

# Power of the Internet in Creating Communities and in Re-enforcing Existing Communities

(Juvenile justice in Spain: current regulation and projects underway)

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*Sarearekin, lehen aldiz giza oroimenean, distantzia eta iragaitza-denbora ez dira jadanik komunikaziorako barrera. Herrialdeen, kulturen eta ordu-ardatzen arteko mugak zeharkatzen dituzten komunitate zibernetiko berriak garatzen ari dira. Aurkezpen honek ikertzen du nola Internet sarea beste zenbait komunikabiderek elkartu ahal den nazioarteko merkataritza errazteko, bai eta izan baden eta geografia aldetik ondo zehazturik dagoen komunitate batean duen elkarreagina eta garapen kulturala. Euskal Herrian izango dituen inplikazioez espekulatu da.*

*Giltz-Hitzak: Internet sarea. Komunitatea. Negozioak. Gizartea. Produktibitatea. Berrikuntza.*

*Por primera vez en la memoria humana, con la red Internet, la distancia y el tiempo de tránsito desaparecen como barreras de la comunicación. Se están desarrollando nuevas comunidades cibernéticas que cruzan fronteras entre países, culturas y usos horarios. Esta ponencia examina cómo la red Internet puede asociarse con otros medios de comunicación para facilitar el comercio internacional así como la interacción y desarrollo cultural en una comunidad existente geográficamente definida. Se especula sobre las implicaciones en el País Vasco.*

*Palabras Clave: La Red Internet. Comunidad. Negocios. Sociedad. Productividad. Renovación.*

*Pour la première fois de mémoire d'homme, avec Internet, la distance et le temps de transit disparaissent en tant que barrières de la communication. De nouvelles communautés cibernétiques se développent, traversant les frontières, les cultures et les fuseaux horaires. Ce rapport examine comment le réseau Internet peut s'associer avec d'autres moyens de communication pour faciliter le commerce international ainsi que l'interaction et le développement culturel dans une communauté existante géographiquement définie. On spécule sur les implications dans le Pays Basque.*

*Mots Clés: Le Réseau Internet. Communauté. Affaires. Société. Productivité. Rénovation.*

## I. Main Topics

The main topics of my talk will be:

1. Special properties of Internet affecting community – why Internet is an important new factor in shaping old communities and defining new ones.
2. Explosion of Internet – how it is becoming of key importance.
3. Development of business, commerce and work in the community and Internet – how these are migrating online offering opportunities that are both local and international.
4. Transformation of organizations - What does it take today to succeed in business and commerce?
5. The role of Internet in the transformation of organizations
6. Social, cultural and family development in communities and Internet

## II. Special properties of Internet affecting community

Obviously, Internet:

- is multi-media, and supports communication by writing, voice, and small videos,
- can communicate instantaneously any place around the world,
- can interconnect millions of people and businesses, and
- it is an interactive medium, allowing all users to communicate with each other and select what they get.

But Internet also has some very remarkable properties that never before existed, which basically change the economics of communications we have known in the past.

Once a user pays a small monthly subscription fee (\$15 to \$20 in the US) there is no charge for use.

- It is unlike telephone calls or regular mail, where it is necessary to pay for each call or letter sent.
- A person can send and get 1,000 different e-mail messages a day and it costs no more than to send or get one.
- A person (in the US at least) can browse the web all day, and it costs no more than to use it for 5 minutes.

The list of special properties of Internet goes on:

- It is both an *individual-to-individual* medium and a *broad-cast* medium.
- It costs no more and is just as easy to send out copies of the same e-mail message to 1,000 people as it is to send it to one person.
- Websites can be seen by anybody on Internet anywhere.

Internet is really not a mass medium like radio, TV or newspapers. It is a *communications medium* that can also be used for mass distribution

Cost of communication does not depend on distance.

- It costs the same to communicate 6 feet or 10,000 miles, to anywhere

- The \$20 a month fee allows an individual to communicate as many copies as he wants and get information all day and night long every day over any distance in the world for a month

Internet is incredibly inexpensive compared to any previously-known communication medium in history. No other communication medium has ever had such remarkable properties. And there are even more remarkable characteristics of Internet:

- There is unlimited space on the Internet for everybody and for an unlimited amount of materials
- It is a democratic medium, owned and controlled by nobody, even defying government efforts to control it.

