

The network society as seen by two European underdogs

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Since we submitted the first draft of this paper in October, 1999 things have been changing. The “underdogs” as not as far behind as they used to be. But here are still large differences in the penetration of the internet in Europe. Before we get into a description of what is happening on our two countries (Italy and Spain) let’s look at a few figures – based on the European hostcount as reported by RIPE ¹ with some adjustments to reduce the effect of temporary technical hiccups.

This chart shows figures for the seventeen countries in the Europe-Mediterranean area that had more than 100,000 internet hosts at the end of 1999.

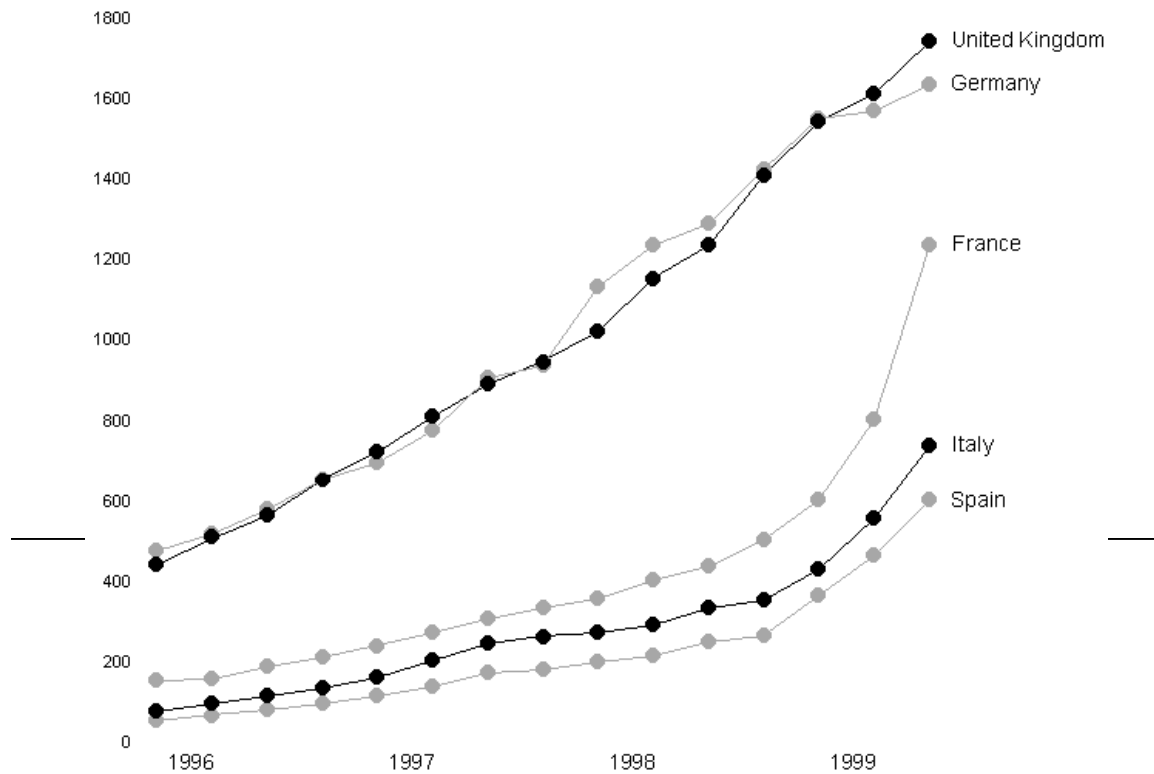
Internet hosts in 17 countries in the Europe-Mediterranean area

