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## The interfaces and the time

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The interface tends to transcend the mere mediating function between the user and information, to become a liquid magma which includes the activities of human beings. It was thus that Gui Bonsiepe understood it when we spoke of interfases (with "s") in the mid 90's, when he postulated that we designers were going to stop designing objects and would instead design interfaces (or processes). For him, the "interfase" is what structures the user, the action and the object. That is, if we have to cut paper, the interface is not the scissors, but is composed of all the relationships between the context where we are cutting the paper, the lighting conditions, the edge of the scissors, the thickness of paper, the amount of paper that must be cut, and so on. According to Bonsiepe, design focuses on user's experience cutting the paper and not only in the design of the scissors.

In the 90s we were worried about understanding HTML and potential of Java to provide interactivity to websites. Later emerged the phenomena of convergence, in which phone, calendar, and computer devices were to be cast as a "smartphone". The Internet would create "prosumers", leading to social networks with users converted into producers of information for global interconnected communities, changing the public for the private and erasing the already tenuous line separating them from the Pop-Art by Warhol and his fifteen minutes of fame.

Interfaces and "interfases" were to change the culture, or digital culture, into an interactive one. De Kerkhove would argue that we live in a network ecology, where interactivity, hypertextuality and connectivity provide guidelines for our existence. It is impossible today to separate the culture of technology, the economics of science, the art of the market, analysis of the parts without understanding the whole. Complex society, in the words of Morin, does

not obey the Cartesian paradigm of simplification, but that of complexity, where the dialogic, the recursive and the holographic meet.

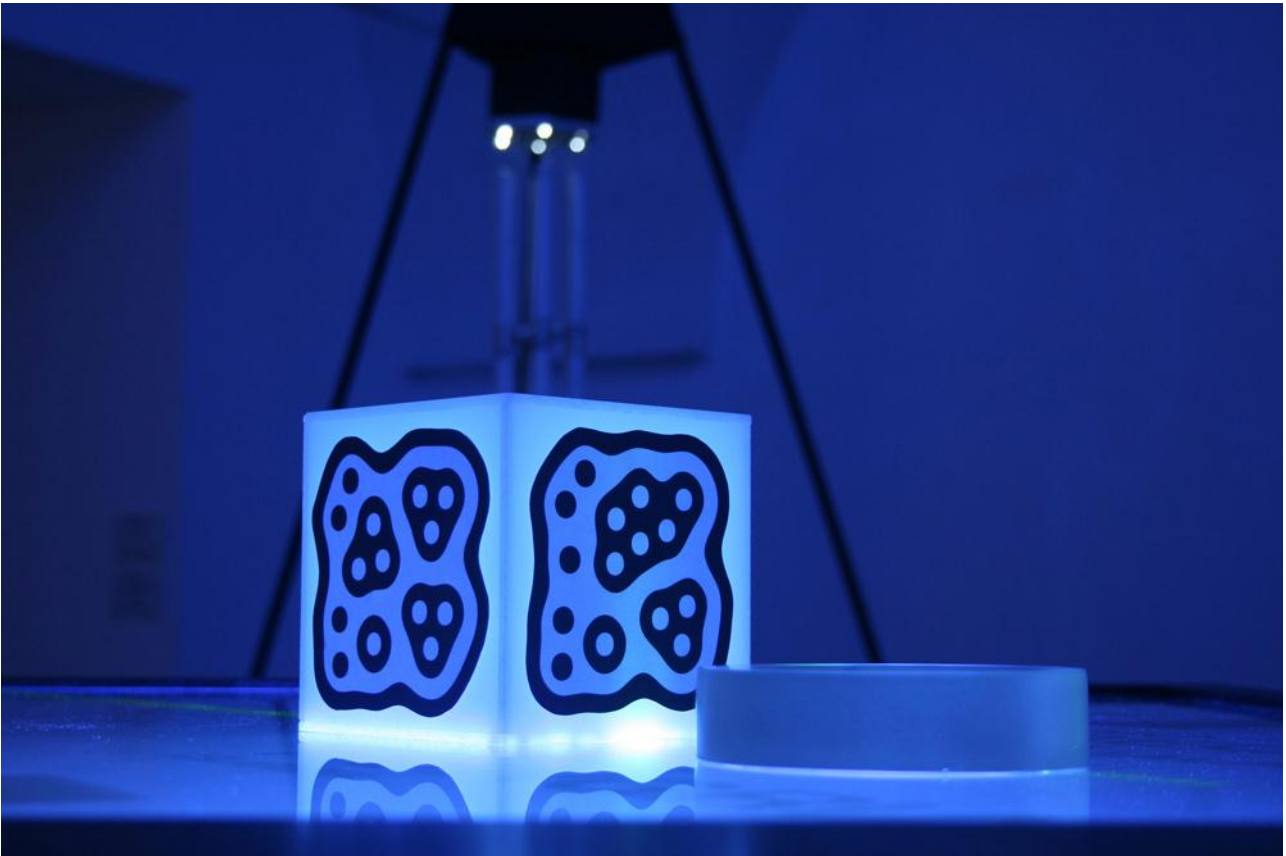
Interfaces surround us, and it is for this reason that we use them to reflect on ourselves. Thus, art provides everyday examples where, thanks to small electronic devices and programming languages that articulate key ideas, poetics can be set forth that speak of state of the world.