These properties make Internet ideal as

- an one-to-one communications vehicle
- a publishing vehicle
- a vehicle for conducting commerce, and
- a vehicle for facilitating business connections.

And these same properties create significant new opportunities for existing communities, and for the creation of new communities

## III. Explosion of Internet

There are many indicators of the explosion of Internet, not only in the US but also in Europe and throughout the world. We cite statistics reported by several different organizations that monitor Internet developments. (The numbers that follow were those available at the time of the creation of this talk several months ago. Since that time the expansion of Internet has continued, and current versions of these numbers would now be significantly larger. In "Internet Time" what happens in 6 months is equivalent to what happens in 6 years in most industries. For example, current estimates are that there will be over 100 million Web users worldwide by the end of 1998. And the current rates of expansion in Spain and Latin America exceed that of the US.

- *Intelliquest* estimates that there were approximately 47 million adults online in the United States at the end of 1996.
- A *Cyber Census* March/April 1997 survey stated that the number of World Wide Web users has nearly doubled to 40 million people from a year ago.
- *Forrester Research* predicts that 135 million people in the US will be using e-mail by 2001, which will be approximately 50% of the US population.

40 years ago TV was the "new media", 15 years ago cable TV was. Today it is Internet.

- From 1995 to 1996 web ad spending quintupled (5x) or 500%
- Internet commerce will grow to one trillion dollars a year (\$1,000,000,000,000) by 2002, John Chambers, CEO of CISCO Systems
- It took TV 13 years to get 50 million users, radio 38 years to get 50 million. It will take the net only 5 years to get 50 million users.

There are numerous indicators of the explosive growth of Internet:

- *International Data Corp (IDC)* estimated that the number of commercial sites on the World Wide Web is doubling every six months and came to more than 45,000 in 1996
- *IDC* says Internet/Intranet expenditure is growing at almost five times the rate of the information technology market as a whole
- *IDC* says Internet will replace the PC as the motor behind the industry's growth in coming years.

Internet Technical Developments are making Internet services available to everyone.

- Microsoft and Netscape are making Internet sites part of the normal desktop view in home and office computers
- Rapid expansion of broadband cable modems and satellite Internet services are making Internet into an effective multi-media medium.
- Internet "push" and "channel" services are proliferating for people who don't want to browse
- WebTV and similar developments are expected to bring Internet into most homes without computers, and make Internet available in more rooms in homes that already have it.

Internet is becoming accessible not only by those having or now acquiring computers, but also via TV set adapters.

- According to *Jupiter Communications*, personal computers will remain the premier platform for Internet access in 47 million US households by the year 2002
- *Computer Intelligence 1997 Consumer Technology Index (CICTI)* study stated that more than 40 million U.S. households now own PCs. In addition, more than 50 percent of households with children have PCs.
- (*CICTI*) PC ownership remains closely linked to education and income. PC ownership continues to be strongest among baby boomers:
- (*CICTI*) More than 50 percent of U.S. households headed by someone 30 to 49 years old own a PC.
- Internet will also reach non-computer households. According to *Jupiter*, 15.3 million households will access the net from WebTV and other non-PC devices by 2002.

The explosion of Internet is affecting all segments of the population, including Women –

- *CommerceNet/Nielsen* found that 42 percent of Internet users are now women, compared to 34 percent in the fall of 1995.
- *Forrester* predicts that by Year 2000 there will be 18 million women using the Internet.
- *Jupiter Communications* predicted that by the year 2000, 46.5 percent of the online population will be women.

There is also an explosion in the number of women involved in Internet commerce. A recent survey by IBM reveals:

- percent of businesses owned by women have a home-page compared to 16 percent of businesses owned by men.
- 47 percent of female-owned business owners subscribe to an online service compared to 41 percent of male owned businesses.

Once it was thought that computers and Internet would only be used by younger people, that a whole generation would have to pass before older people would take to them. This has not turned out to be so. "Third-Agers" are people over 50.

