

- Architecture journals
- Big data
- Creative process
- Critical design
- Cultural analytics
- Digital publishing
- Digital revolution
- Digital signage
- Domus
- Driver assistance systems
- Editorial design
- Global positioning system
- Information design
- Information visualisation
- Innovation
- Interaction
- Interaction design
- (In)visible design
- Multi-script
- Multiculturalism
- Multidisciplinarity
- Multilingualism
- Narrative artifact
- Neuromarketing
- Paper
- Perception
- Remediation
- Road signage
- Sensoriality
- Strategic vision
- Type design
- Typography
- Visual catalogue
- Visual impact

- Curricular revision
- Graphic design
- Intangible support
- Internet

Quim Larrea

“Every Internet site is increasingly like a small video game in which visitors make decisions almost intuitively”

Architect, designer and journalist. Founder and director of the architecture and design studio Quim Larrea & Associates, (quimlarrea.blogspot.com.es). President of Surgenia, Centro Tecnológico Andaluz del Diseño, curator of numerous exhibitions and co-director of *De Diseño* and *ARDI*, he has also been a member of the editorial board of the review *El Croquis*.

The Internet and the Vinegar Fly

The daily expansion of the Internet, both in volume and in importance, calls for an analysis of the situation in order to find valid rules or parameters. The conceptual tools we have been using so far, indebted to editorial design, can only be partly extrapolated to the new medium, while traditional supports have been drastically replaced.

As a result of the consolidation of the Internet, graphic design is permanently facing the huge challenge of conceiving a new way of reading that will allow information to be conveyed through this medium in an organised manner.

The speed at which this intangible and until recently unforeseen medium is changing and growing demands an unconventional strategy, i.e. an ongoing and also changing theoretical approach that will enable us to find our bearings in this new reality. We must begin by announcing that what we are about to suggest is more a method of analysis than a series of conclusions.

Harry McCracken, founder and editor of *Technologizer*blog (*technologizer.com*), former editor in chief of *PC World* and editor at large for *TIME*, is the journalist responsible for selecting the fifty best websites of the year.¹ The article appears once a year, presented by the prestigious *TIME* magazine since 2004, grouping websites according to themes: sports, news, social, finance, shopping, travel, etc. Funnily enough, from one year to the next very few are repeated (perhaps due to the writer's excessive zeal for novelty), but the lists have included domains that would subsequently appear on navigation toolbars: Vimeo, Flickr, Skype, Kayak, Amazon, Issuu, Spotify, etc.

According to the annual report published by the *Royal Pingdom* blog, in December 2012 there were around 634 million websites.² If we wished to visit them all and had a hundred years in which to do so, we would have to view a dozen per second. What's more interesting is that 51 million of these sites were created over the course of 2012.

¹ H. McCracken, 'Help Us Choose the Year's Best Websites,' *TIME Tech* [online], Time Inc., California, 6 September 2012. [Accessed: 4 May 2013]. Available at: <http://techland.time.com/2012/09/06/help-us-choose-the-years-best-websites/>

H. McCracken, '50 Best Websites 2012,' *TIME Tech* [online], Time Inc., California, 17 September 2012. [Accessed: 4 May 2013]. Available at: <http://techland.time.com/2012/09/18/50-best-websites-2012/>

² 'Internet 2012 in Numbers,' *Royal Pingdom* [online], 16 January 2013. [Accessed: 4 May 2013]. Available at: <http://royal.pingdom.com/2013/01/16/internet-2012-in-numbers/>

This allows us to draw two conclusions: the first is that the figure gives us a clear idea of the need for professionalism in the sector and the ensuing quality of works, as a result of the fierce competition; the second is that good old Harry must have spent a great deal of time in front of his computer to come up with his choice which, in view of the scale of production, is quite a risky venture.

Predictions made in 2010 stated that the Internet would have 3,000 million users, approximately 700 million 'visitable'³ sites and would generate roughly 4.2 billion dollars, which would make it the fifth world economy.

An uncontrollable universe such as the Internet cannot be equalled to absolutely anything else, a fact we find excitingly bewildering. Not only can it not be compared to film, books, encyclopaedias, music or newspapers, but it also has a Pantagruelian appetite for consuming contents. Just as the horse was relegated by the appearance of motor cars, information recorded on analogical supports is now conveniently consigned to a bend in the road of history which we shall only revisit out of romantic curiosity, for sports purposes or with a collector's interest.