	1998	1999	% of total	% growth in a year	Hosts per 1K inhabitants
United Kingdom	1,449,342	1,741,727	16.9	20.2	29.9
Germany	1,449,915	1,635,076	15.9	12.8	19.9
France	511,193	1,233,071	12.0	141.2	20.1
Netherlands	625,769	959,083	9.3	53.3	61.1
Italy	397,762	733,108	7.1	84.3	12.8
Spain	306,559	539,113	5.2	75.9	13.6
Sweden	417,894	522,904	5.1	25.1	59.4
Finland	465,335	492,513	4.8	5.8	96.6
Norway	319,628	438,961	4.3	37.3	99.8
Denmark	298,275	343,137	3.3	15.0	66.0
Belgium	208,665	339,357	3.3	62.6	33.3
Switzerland	245,409	300,249	2.9	22.3	41.1
Russia	193,837	240,752	2.3	24.2	1.6
Poland	130,554	174,152	1.7	33.4	4.5
Israel	114,584	149,490	1.5	30.5	25.8
Czech Republic	86,428	122,253	1.2	41.5	12.0
Hungary	95,931	119,264	1.2	24.3	12.0
European Union	6,393,783	9,032,621	87.9	41.3	24.2
Total area	7,871,917	10,276,903		30.6	14.6

The remarkable growth of France – especially in the last quarter of 1999 – is due to a peculiar situation in that country. There was a widespread use of an old system, *minitel*, that absorbed a large part of “online” communication. In the last two years the French government has been developing incentives to shift the traffic from the *minitel* to the internet, and we are beginning to see the results. Let’s look at a graph showing internet development in the five “large” countries in the European Union.