- According to *Excite*, 14% of Internet users are Third-Agers
- 83 percent of third-agers log on at least once a day and spend over eight hours a week online
- The typical Third-Ager is educated with 86 percent having been to college.
- 65 percent earn salaries more than USD \$40,000
- The fastest growing segment of US Internet users is people over 65

At the other end of the age spectrum, Internet usage is exploding among children.

- *Jupiter Communications* predicts that the number of children using the Web from the classroom will increase from 1.5 million in 1996 to 20.2 million in 2002
- *Jupiter Communications Digital Report* predicted that the growth in the number of kids with access to the Web from the classroom is expected to increase from 1.5 million in 1996 to 20.2 million in 2002
- *Jupiter Communications Digital Kids Report* predicted that revenue from the children online market will grow from just over \$306 million at year-end 1996 to nearly \$1.8 billion by year-end 2002.
- A *USA Today* poll showed that 98 percent of all teenagers in the US have used a computer and they spend an average 4.4 hours per week on a PC at home or at school.

#### IV. Development of business, commerce and work in the community and Internet

As Internet expands in scope and importance, conventional media such as newspapers, radio and TV are rapidly moving to take advantage of it. For example, considering newspapers (again the data was valid as of the time of the conference, though the numbers now are larger yet):

- 4000 newspaper web sites in the world by the end of 1997
- 700 U.S. community weeku newspapers now publish online, compared to 152 one year ago
- 43% of online newspapers are now based outside the U.S. - up from 29% one year ago

Advertising, business, and commerce are going to Internet

- *Zona Research* predicts that the Internet/Intranet market will be worth \$100 billion in year 2000.
- A *CommerceNet/Nielsen Media Research* survey found that the number of users who have gone to the Web looking for information about products has doubled, from 19 percent in the fall of 1995 to 39 percent now
- *ActivMedia* estimated that Net sales in 1997 will exceed \$13.3 billion
- According to a report recently released by Jupiter, on-

line ad revenues for 1997 are expected to reach a value of \$3 billion. (including the values of ad trades)

- It's expected that by 2002, "intermercials" and sponsors of content areas will comprise half of online ad spending
- local ad spending, mostly classifieds, will account for 54 percent of spending
- This year banner ads will comprise 80 percent of all online ad spending. (Jupiter)
- according to a survey by *@d.tech*, over 10 million people will use the Web regularly to make purchasing decisions by the year 2000.
- According to a *Killen & Associates* report, Internet-based auto loan transactions will account for 20-30 percent of the market by 2001
- *Chrysler* stated that within 4 years, 25 percent of its sales will be online, up from 1.5 percent in 1996.
- A research study by *Cowles/SimbaNet* indicated that Intranet/Internet information sales would represent 20 percent or \$5.4 billion of all business/professional online information sales by 2000

Internet growth is affecting all patterns of commerce and changing balances among media. In every area, commerce is going to the Internet.

Ticket sales. *Forrester Research* says USD\$8 billion worth of entertainment and travel tickets will be bought online in 2001. *Jupiter Communications* expects USD4.7 billion by 2000.

Online stock trading. Investment banking firm *Piper Jaffray* predicts the industry will mushroom eight-fold by 2001, and account for 60 percent of the discount brokerage industry within four years.

Computer hardware. *Dell Computer Corp.* reports selling USD2 million worth of computers products a day over the Internet.

Books *Amazon.com* sold USD27.9 million in books online during the second quarter of this year — up 74 percent from the first quarter.

Music *Jupiter Communications Net* predicts online sales of music will total USD1.6 billion — 7.5 percent of the overall music market — by 2002.

Groceries. *Andersen Consulting* predicts over the next 10 years the online grocery shopping market will grow to USD \$60 billion, and account for roughly 12 percent of the entire consumer package-goods business.

Classified Advertising. One of the many areas of commerce migrating to the Internet is Classified Advertising. Focusing for the moment only on the activities of Microsoft in this area:

- Microsoft is developing advertising and transaction-based Web sites for each of the main areas of classified ads: automobiles, housing, and employment.
- Microsoft's CarPoint site is generating \$10 million in car sales each week.
- Microsoft is planning a real estate listings site for the second quarter of '98.

