

Regulatory Barriers to the Expansion of Internet Services in Latin America

by Eloy Vidal, Information and Communications Technology Division, The World Bank Group

Regulatory Barriers to the Expansion of Internet Services in Latin America Abstract

Increasingly in today's world economic growth is being driven by the Internet. Indeed, it is estimated that in the major OECD (Organisation for Economic Co-operation and Development) countries more than half of GDP (Gross Domestic Product) is knowledge based. For developing countries, the Internet offers a range of growth opportunities that are qualitatively different from anything that has gone before and moreover would appear to be particularly benign from a development point of view.

In particular, the Internet provides a means of exporting previously in-exchangeable services. This can be witnessed by the growth of the software industry in India and the increasing tendency for OECD companies to outsource clerical and administrative tasks to the Far East where graduate labour comes at a substantially lower cost. (Indeed, even the World Bank recently announced that it plans to move its entire accounting department to Delhi). The expansion of service industries is particularly desirable in development terms, not only because they are labour-intensive but also because they provide opportunities for skilled labour. The Internet is also proving helpful to small and medium enterprises, because it dramatically reduces the costs of marketing their products and finding new commercial outlets.

There is growing anecdotal evidence of Latin American villagers using the Internet to market indigenous crafts and agricultural produce with significant success; for example, via the Red Científica Peruana site. Once again, this is a particularly positive development trend because it promotes the growth of small-scale local enterprises, which are an important and significant, local source of employment and wealth creation in developing countries. However, these benefits cannot be reaped unless adequate information infrastructure is developed and made widely accessible in the developing world. This article examines the extent of Internet development in Latin America and identifies the factors that may still be holding it back.

Internet in Latin America

Internet usage in Latin America is relatively high compared to other developing regions and is expanding rapidly. In such a dynamic environment it is hard to pinpoint the exact number of users.

However, estimates for the year 2000 range from 8.1 to 13.3 million. This represents just under 1% of the regional population, far lower than penetration rates in OECD countries but still about twice as high as in Asia and the Pacific region or the former communist countries. The implication is that, worldwide, Latin America accounts for just over 2% of all Internet users. It is estimated that the number of users has grown more than 90% per annum between 1995-1999 and will continue to grow by 30% to 75% per annum during the early years of the new century. In parallel, the number of Internet hosts in Latin America tripled between 1997-1999. The number of Spanish and Portuguese language sites remains low, but has been growing rapidly. In 1999, the share of sites for these two languages reached, respectively, 3% and 1% of the total.

Although these achievements are impressive, the question remains whether the Internet is reaching its

full potential in the region. The expansion of the Internet thus far has been driven by the private sector. However, there are a number of areas where appropriate government action is an essential complement to private initiative. This does not appear to have been adequately recognised in many countries.

Regulatory Challenge

The first of these is the regulatory sphere. Most of Latin America's major economies undertook reform of the telecommunications sector during the 1990s. The regulatory frameworks that were put in place at that time often predate the Internet revolution, and consequently contain a number of provisions that are proving detrimental to Internet expansion. In Argentina, for example, growth in Internet penetration remained sluggish until 1997 when the government took regulatory action to reduce the costs of Internet access, triggering a 500% jump in usage during a single year.

Restructuring Local Call Charges

The cost of Internet access depends both on the local call tariffs and on the ISP (Internet service provider) charges that essentially, reflect the cost of international leased lines. Across Latin America, the telecommunications reform process has tended to lead to increases in the cost of making a local call. This is so for a couple of separate reasons.

The first is a move away from flat-rate local tariffs and towards a structure where charges are proportional to the duration of calls. This charging scheme is at odds with the cost structure of modern electronic exchanges, where the marginal cost of local calls is virtually zero, and has the effect of discouraging time-intensive Internet usage. The ISP industry has been lobbying for flat rate charges, without success to date.

The second factor is the phasing out of cross-subsidies from long distance to local services, which has led to significant increases in the cost of the latter. For example, between 1990 and 1998 the cost of local calls both in Venezuela and Uruguay has risen six-fold. Overall, local call charges in Latin America averaged US\$0.07 per minute. In the six largest countries prices span a considerable range - from US\$0.02 to US\$0.17 per minute.

In Argentina, where local call charges (at US\$0.17 per minute) are the most expensive in the region, the regulator opted to introduce a special access code for Internet dial-up that provided a discount of up to 58% on normal rates.

Reducing the Cost of International Leased Lines

The ISP market in Latin America is already very competitive. There are 846 providers with a total turnover in 1999, of US\$1.4 billion. However, market structures tend to be quite concentrated. Indeed, in the six largest countries, the four largest ISPs account for between 25% (Colombia) and 92% (Venezuela) of the market. By 1999, about two thirds of Internet accounts were on unlimited access plans with monthly fees ranging between US\$15 and US\$30, with an overall average of US\$20 per month for South America and US\$26 per month for Central America. These charges represent substantial reductions of around 75% on prices prevailing, only a couple of years before. Prices have come down as a result of competitive pressures, but also due to direct regulatory interventions. In Chile, interconnection among ISPs has been mandated and a peering exchange has been established. While in

Argentina, a regulatory decree brought down the cost of international leased lines by 45% after a public hearing found that a 1.5Mbit/s link from Argentina to the US cost more than ten times as much as the same link in the reverse direction.

Owing to a shortage of peering points in the region, the cost of leased lines is still very high and varies considerably across countries. This reflects two distinct regulatory problems. The first is the allocation of the cost of leased lines between Latin America and the information backbones in the US. For historical reasons, the entire cost of this link must be borne by Latin American users even though a considerable fraction of the traffic flows in the opposite direction. The second is the absence of effective competition in the provision of leased-lines which opens up the possibility for the incumbent telecommunications company to abuse its dominance, even in markets which are officially liberalised, preventing anti-competitive practices.