Internet hosts in five European countries 1996-1999

Quarterly “adjusted” data – figures in thousands



The gap between the two leading countries and the rest was widening, but the trend changed in 1999; now the “backward” countries in Southern Europe (including Greece and Portugal) are growing faster. It’s too soon to tell how strong this trend will be, but three things are fairly clear.

- So far, internet use in Europe has been growing roughly at the same speed as worldwide. About 75 percent of the internet is in North America, 15 percent in Europe and 10 percent in the rest of the world.
- 90 percent of the internet in Europe is in Western European countries. There is a relatively high use of the net in some Eastern European countries (it’s no coincidence that those with the best record in internet use are the most likely to join the European Union).

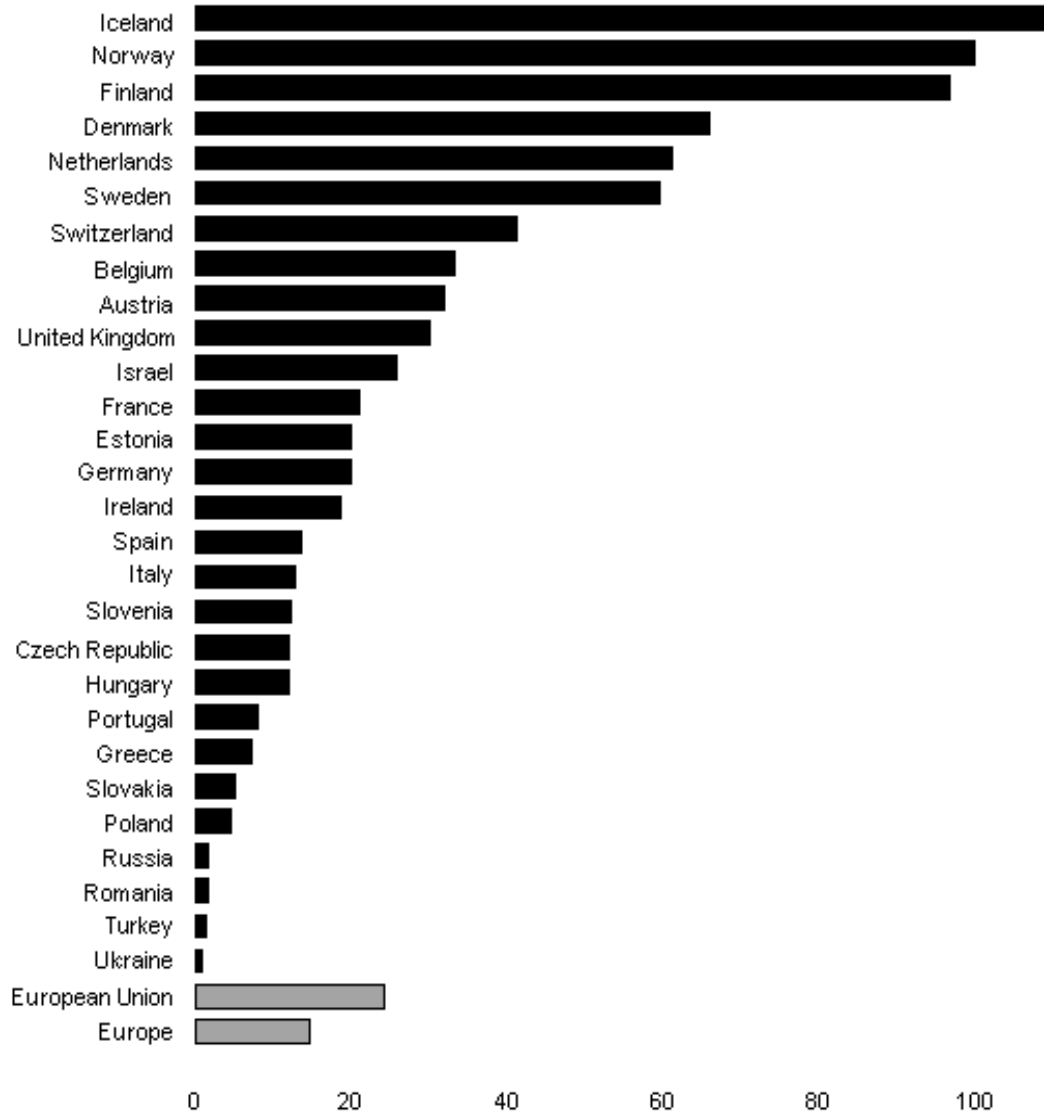
- Some of the “underdogs” are beginning to catch up, but there are still very large differences within Europe.