- "Microsoft represents an immediate threat to newspapers and their classified ad revenue," says a *VP of Arlen Communications Inc.*

Internet allows large and even very small businesses to function in the international marketplace. For example, consider *Amazon.com*:

- Bookselling was basically a local business until 18 months ago
- Now *Amazon.com* and others have radically changed the picture
- *Amazon.com* is the world's largest bookstore, a virtual bookstore with over 2.5 million titles, selling all over the world
- 2 years ago, somebody in Uruguay or Karachi or Palermo wanting a special book had to place a special order, probably wait for it for 6 weeks and pay at least 3 times the New York street price.
- Now the same person can order the same book from *Amazon.com* via Internet and get it in 2-4 days at New York street prices, even including the cost of shipping.
- *Amazon.com* does not have the large costs of infrastructure of bookstore chains. In a matter of months, it has grown from a very small business to where its sales compare with those of giant traditional bookstore chains, like Barnes and Nobel.

Even small local businesses are doing business on the net. For example:

- A tiny French company that sells truffles online
- Local specialty wine stores
- Specialty candy stores
- Movie theatres
- Auto parts dealers
- Banks, big and little\*\*
- Specialty publishers\*\*
- Music companies and stores\*\*
- Software companies, of course\*\*

Companies marked \*\* can deliver their services directly over the Internet. Their communities of customers are now International.

## V. Transformation of Organizations

But everything I have mentioned above is still at the surface, compared with fundamental transformations going on in our businesses and society in general. Looking deeper at Internet, commerce and work, We ask *What does it take today to succeed in business and commerce?*

To examine this question, I start by listing characteristics of traditional industrial companies (Table 1), and then compare these to characteristics of successful new companies and traditional companies that have fundamentally restructured themselves to take into account the conditions of the current times (Table 2).

**TABLE 1:** Traditional industrial companies – typical pattern

- \* Appeal to mass markets
- \* Make standard products that do not change
- \* Have rigid hierarchical organizations
- \* Focus on manufacturing
- \* Work on a production line basis
- \* Think in terms of their products instead of the needs their products meet
- \* Change very slowly - are reactive rather than proactive
- \* Rarely examine themselves or what they were doing
- \* Do not fully empower their employees
- \* Focus on cost reduction
- \* Tend to be appealed to older users
- \* Are losing market share to competition
- \* See their competition as coming from traditional competitors, when it is really coming from new forms of competition that meet the customer needs. For example:
- \* Internet services are competing with newspapers
- \* Internet services are competing with retail stores

During the last 10 years, large and small companies, to be competitive, have renewed themselves to become more competitive.

**TABLE 2:** Typical characteristics of highly competitive new or renewed organizations:

- \* Have adopted techniques such as Total Quality Management, Process Re-Engineering, Enterprise Integration, and Knowledge Management.
- \* Are knowledge-focused
- \* Are aimed at specialized and changing markets
- \* Focus on providing services and information as well as physical products
- \* Make customer-specific products
- \* Make small products lots or customize each one for a customer's desires
- \* Listen very carefully to their customers
- \* Have flatter organizational structures that empower employees and are flexible
- \* Are accustomed and welcome rapid change
- \* Have flexible production organizations
- \* Use the latest technologies
- \* Are constantly in a process of examining themselves, learning, improving, evolving
- \* Are proactive, and often create their own markets
- \* Carefully track social and societal changes
- \* Focused on adding value instead of cost reduction
- \* Appealed to younger affluent users
- \* Are highly successful
- \* Work on the basis of multiple alliances, even with competitors
- \* See their competition as coming from other developments, not in their own industries
- \* are highly competitive and making money

Organizations with these characteristics exist and are thriving today, not just tomorrow - and they typically make many uses of Internet

To show the relevance of Internet to these shifts, TABLE 3 exhibits a line-by-line comparison of the two kinds of organizations

**The shift in industrial organizations - worldwide**

<i>TRADITIONAL MANUFACTURING COMPANY</i>
* Long production runs
* Standard uniform physical products
* built to market forecasts
* Passive workers
* Highly centralized control
* Local or national markets
* Corporations
* Weak use of information technology