The phenomenon is of such magnitude that it surpasses the implications of the nineteenth-century Industrial Revolution and has an impact on all sectors, from industry and the economy to sociology and the arts. Its growth is constant and poisonous; it respects no limits, establishing itself faster than any other phenomenon in the history of mankind. We should not forget that in 1996 there were 'only' 16 million users.⁴ Once it has equalled the rate of world literacy, its growth will slow down. In this sense, organisations such as One Laptop-per Child (OLPC),⁵ and the 2.5 million basic computers, with their integrated source of renewable energy, distributed around the world thanks to guru Nicholas Negroponte, spread the good news in underdeveloped and developing countries. These initiatives have been followed by inventions such as the Raspberry Pi microcomputer, that costs just €20, or Arduino, the soft-hard, low-cost hybrid with an open-source operative system.

How does the Internet manage to seduce so many millions of followers?

The Internet is basically the Web, electronic mail, online conversations and access to remote devices. In actual fact it is just a summarisation of services and information, though its size exceeds everything heretofore unimaginable and it is constantly growing and renewing itself. This article focuses on the first of these sections: the Web.

In its expansion, the Internet is gobbling up a huge number of sectors traditionally considered healthy, that have proven to be dramatically vulnerable. Music was the first victim, and perhaps the one that disappeared the fastest, soon to be followed by travel agencies, film, books, banks, advertising, etc. Today it

3 D. Dean, S. DiGrande, D. Field, A. Lundmark, J. O'Day, J. Pineda and P. Zwillenberg, 'The Internet Economy in the G-20,' *bcg.perspectives* [online], 19 March 2012. [Accessed: 30 June 2013]. Available at: https://www.bcgperspectives.com/content/articles/media_entertainment_strategic_planning_4_2_trillion_opportunity_internet_economy_g20/

4 *Internet Growth Statistics* [online]. [Accessed: 23 September 2013]. Available at: <http://www.internetworldstats.com/emarketing.htm>

5 'OLPC's mission is to empower the world's poorest children through education. We aim to provide each child with a rugged, low-cost, low-power, connected laptop. To this end we have designed hardware, content and software for collaborative, joyful, and self-empowered learning. With access to this type of tool, children are engaged in their own education, and learn, share, and create together. They become connected to each other, to the world and to a brighter future.' *One Laptop Per Child* [online]. [Accessed: 23 September 2013]. Available at: <http://laptop.org/en/vision/mission/index.shtml>

is beginning to dangerously encroach on trade, education and social relations. It has even coined its own currency, the *Bitcoin*, far from the regulations of all powerful issuing banks.⁶ The attempts to curb this engulfing process have been so awkward and inefficient that they have never risen above futile gatekeeping efforts. This is a stubborn reality that will accept no remorse and agree to no suspensions.

An Anarchical Character

However, what is perhaps most surprising about this new situation is that it has a distinctly anarchical character, and a serious tendency to nihilism that would have delighted mister Mikhail Bakunin. On the Internet individuals are free to access and share information or contents. Even though some governments (China, Saudi Arabia, North Korea or Cuba, to name but a few) censure its contents, the liquid and changing nature of the medium and the volume of information it represents are blazing such trails that regulation is extremely difficult to achieve and provokes the reaction of a collective defined by the newly coined term cyber-dissidents. This difficulty in regulating the Net is proven by the rate of success in fighting so-called cyber-crime, which is so low that it demoralises its supporters. A report made by the United States Department of Justice and published in September 2012 in *Consumer Sentinel Network*⁷ declared that the acknowledgeable part of the worldwide annual total of credit card fraud is \$5.55 billion. We are therefore facing a versatile, self-regenerating and, what is more surprising, intangible entity.

Warning

Faced with this scenario, the complex aim of this article is to capture the instant of something in motion, examine it and try to deduce what its point of departure was, where it is going and what route it will follow. This would be like stopping a film after having seen the first part of it and, having analysed in depth the still that is on the screen, venturing what lines the plot will follow. So, this is a bold exercise, somewhat light-hearted perhaps, but the medium leaves no other way to face up to it without falling into clairvoyant interpretations that already abound.

The Bionic Being: Medium, Man, Prosthesis

The main characters in this adventure are users: the Internet as such is unaware of their race, gender, social status, religious beliefs, morals and environment. Its use is not barred, nor is it compulsory; there is no need to become a member of any club or be conveniently related, and it goes without saying that users have no responsibility whatsoever over its contents.