This is clearly visible if we look at a chart of density (internet hosts per thousand inhabitants) in the 28 countries in the Europe-Mediterranean area with over 20,000 internet hosts.

Internet hosts per 1000 inhabitants

28 countries (of 200 in the RIPE area) with over 20,000 internet hosts

For many years Finland had the highest internet density in the world, but now it has been overtaken by the United States and the situation in Scandinavia is gradually leveling out. Some other countries in Northern Europe are getting stronger – especially the Nether-

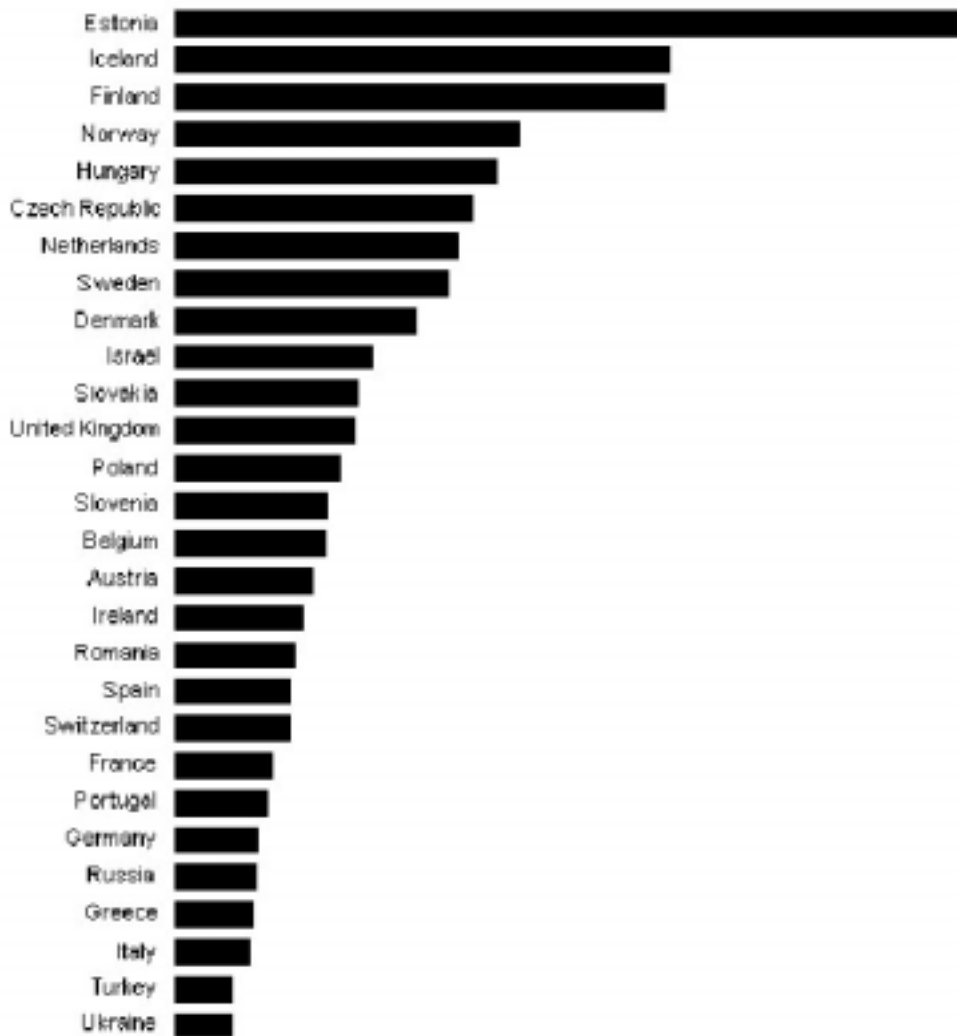


lands. Germany is below the average in the European Union. If and when the *minitel* conversion is completed, France may be in the same league as the UK. Spain and Italy² are still far below their potential, but much stronger than they were in past years.

The picture is even clearer if we compare internet hostcount with income (GNP).

Internet hosts in relation to income (GNP)

28 countries (of 200 in the RIPE area) with over 20,000 internet hosts



Germany is weak in proportion to its economy. Some Eastern European countries are ahead, on this score, of most of their western counterparts. The weakness of the “underdogs” in Southern Europe is pretty obvious. Spain is beginning to improve, Italy is sill lagging behind.

Why are some countries doing better, or worse, than others? Simple facts such as density of population have an influence; as in the case of Scandinavia. But there is strong internet development in densely populated countries such as the Netherlands. Is technology the reason? Not really. Italy,

for instance, has relatively low penetration of computers in homes; but until a short while ago only one in three homes with a computer had an internet connection. Internet development is mainly a *cultural* problem; it's based much more on how people relate to each other, and how they understand the values and usefulness of the net, than on any technology.

What's going on in Italy

There are more mobile phones in Italy than in any other European country. In spite of high and confusing rates, the number of cellular phones is expected to exceed the total of traditional telephones in year 2000. That shows that Italians can be very quick in catching up with new technology if they are interested. Until about a year ago, most people in my country were not interested in the internet because they didn't have a good answer to a simple question "what's in it for me?" That attitude was quite reasonable. Nobody was telling people what the internet could do for them. Who is to be blamed? The media, the government and business.

There is no deliberate repression of the internet in Italy, but...

In international circles there is a vague perception that Italy may be one of the countries where there is censorship or government repression against the internet. This was even reflected in John Perry Barlow's "Declaration of Independence of Cyberspace". It's a misconception; there are, indeed, problems, but there is no censorship and no deliberate government repression.

The origin of that perception was the infamous "Italian crackdown" in 1994. This is how it was described by Bruce Sterling.

In May 1994, Italian police launched an attack on Italian bulletin board systems that was at least twice the size of Operation Sundevil (the "Hacker Crackdown") in the United States and may have been five times as large. This was the largest police seizure of bulletin board systems in world history. Italian police may not have been the first to carry out large-scale attacks on bulletin board systems, but they have done it with more gusto than anyone else in the world.

