Motorola, Alcatel, Lucent

-Standards

GSM and TDMA are network standards that use the same frequency to transmit data, while CDMA uses multiple frequencies. GSM allows cool features that appeal to many, such as SMS (Short Message Service) and is a good system for worldwide roaming.

USA: Different Cell phone technologies have caused the American carriers and e-commerce companies to lose business. Normally, they would be able to use each other's cell phones, each other's lines, casting systems.

Europe and 65 Countries: Use GSM as the standard, and enable roaming across the world.

Brazil : TDMA is the dominant network standard in Brazil, followed by CDMA. This year about 7 million TDMA handsets were sold compared to 3.5 million CDMA handsets in Brazil. In 2005, about 17 million TDMA phones and 4 million CDMA phones are expected to be sold [Yankee Group]Telefonica, Telesp Celular, Global Telecom and Motorola are offering CDMA handsets or the services for CDMA handsets.

Though 55 percent of the cell phones in Brazil operate on a TDMA network, CDMA technology is taking over slowly.

-International Carriers

They are replacing the undersea cables. The old cables weren't upgradeable but the new cables have massive capacity. (Yankee Group)

COMPUTERS

-Software

Microsoft, Sun, Oracle, Symantec,

-Hardware

Intel, IBM, Compaq, Gateway, Dell, HP

-Internet Connectivity Hardware

Cisco, 3Com

BROADBAND

ADSL/Cable Modem Operator competition is causing equipment prices to fall, making broadband more accessible. In Brazil, ADSL subscribers are expected to top 1 million in 2003 with the number of cable modems increasing from 60,000 in 2000 to 827,000.

For Broadband to become widely used, there needs to be a trigger. This trigger according to Yankee Group research is either a B2B marketplace that will require faster and more reliable connections or a special application that requires a faster or broader bandwidth.

Problem: Latin America doesn't have much content available online, so it will be quite hard for them to transition to broadband. First, the need of broadband needs to be created. [Michael Mahoney www.NewsFactor.com]

Research Sites:

Wired <http://www.wired.com>

Industry Standard <http://www.thestandard.com>

Business 2.0 <http://www.business2.com>

Jupiter <http://www.jup.com>