6 'Bitcoin is a cryptocurrency where the creation and transfer of bitcoins is based on an open-source cryptographic protocol that is independent of any central authority. [...] The concept was introduced in a 2008 paper by a pseudonymous developer known only as 'Satoshi Nakamoto', who called it a peer-to-peer, electronic cash system.' In 'Bitcoin' [online]. [Accessed: 23 September 2013]. Available at: <http://en.wikipedia.org/wiki/Bitcoin>

7 Federal Trade Commission, *Consumer Sentinel Network Data Book for January - December 2012* [online]. [Accessed: 4 May 2013]. Available at: <http://ftc.gov/sentinel/reports/sentinel-annual-reports/sentinel-cy2012.pdf>

Users do only receive information from the Net but actually interact with it; they are not passive elements (as they are in the case of books, television or music). Here they can ask, select and decide; in other words, they either capture data from the Net or else contribute knowledge to it, sometimes even both. Through their mere presence, their interests or appetites, which are considered in statistic terms, they are involved in the Net's contents—web pages that have no visitors die, while those that receive many visits grow, for visitors 'feed' the system by devoting their time to it, and that time is a rich and coveted nutrient that justifies all efforts, all investments. The Internet isn't supported by raw materials, money or labour exploitation; it is sustained by the time users spend surfing, browsing through its contents. Without this manna, the system would collapse.

And yet the entire virtual (though extremely real) universe presented by the Net wouldn't be accessible without an intermediary element, a computer prosthesis that enables the magic effect of transforming the Net's intrinsic intangibility into something concrete. Such prostheses, whether they be computers, Smartphones or tablets, are physical realities and have their limitations: they wear out, they need energy, they break, they get stolen, sold, etc. But, above all, they must adapt to users, to their ergonomic and comprehensive needs, and must develop interfaces that will favour intelligible use-Net-user relations, making information circulate in both directions. Only then can designers begin to take matters into their own hands.

Leaving product design to one side, for it deserves a section of its own, we shall focus on something as inordinately extensive as what takes place on the screen.

Web design, in spite of the stubbornness of a few designers, is quite different to publishing design, even if the former has taken advantage of part of the latter's heritage. From an instrumental point of view, some devices prevail: legibility, text hierarchy, standard composition. The same goes for the language of film, which is very different to that of the stage or that of television, although they all drink from the dregs of knowledge of their predecessor and adopt what is most befitting to them.

The first great difference is the support. Traditional paper and its characteristics (weight, brilliance, texture) have been replaced by a bright screen, which is aseptic and changes according to ambient light. It is never homogeneous and its features depend on issues as prosaic as the model, the manufacturer or the adjustments we have made to it. In other words, our message—even if it be unique on the Net—will vary for each user. What we painstakingly design as something special becomes something subject to change, perhaps only subtly,

“It is interesting to note that all sites have start pages and yet none have end pages. As in a Moebius strip, after completing the entire three-dimensional journey we're back at the beginning”

but eventually producing different results at each visualisation. Translated onto a screen, colour—the variable that classic printing systems have taken decades to recognise and typify—only becomes an impossible approximation of light-colours accepted by all in good will, like an act, fully aware of its limitations and dependencies.

The desire and the need for tangible contents has made the use of printers essential; until recently, only for flat surfaces but soon also for three dimensions. In spite of the varied offer in printers and their complements, it is impossible for them to achieve homogeneity and to make a given colour match a chromatic range and a printed sheet. Colour on the Net is a mere conventionalism, to a greater or lesser degree, but a conventionalism nonetheless. It is funny to note how the discourse of the perception of the rods in the retina, which differs from one individual to the next, is technologically repeated in each computer and each printer, awarding them a strangely human component.

Faced with anything designed for the Internet environment, we must be aware that surfers will never view the idea being generated as purely as it was intended to be, only through more or less close approximations, and yet, oddly enough, it will not as a result lose value. The fact that the universal tool, the technological referent of modern man should come so close to the Platonic ideal concept, the immaterial world transferred to our real everyday world is quite paradoxical.

Paper format standards and sheets are no longer relevant and we have ceased to speak of reams ... and yet, contrary to what could at first be thought, not even the screen format (neither a basic nor a high definition screen) is now a part, or a window opening onto a part of a virtual task.

In the world of publications, the typography of each page obeys a hierarchy that affords it relevance and meaning: the composition of the title, the subtitle, the main text, the lead-in, the illustration and the caption, the numbering, the footnote, in short, an established order that allows the intensity of the information to be understood as it's meant to be and the desire to stress a specific way of understanding what is being conveyed. A part of this structural framework has passed into website design.

While in editorial work, composition affects the text, the image and the background, in web design these elements expand significantly thanks to contributions such as video, animation and sound, either music or dictation.

The order of continuity according to which each page of a publication guides the reader throughout disappears in websites, where abrupt jumps are usually the norm. Reading isn't linear but grid-like on the Internet; there are multiple options for following pages and there are no blind alleys, for links to other internal or external pages are always provided. It is interesting to note that all sites have start pages and yet none have end pages. As in a Moebius strip, after completing the entire three-dimensional journey we're back at the beginning.