Unlike the US attack, that was aimed at hackers and (assumed) terrorists, the Italian crackdown was originated by a search for unregistered software. It was prompted by Microsoft and the Business Software Alliance, but it went beyond the intentions of its original instigators. A couple of overzealous and technically ignorant magistrates, hoping to be in the limelight by tackling something new and newsworthy, originated a nationwide "overkill" that involved (and scared) a large number of innocent people. The victims were mostly BBSs (at the time there were 2000 BBSs in Italy and very few internet connections). The problem of computer seizures continues – Andrea Monti will explain. But it's the result of poorly conceived copyright legislation and lack of technical and procedure education in courts and police forces; not of a deliberate or concerted government policy.

This is only one of several problems that need to be faced. There is an obvious need for a "watchdog" to operate consistently over time to protect freedom and privacy; in this long-term perspective the ALCEI association was born in 1994.

The hype and the horror stories

Until a short while ago, mainstream media in Italy felt very uncomfortable with the internet.³ They were (to a large extent they still are) worried that it could interfere with their control of information. Italy is a true democracy and there is freedom of opinion; but the media system is warped and biased. 90 percent of television is concentrated in two groups (one controlled by the government, the other owned by the head of the opposition) and a large part of the press is strongly influenced by

political parties as well as major financial interests. The idea of losing control and privilege doesn't please any of the dominating interests, including the cultural élite.

I don't think there was any concerted plan to stifle the development of the internet, but nothing was done to encourage it and the media confused the issue with a poisonous mixture of hype and horror stories. The internet was presented as an inhuman environment, more fit for androids or robots than for people. Stories about hacker attacks, viruses, pornography, paedophilia, terrorists and all sorts of dangers were blown up with grotesque frequency and evidence. Though many people today are much more familiar with the internet (and the media carry more hype than terror) many people still prefer to use the net only at the office because they feel uncomfortable about connecting from home.

Bureaucracy and the law

Italian economy and society are notoriously stifled by one of the worst public administrations in the world. – and that, unfortunately, includes our school system. In recent years the government has made some genuine attempts to improve efficiency and give better service to enterprises and to the general public, but it's an uphill job. Old-fashioned systems and attitudes are hard to overcome. Andrea Monti (who is much more competent than I am in legal and administrative matters) will explain how and why the internet in Italy is encumbered by bureaucracy and how things are made worse by poorly conceived legislation.

One of the reasons why the internet was late in taking off in Italy is that there were no good public services online. Now the declared intention is to do more and better, and a few services are beginning to be available. But most of them are poorly organized and inefficient. At the end of 1998 the government and some political interests began to understand how serious a risk our country is running if it lags behind in the network society and economy, but it's taking a long time for them to understand what they should do about it – and how. One of the problems is that English had always been treated in our school system as “one of the foreign languages” and only in the past two or three years authorities are beginning to understand that knowledge of the “global language” should be much more widely spread and no longer be a privilege of the more affluent families that can afford to buy private tuition or send their kids abroad.

Business myopia

If the government is late and clumsy about understanding the internet, business (large and small) isn't doing any better. For many years they ignored the problem (and the opportunity) while they concentrated on “business as usual” and short-term pressures. More recently they began to experiment, but somewhat carelessly and with no clear objectives. The mushrooming of poorly conceived, “cosmetic” websites has led to disappointment for the companies, that of course don't achieve any results, and for their customers. Newcomers to the net get quickly bored with the exploration of uninteresting sites. There is a lot of talk and hype about e-commerce and e-business, but very few facts.