Moreover, the main telecommunications companies typically have their own ISP subsidiaries. For example, in Argentina, Chile, Mexico and Venezuela the dominant incumbents control between 35% and 92% of the ISP market. Only in Brazil, have such interests been outlawed following the break-up of Telebras. Therefore, abuse of dominance may not be limited to monopoly pricing but could also take the form of discrimination towards rival ISPs, for example in the quality of service provided. Furthermore, there is the possibility that dominant incumbents could engage in predatory pricing by cross subsidising between their ISP and telephony services. In Argentina, Arnet (an ISP linked to Telecom Argentina) has been offering Internet access plans for as little as US\$9.90 per month which is less than half that of the next cheapest plan. This has fuelled (as yet unsubstantiated) allegations of predatory pricing from ISP rivals.

The discussion here has focused on dial-up access, since DSL and Cable Modem are still in their infancy in Latin America. However, measures to prevent monopoly abuse from telephone or cable suppliers who bundle up access and ISP subscription should also be considered. It is possible that some of these problems might be circumvented by the recent expansion of free Internet access plans in the region. In Brazil, the number of Internet users jumped by 1.2 million within the first three months of free access. The largest free access providers in Brazil are the banks who are able to cover the costs of Internet access from the substantial efficiency savings they obtain when customers switch to on-line banking.

However banking aside, the financing of the free access model is as yet unproven in the Latin American context. In the UK, where free access was pioneered, financing is typically secured either through revenue sharing arrangements with the local telephone companies or through advertising sales. However, with the exception of Chile, local telephone companies in Latin America have been unwilling to enter into revenue sharing arrangements with ISPs, probably due to the absence of competition in the local loop and their own interests in the ISP market. Low levels of Internet penetration in the region make it difficult to compete for advertising revenue with alternative channels such as TV and radio.

Reaping the benefits of technology convergence

The increasing convergence of telephony, cable TV and Internet services potentially offers significant benefits to customers. On the one hand, use of cable can facilitate expansion of Internet coverage at relatively low cost by taking advantage of an existing network. On the other hand, increasing the number

of channels for telephony and Internet services should strengthen competitive pressures, thereby reducing costs.

However, Latin American regulators are ill equipped to ensure that these benefits reach the consumer. The first problem is quite simply one of jurisdiction. Regulation of broadcasting is often institutionally separate from regulation of telecommunications, making it difficult to ensure that consistent regulatory decisions are taken across telephone and cable based communications. This issue is already arising in Argentina where Microsoft is piloting a cable Internet scheme, using a device that costs less than US \$200 per household.

Another major regulatory issue has been raised by the advent of Internet telephony. While clearly advantageous to consumers, the concern is that voice-over-packet services may provide unfair competition to conventional telephony companies in the sense that they evade universal service levies, escape license payments, and undermine statutory periods of exclusivity. A key question is whether voice-over-packet can be regarded as a direct substitute for telephony (in which case it should be treated in a consistent regulatory fashion), or an altogether different value added service. In Argentina, voice-over-packet has been completely outlawed. Whereas in Chile, it is legal but subject to the same regulation as conventional telephony. Elsewhere in Latin America, the legal status of Internet telephony is ambiguous or still unresolved.

Policy Challenges

The Internet poses challenges to policy-makers as well as regulators. A particularly pressing concern is to ensure that access to the Internet is not confined to a privileged few. At present, Internet usage in Latin America (as elsewhere) is highly concentrated. For example, 90% of Internet connections in the region are to be found in the six largest economies, which together represent about 75% of the population. Within those countries, access is also highly unequal. The typical Internet user is a young, urban, college educated, male professional.

Promoting universal access

In response, a number of countries have launched universal access programmes. A central component of these programmes is the construction of tele-centres that bring Internet connections and related facilities to remote rural or marginal urban areas. Provision of infrastructure is usually combined with training facilities to ensure that local residents are able to benefit from the arrival of the Internet. Many governments are also promoting free Internet access in schools.

Facilitating e-Commerce

The e-Commerce market in Latin America was estimated to stand at US\$ 500 million in 1999, and is projected to grow exponentially. However, e-Commerce in Latin America is dominated by B2B (business to business), trades which represent 80% of the total market. A number of significant barriers to B2C (business to consumer), commerce have been identified; these include low credit card penetration, inadequate postal systems and inefficient customs services. A number of these problems could, potentially, be mitigated by suitable policy interventions such as customs and postal sector reform.

Conclusions

In conclusion, the Internet offers new and promising avenues for development to a region such as Latin America, both by providing new white collar jobs in service industries and by stimulating the growth of Small and Medium Enterprises. The private sector has made dramatic progress in expanding access to the Internet across the region. However, there is mounting evidence that government must take complementary measures, if the phenomenon is to reach its full development potential. These include, on the one hand, dismantling a number of regulatory barriers that are making Internet access unduly costly for Latin Americans. For example, moving towards flat rate local calls, stimulating competition in the provision of international leased lines and in the meantime capping the costs of such lines at reasonable levels. The generally dominant position of the incumbent Telecommunications Company in the ISP market also merits regulatory attention, as does the issue of how to bring the benefits of technological convergence to the consumer. Above all, proactive policy measures are required to ensure that Internet access does not remain the preserve of the privileged few.

*Unless expressly stated otherwise, the findings, interpretations and conclusions expressed in this article are those of the authors of the work and are not necessarily those of The World Bank Groups Boards of Executive Directors nor of the countries they recommend.