## Gross domestic product 2010

	<i>Ranking</i>	<i>Economy</i>	<i>(millions of US dollars)</i>
USA	1	United States	14.582.400
CHN	2	China	5.878.629
JPN	3	Japan	5.497.813
DEU	4	Germany	3.309.669
FRA	5	France	2.560.002
GBR	6	United Kingdom	2.246.079
BRA	7	Brazil	2.087.890
ITA	8	Italy	2.051.412
IND	9	India	1.729.010
CAN	10	Canada	1.574.052
RUS	11	Russian Federation	1.479.819
ESP	12	Spain	1.407.405
MEX	13	Mexico	1.039.662
KOR	14	Korea, Rep.	1.014.483
AUS	15	Australia	924.843

**Figure 1:** World Bank: GDP, by country. Source: World Bank. Available at <http://data.worldbank.org/sites/default/files/data/gdp.xls> [Accessed 20 June 2012].

The "Mundo Circular" (that means Circular World) installation is designed as a tangible augmented reality interface that shows the differences between countries in the world, using real data from six global databases, published online and available to all who wish to read and consult it. Unlike the static information that can be read through charts or bar graphs, it provides a dynamic and relational user experience, in real time, through patterns of augmented reality, previously used for other artistic goals. These patterns (Reactable) were designed to create music in real time, however, articulated with open-source languages like Processing, offer many possibilities of expression, both audible and visual.



**Figure 2:** Phase 2 Circular World, Recoleta Cultural Center, Buenos Aires, 2010. Source: Strubin, 2010.

The "Mundo Circular" problem, originally, did not reside only in the conditions of the glass upon which it would be projected, or the angle of incidence of the light (which interferes with the blobs of patterns), or overheating of the interior of the box (which contained a 2600-lumen RGB projector plus a PC connected to a computer), or the presentation of the information in terms of color and typography. The problem was encouraging users to experiment with patterns, which would allow them to become familiar with the GDP, the use of electricity, the state of telecommunications, Internet usage, and investment in education or the level of malnutrition of the richest and poorest members of society. It was a way of studying geography without a planisphere, of studying sociology without theoretical books, of studying science without a laboratory. The world is the laboratory, the information is formalized in a didactic way for the user to gain experience and then draw his own conclusions. It is a way of talking about globalization and how it is actually implemented in six factors of people's lives in all corners of the world, in every country on Earth. It was also a way of talking about globalization, putting it into perspective.

From the first experiences of Mundo Circular and its relationship with the public, we modified various aspects of the use of the patterns, of materiality, we incorporate sound when you choose one of the variables, etc.. But perhaps the most important experience was when the art installation left the academic and artistic environment, and was exhibited to the audience commonly referred to as the "general public". That experience took place in "Tecnópolis", a

Science Fair that was attended by more than two million people at the suburban belt surrounding the city of Buenos Aires, in a context of poor accessibility and apparent marginality. In this context, which has slowly been changing its socio-economic situation due to the impact of this show, an interface was exhibited that received very rich returns from the public. That was perhaps the best of verifications.

The metal structure of the table, the glass substrate, the cube and cylinder showing the patterns and even the backlight devices are already being used in other projects or were abandoned for lighter materials or that emit less heat. While the ideas, the experience and the symbolic capital transcend, the objects are transformed.

## References

Bonsiepe, G., 1998. *Del objeto a la interfase*. Buenos Aires, Infinito.

De Kerkhove, D., 2000. *Inteligencias en conexión*. Madrid, Gedisa.

Morin, E., 1990. *Introducción al pensamiento complejo*. Valladolid, Publicaciones Universidad de Valladolid.

Pimentel, D. Causa, E. Cataldi, M y Braida, S., 2011. Mundo Circular. Ejemplo low-tech de realidad aumentada e interfaces tangibles. In: *XV SIGraDi*, XV Congreso de la Sociedad IberoAmericana de Grafica Digital. Santa Fe, Argentina 16-18 Noviembre, pp. 294-297, Available at <[http://cumincad.scix.net/cgi-bin/works/Show?sigradi2011\\_382](http://cumincad.scix.net/cgi-bin/works/Show?sigradi2011_382)>.

Diegopimentelgmail, 2009. 1 [video online], Available at <<http://www.youtube.com/watch?v=voShYUF8ZUo&feature=relmfu>> [Accessed 20 June 2012].

Diegopimentelgmail, 2009. 2 - *Mundo Circular* [video online], Available at <[http://www.youtube.com/watch?v=XhAN\\_Rj77Kw&feature=relmfu](http://www.youtube.com/watch?v=XhAN_Rj77Kw&feature=relmfu)> [Accessed 20 June 2012].

Diegopimentelgmail, 2009. 3 [video online], Available at <<http://www.youtube.com/watch?v=L44AuTDJHUU&feature=relmfu>> [Accessed 20 June 2012].