<i>NEW KNOWLEDGE-BASED ORGANIZATIONS</i>
* Short or custom production
* Highly differentiated service/physical products
* Built to customer needs
* Motivated and empowered workers
* Widely distributed authority and responsibility
* International markets
* Alliances
* Very strong use of information technology

An example of this shift can be found in the New England shoe business. Until the 1950s, Boston enjoyed a very strong traditional shoe manufacturing industry. But then the shoe companies moved to the South of the US, and then to Italy, Asia and Mexico. Fifteen years ago it appeared that the shoe industry had all but died in New England. But then something else happened – the advent of high value-added athletic shoes

**• Old Paradigm**

- \* Tennis shoes, sneakers – what are sold are simply shoes
- Few standard designs**
- \* Low cost commodity products
- \* Typical price \$12
- \* Success factor - low- cost manufacturing
- \* US shoe makers stopped being able to compete in the 1960s

**• New Paradigm**

- \* Sports and leisure foot comfort and power – what is sold is customer capability to do sport-like activities in safety and comfort
- \* High price targeted products

**• Immense variety in design**

- \* Typical price \$50-\$100
- \* Success factor - marketing, meeting people’s lifestyle hopes
- \* New England companies highly successful
- \* Shoe companies are information companies – they do everything but make shoes

**• Shoe manufacturing outsourced to Asia**

- \* Value added: shoes costing \$3:00 are sold for \$55.
- \* Boston is back as the leisure foot comfort capital again

Some of the old shoe manufacturing buildings in East Boston have been renovated and now house software companies. I recently visited such a company whose business is making multimedia software to support the sales of high value-added sports shoes.

**VI. The role of Internet in the transformation of organizations**

Now, let's look at the role of Internet in facilitating the kind of industrial transformation described above.

TABLE 4: How Internet Relates to needs for Organizational Transformation

<b>THE NEED</b>
* Short or custom production
* Highly differentiated service/physical/information products
* Built to customer needs

<b>WHAT INTERNET DOES</b>
* Internet research facilitates rapidly changing markets
* Electronic mail and dedicated networks can allow constant monitoring of customer needs
* Extranets can link producers, suppliers and customers, so a common information system can enable customized production
* Extranets can directly control production machinery
* Many new products are information products and can be delivered directly over the Internet

- \* Motivated and empowered workers
- \* Widely distributed authority

- \* E-mail offers a many-to-many communication channel facilitating team communications
- \* E-mail and voice conferencing facilitate operations of small decentralized work units

- \* International markets
- \* Alliances
- \* Very strong use of information technology

- \* Distance-independence of Internet communication facilitates international communications
- \* Internet facilitates operations of virtual corporations, based on multi-party temporary alliances

Extranets are private networks on Internet that extend beyond a single company to multiple organizations that must collaborate, communicate and exchange information, documents, and transactions in order to achieve joint goals. Companies now investing in Extranets include Caterpillar, National Semiconductor, John Deere, Olivetti, Sun Microsystems, Mobile Oil, McDonnell Douglas's, Marshall Industries, Lockheed Martin, as examples.

*Extranets make possible new industrial communities of companies worldwide.*

Many extranets are operated by third parties and involve hundreds or thousands of industrial members and users. For example:

- *Enterprise Integration Network* - microelectronics & computers
- *Dow Jones PowerHub*, real time electricity trading systems linking power utilities
- *Powerag*, linking makers and users of fertilizers, pesticides and agricultural chemicals
- *Virtual Emporium Partnetnet* - affecting thousands of wholesalers and retailers and changing patterns of wholesale distribution. Uses an extranet to maintain a very large virtual mall on the Internet
- *VHA Extranet* - an alliance of 1,400 health care organizations, doing \$8 billion in commerce a year

Summary with respect to the role of Internet in industry and commerce:

- Internet is empowering businesses large and small to develop their own communities of users internationally
- Thousands of new communities of industrial companies, retailers, and small businesses are already in existence and relying heavily on the Internet
- These are not things "the future will bring." They are real now and affecting the business communities in the Basque Nation right now

## VII. Social, cultural and family development in communities and Internet

Internet is impacting on culture, families and individuals in hundreds if not thousands of different ways. Some of these

ways are highly visible and others are subtler. I will be content here to provide a few personal examples.