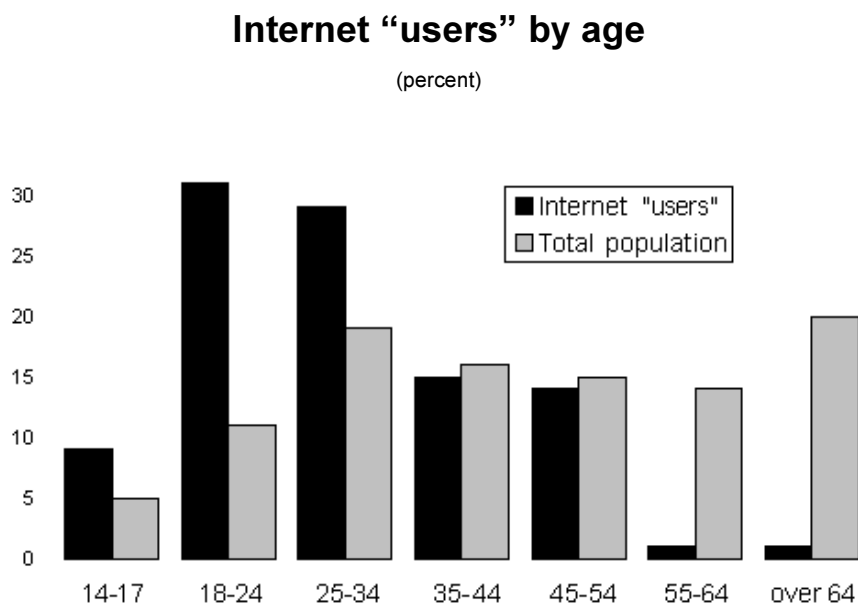
Many online services have been pushing hard to sell advertising, with poor results. The investment in online advertising is less than one quarter of one percent of total advertising expenditure in Italy. Even worse, the accent on the internet as “just another advertising medium” has distracted companies from the real values of network communication as a business tool.

Now things are changing

There have always been, and still are, conflicting and confused estimates of how many people are online in Italy (as everywhere else). But that is not the issue. The real problem is not how many they are, but what they do with it. One of the most ridiculous misinterpretations is the widespread opinion that the typical internet user is a teenage technomaniac spending many hours a day “surfing” or “navigating”. Many internet promoters are still trying to sell their services to that imaginary “target”. It’s proved by research that most internet users are hard-working adults with little time to waste and use the net very selectively. Only recently the percentage of young people online has been increasing; and very few of those young people are compulsive “surfers”.

There was a relevant change in 1999. More and more people in Italy are using the internet. There was no effective top-down effort to educate them or encourage them (most of the “computer literacy” efforts did more harm than good). People discover that they needed the net to communicate with the rest of the world; they find that one of their friends or business relations have e-mail, and that they can use the net to gain information, for their work, their cultural interests or their hobbies. It’s pretty clear from all available research that this is a natural development coming from the daily experience of people; and that makes it a really strong trend.

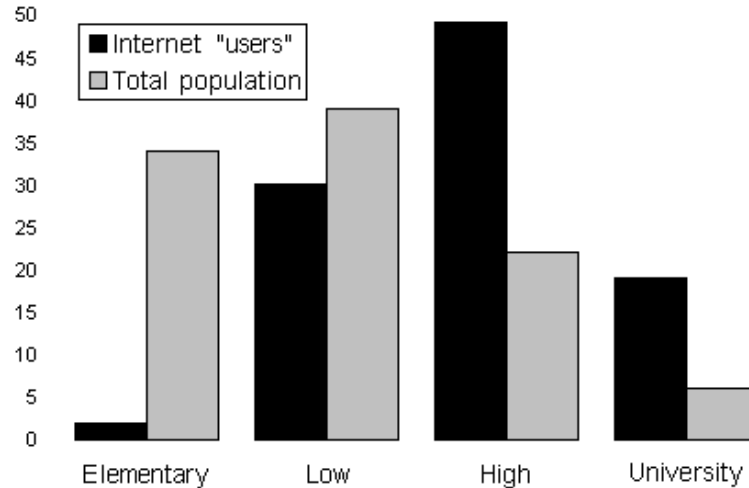
I shall use only three graphs to explain this point. ⁴



Until a short while ago, net use was concentrated in the 35-44 age segment. Now more young people are coming on board. But there is still a serious problem with older people, that in Italy are a very large part of the population – and increasing.