Feedback

The line of reasoning of a website is far from being a traditional plot; it is a process of exploration and, as such, seldom follows a straight line but rather moves along paths that are continually crisscrossing, many of which will remain unexplored by most visitors. This is why it is important that each page be complete in itself, and offer a concrete packet of information but also that, in turn, it is understood as a part of a greater structure—the site that will always seek feedback, i.e. make visitors access the page again. A new paradox now arises though, as the site as a whole doesn't need a discourse of its own, but can be a platform with a miscellaneous set of separate packets of information presented together. A *mélange*.

The most significant difference between the world of publishing and web design is that in the former we are dealing with a static element, whereas the latter is dynamic. The sober pages of a book or other publications are closed elements with which readers are usually unable to interact (although there are exceptions to the rule). However, any website we may choose to visit will reveal the opportunity to engage in various forms of dialogue. A brief scroll along the screen throws up words that lead to other sites (the wonderful invention of hypertext, the unlimited concatenation of data), zooms that are activated when we move the cursor over them, texts that are highlighted, soundtracks, animated images, etc. Every website is, and will increasingly be, an artificial nature inhabited by different types of creatures determined to attract our attention.

All web design must look tempting, a characteristic taken from the world of advertising that proves indispensable in such competitive environments. Even institutional sites, that seem to compete among themselves to be the less inspiring, must have an appeal, and in the not too distant future we shall see how they are revamped. As well as capturing the attention of visitors, websites must also retain them among their pages—we should not forget that an average visit of two and a half minutes is considered a success—and use all necessary tools to do so. As a result, every commission for the Internet is a creative and increasingly promiscuous meeting point, a magician's hat where composition, video, computer graphics, programming, animation, photography, music, advertising, etc., come together to capture audiences that are increasingly difficult to surprise. All this creativity must be presented as concisely as possible, to hold the attention of users and avoid trying their patience, bearing in mind that the first thing people look for on the Net is information. They are interested in the goods, not the companies.

Spectacular Script

And this is where the Internet comes into contact with the world of show business. When designing a website we need a script that will organise the responses to users' interests and distribute information in a clear and accessible way; a

structure that will have ready answers to all possible questions and will introduce visitors to a world of information we would like to provide for them, maintaining the ability to surprise.

Every Internet site is increasingly like a small video game in which visitors make decisions almost intuitively. There is no general rule for surfing websites, only a cursor in the shape of an arrow that turns into the silhouette of a hand with an extended thumb or a square bracket for introducing text—three wonderful elements indebted to Douglas Engelbart's invention,⁸ very basic yet clearly intuitive, that allow us to travel throughout the Internet. The rest depends on designers, who must make themselves understood, and on the script, that should ensure users' journeys in search of information reach safe harbours.

Such journeys are characterised by a key element on the Internet: time. Everything has to be immediate; delay is a website's worst enemy. In the early days, web pages took ages to open, videos were impossible to see and animations were best eliminated before the eventuality of becoming a caricature of themselves as a result of jumps of the screen. Today all that is a thing of the past; nobody waits patiently for pages to download. We're even eliminating the welcome pages on sites! If a response takes more than ten seconds it loses all interest and visitors will stray. Fidelity depends on dynamism, therefore all reloaded pages break the golden rule: do not lose the attention of Net users.

The average life cycle of the *Drosophila melanogaster*—generally known as the common fruit fly or vinegar fly—spans seventeen days. It's a short life but the fly, surprisingly, finds time for everything: it is born, it reaches maturity, it reproduces, it grows old and it dies. The appraisal of time on the Internet is closer to that of the dipteran than to ours. Obsolescence has a tremendous effect on pages, compelling designers to continuously seek out timeless resources and images, or else constantly revamp pages. Deep erosion is a constant feature of the system. Either on account of their design or their contents, sites easily turn into computer scrap, which for some time will unproductively take up bytes on a server before disappearing, leaving no trace. Archaeology doesn't appear to be a theme for the Internet and seems quite complex. When the time does come to research, we shall have to look at printed editions of the remains of pages that were once unforgettable and yet today have vanished into thin air as if they had been written in smoke—the last contradictory revenge of paper.

Future websites, or at least those that will be developed in the immediate future, should carefully study the parameters examined in this article. If they're lucky and McCracken values them, next year they may be selected among the fifty best websites for *TIME* magazine. If not, they will always be able to enjoy a dignified, orderly though ephemeral life on the net of nets, like vinegar flies.

⁸ Engelbart invented the computer mouse. See *Internet Pioneers*. Doug Engelbart [online]. [Accessed: 23 September 2013]. Available at: <http://www.ibiblio.org/pioneers/englebart.html>

“All web design must look tempting, a characteristic taken from the world of advertising that proves indispensable in such competitive environments”