

Public TV and the Digital TV System in Brazil: new perspective for science communication

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Brazil is a country with almost 200 million inhabitants, more than 93% of which has TV sets in their residence (PNAD, 2006) - a device that constitutes the main vehicle of accessing information and leisure. The year of 2007 is been closed with the implantation of the digital system of TV diffusion on 2nd of December, same day that the *TV Brasil*, the federal company of communication, has been also inaugurated. The challenges of the two projects are huge, controversial and have generated much controversy. The debate has been fed by the critics who question the real need of an onerous digital system for a country with serious social index. At the same time it inserts, however, sufficiently positive elements as it can be expected by the multiple possibilities of the use of digital resources and the increase in the quality of programming, an essential requirement for the public TV. The future interactivity and the more democratic amplitude of channels will require new niches for the confrontation of questions as the functional illiteracy and the science communication.

Shamefully, Brazil has 21 million illiterates. At the same time, it has a cruel system of income concentration that, in the education field, reverts for a tremendous quality gap between the public school system and the private ones. This abyss is illustrated in the results of the *Exame Nacional do Ensino Médio* (ENEM - National Examination of Average Education), in which the average score of students from public schools was 29% below the one from private institutions. But the education quality gets more deteriorated when it is compared with the one of other countries. The Organization for Economic Co-operation and Development (OCDE) concluded a survey on the abilities in comprehending and tackling scientific problems of 15-year-olds from 57 countries (PISA, 2006). Brazil appeared hidden in the 52nd place of the rank. Such result highlights the need to invest in science education. The students analyzed are rarely interested in any of the science disciplines offered at this education stage; recent data released by the *Conselho Nacional de Educação* (National Education Council) indicate a lapse in the education background of science teachers. For instance, only 9% of the teachers of Physics are graduated in the field, whereas in Biology, they were only 13%.

The revolution announced with the beginning of the Digital TV transmissions - at first only in the State of São Paulo - and in the inauguration of *TV Brasil* - broadcasted to the States of Rio de Janeiro, Brasília and Maranhão - open a new set of challenges to the content producers of the country. The work ahead is, at a more immediate moment, to fill in the vast availability of time of the program schedule of the public TV that will unify some contents of current public TV channels. The new transformations will be led by a new staff that makes use of new political projects to set the tone of the programming. Without relying on the technical difficulties of this double novelty establishment - the digital system and the federal communication network- science communicators throughout the country expect that this privileged space of communication and transmission of contents can, at last, be better used.

The Digital TV should increase access to distinguished programming by the population. This way, and with the presence of a strong public TV to compete for quality, the television viewers will have the possibility to escape from the attraction net used by

great commercial corporations. Currently, they dominate the regulation of open channels and, therefore, have been crystallized in their position since they are worried about the triple alliance: TV viewers/consumers/share. With more freedom to create programs and investments in quality contents focused on education and public interest, the public broadcasting can be an essential motivator to revert that scenario.

Amongst the current open channels available in national range, there are 4 religious groups (Rede Mundial, Rede Vida, Rede Canção Nova, Rede Record), 5 private groups (Rede Globo, SBT, Rede Band, Rede TV!, Rede CNT/Gazeta), and also a group with a public education profile (TVE-RJ, kept by the Federal Government). According to Sousa (2006), there is a potential of 100 million viewers to the TV broadcasting with public and education profile.

The expectation is that it will be possible to add science subjects to a set of attractive programs with technical quality, aesthetic and good content. Currently, the science communication presented in specific programs of the national TV is restricted to the public and communitarian channels or are broadcasted at unattractive hours, as the ones that belong to private TV. Perhaps the best example is the science program *Globo Ciência* (from the main Brazilian TV broadcasting, TV Globo), broadcasted on Saturdays at 5h40 a.m.! In open channels, science is restricted to the news with almost absolute predominance of subjects related to health, where they are shown as a panacea and are generally portrayed in a sensationalist and superficial way, with lack of criticism. There are, however, examples of good programs aimed to popularize subjects as public health and history of science, as the case of sketches presented at one of the most watched programs in Brazil, *Fantástico* (Rede Globo) – broadcasted on Sundays to an average public of 40 million people. In the same way, one notices that the TV news have treated scientific subjects with more seriousness, by looking for sources or consulting support. In general, however, the specific programs on science and technology are concentrated in paid channels and, therefore, are far away of been accessed by most of the population.

Growing public

The interest in science and technology (S&T) has gradually increased in Brazil, which reflects its own participation in the worldwide science that has also risen currently representing 1.92% of the total. This result places the country in 15th place ranking of the international production of science paper, a growth of 33% in relation to the two previous years (Capes, 2006). A survey on Brazilians' attitudes toward S&T developed by the Ministry of Science and Technology (MCT) indicates that 41% of Brazilians declare themselves very interested in S&T - within 60% are interested in medicine and health -, against 20% that have declared being much interested in politics, and 47% in sports. On the other hand, 36% declared not having "any interest" in political subjects, and only 23% declared not having any interest in S&T.

Although Brazilians are not traditionally interested in reading and expend less than one hour per day doing it, the increasing variety of magazines that deal with science available in the newsstands is a consequence of a rising demand for the subject in the country. Currently, there are more than ten magazines, among which it can be mentioned *Ciência Hoje*, *Superinteressante*, *Galileu*, *Pesquisa Fapesp*, *Scientific American do Brasil*, *Cérebro e Mente*, *Nossa História*, *História Hoje*, besides the new *Astronomy* among a set of others whose profile sufficiently shows the specialization and segmentation of the public.

There is, however, a huge gap that can be filled in by science communication in an attractive, creative and serious way, in order to motivate reflection, debate and - why not? - transforming educative intentions. The *TV Brasil* and the new demand for programs created by the digital TV will be, in the next years, a unique chance for science and technology communication. Mainly to the ones that belong to the less traditional or distinctive patterns that have been practiced.

Data from 2005 show that Brazilians remain about 5 hours and 25 seconds per day in front of the TV (open channels, paid channels or watching DVD) (PNT, 2005), a period of time that has only increased in the last years. Despite the great exposition to TV, and admitting that the TV is the main source of information on S&T, the Brazilians said they are little informed on the subject (MCT, 2007).

It is about time, therefore, to include this media on a more vigorous and consistent matter in the agenda of science and technology communication and popularization. This is, surely, an efficient and guaranteed way of penetration of S&T contents, contributing to expand the debate and the world understanding, allowing a way to stimulate awareness and reflection on subjects that are part of our daily life, yet they are little or not clearly understood by the great majority of the population.

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