Internet “users” by school level

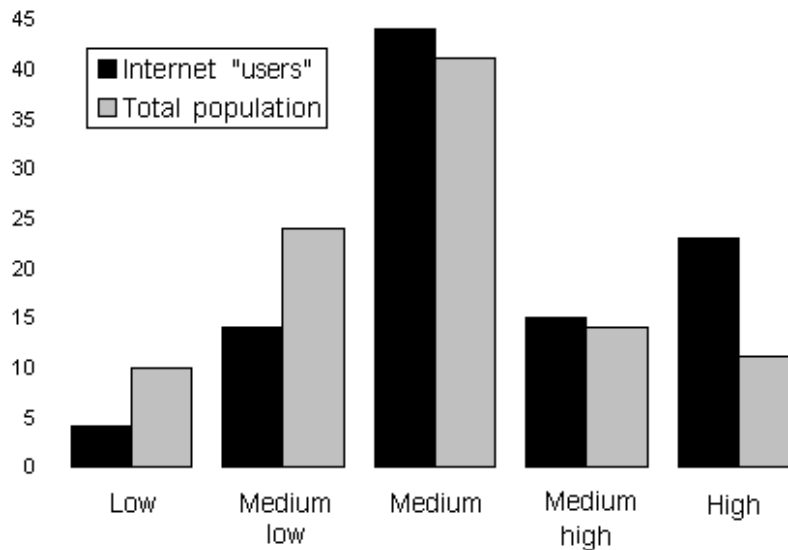
(percent)



There is considerable change. Only a short while earlier, internet use was much more concentrated in the higher education levels.

Internet “users” in relation to income

(percent)



Here again we see considerable change. Internet penetration in “middle” and “middle lower” income groups is much larger that it was; and that trend is continuing.

80 percent of the people online in Italy have some knowledge of English (as compared to 30 percent in the general population). Women online are only 37 percent, but that is a much higher

percentage that in past years and it's increasing. Over half of the people online today didn't have internet access a year ago; recent research indicates that newcomers aren't as naive as some internet marketers think. They learn quickly to find their own paths and use the net selectively.

There are over 300 ISPs in Italy but a large part of the business is concentrated in a few large ones. In the last two years, and especially in 1999, a "war of the portals" developed, with large organizations of all sorts trying to dominate the internet scene; many of them offering "free internet access". The proliferation "portals" and of "free internet" is not the cause of widening internet use; it came after the trend was already on its way. It seems to be causing considerable confusion and increasing the number of people who try and quit. Also the effort to channel users through "portals" seems, so far, unsuccessful; people use the services when they suit their needs, but there is no "loyalty" to any of the many available points of access.

Other indicators confirm a crucial fact: the internet is no longer a privilege of the "technically literate" or the most affluent part of the population. It's becoming "everyone's tool" and this is a natural trend, coming from the people and not from the authorities or the intellectual leadership.

Another major change is the attitude of business. Since June, 1999 (but more visibly in the last few months of the year) there have been clear indications that it's changing. Large companies are beginning to understand that they must take the internet much more seriously and that they don't know how to handle it. This perception is not yet reaching widely enough the vast world of "SMEs" (small and medium enterprises) that are the driving force in Italy's economy, but it's beginning to happen. Diagnosis is the first step in any effective treatment. The spreading of embarrassment and discomfort is very good news indeed. The more we understand that we have a serious problem, the sooner we shall begin to solve it. And if business understands what the net is really about, sooner or later so will the government.

Footnotes

¹ <http://www.ripe.net/ripenncc/pub-services/stats/hostcount.html> The area covered by RIPE (*Réseaux IP Européens*) includes several countries in the Middle East and Africa, but the total hostcount in those countries is too small to make a relevant difference in calculations related to the Europe-Mediterranean area. An analysis of these statistics and other data, with updates, can be found in the *NetMarketing* newsletter <http://gandalf.it/netmark/>

² There have been some problems, especially in 1999, with internet hostcount in Italy; the actual situation is likely to be somewhat better than is shown in these charts. We shall probably have a clearer picture at the time of the CFP2000 meeting in April. But even with these shortcomings the broad perspectives are fairly clear.

³ See *Cassandra* http://gandalf.it/free/cass_en.htm

⁴ For a more detailed analysis see <http://gandalf.it/netmark/netmar37.htm#heading03> Later research shows that in the second half of 1999 there is even greater penetration of the internet in wider segments of the population, including middle-lower income and education levels.