### 1. Detailed communications and information webs for local communities

I live in Wayland Massachusetts, a town of about 10,000 people near Boston. A large number of Websites relate to Wayland, its people and its businesses. A search on "Wayland Massachusetts" using the Netscape LookSmart Search engine came back with 100,409 Web documents that match somehow with Wayland Massachusetts. Internet Webs relating to Wayland exist for many local stores, restaurants, government agencies, real estate agents, auto repair garages, artists, and just plain people. For our town of Wayland and countless other US local communities you can find webs for:

- the local community newspaper
- local hospital, doctors and health care facilities
- conservation groups
- groups of local artists, many of which show paintings webs describing the history and geography of the town
- webs describing town offices
- Webs devoted to opinions, polls and surveys

The web for the town government for small US towns like Wayland increasingly offer . great details, although there is considerable variation between what one town offers and another. What can often be found includes:

- Listings of teachers in the schools, programs, and schedules for school activities
- School lunch menus, sports reporting, etc.
- Information on all town offices and departments
- Hours, people, responsibilities, and schedules
- Descriptions of student projects

As an example of the detail available, check out the Haiku Poems by Ms. Saylor's Students. Ms. Saylor is a teacher of the Second Grade in Wayland's Claypit Hill Elementary School. The Internet address is [http://www.wayland.k12.ma.us/claypit\\_hill/index.html](http://www.wayland.k12.ma.us/claypit_hill/index.html)

From that page you can also navigate to other information about Wayland Schools

So, one main point is that the Wayland webs on Internet

have highly specific and local information that reinforces local community.

But, there is another more-surprising point, and that is the Wayland webs on Internet also have important national and international extensions.

Here is one actual example:

- A house across the street from where I live is used to house executives and their families from Latin America who work for the Gillette company. Gillette rotates these families in and out every two years, to give their executives from Latin America exposure in the Gillette headquarters in Boston. We have had neighbors living there from Costa Rica, Brazil, Argentina, and Venezuela.
- Families who are going to be transferred to that house from Latin American cities can now use the Internet to learn what Wayland will be like for them while they are still in Caracas or Sao Paulo. They can get all kinds of information from the Internet that would be impossible to find in books.

The local community now extends internationally via Internet. Another example is this one:

El Universal of Caracas, our client, has long been Venezuela's leading newspaper. However, until recently, they were strictly local, only sending a dozen copies out of the country to libraries. Now, the newspaper on Internet has over 100,000 regular readers. About half are outside Venezuela, and consist of students and Venezuelans abroad, and business people who want to keep track of what is happening in Venezuela. The result of El Universal online, and hundreds of other Venezuelan Webs are that:

- *The physical community of Venezuela is now much more open to the world*
- *There is a new entity in existence - Venezuela as a virtual nation without boundaries*

The local community now extends internationally via Internet. Thousands of examples can be found, many of which are very tiny. Here is another very-simple personal one:

- Last year, my 17 year old son had to do a high-school homework assignment on Sigmund Freud. He found the best information on Internet sites in Vienna, Berlin, London and Washington

- This information from international sources helped him in his local community role as a student in Wayland High School

*My son and his computer-using friends in high school are comfortable in gathering information from all around the world to do their school work to just find out about things they are curious about.*

Here is a final personal example of the local community extending internationally:

- Many years ago, I inherited a sculpture from my Italian grandmother signed by a distant grand-uncle, an Italian artist called *Agusto Rivalta*. The sculpture is perhaps 120 years old.
- I could only remember vague things my grandmother told me about my uncle Rivalta. I could never find out anything about Rivalta, libraries and books on sculpture do not list him, even the great art libraries of the world are silent about him.
- Two weeks before giving this talk, I searched for Agusto Rivalta's name on the Web and found out from Italian city community webs that several small Italian towns have his sculptures in their town squares, and so does Detroit Michigan. I found biographic information on him, and pictures of his other sculptures

The web and its international extensions have given me a better sense of my Italian heritage and who my uncle was, and something I can pass on to my children

For all the reasons given above, I believe that the Internet has much to offer to El País Vasco, as well as to the international Basque community. Benefits can include:

- Participation in world commerce
- Social and economic development
- Better education and social cohesion