Re-thinking the gap: electroacoustic music in the age of virtual networking

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More than colors and forms, it is sounds and their arrangements that fashion societies. Attali, J. (1985). *Noise: The Political Economy of Music*. United States: University of Minnesota Press.

1. Communication

Artistic creation, scientific research and technological innovation represent three different "areas" whose boundaries seemed to be well established in the western culture during the past few centuries. Nevertheless, whether because of a real interest, necessity or fashion, these fields have met again and are now associated to continue deepening the cultural changes caused mainly by our use of recently-evolved electronic technologies.

Electroacoustic music is an interesting example, merging art with electronic technologies and even scientific knowledge. From isolation to virtual networking, today's life is different from what it was a few years ago. Previously, an electronic music centre was a place for sharing knowledge and sophisticated equipment as well as a networking space to meet colleagues and maybe start collaborating on new projects. Today we have other options. We take for granted e-mail communication and we increasingly use online community-based systems (e.g. MSN, Skype, Facebook) to chat, share experiences or even meet people and work on projects .

After an exploratory period, artists using new media (including electroacoustic music composers) have been slowly entering a new stage of refinement. But the past is not only different because of the tools; we are different too. We expect to access information as never before. If information or "knowledge" is not available on the Internet, does it really exist? Maybe we are not that far from arriving at that point where people around will ask themselves that question, at least those living in highly populated cities with access to the newest communication technologies.

We are living in the transition period to something else, but we don't know what it will be. Will the future find the world divided according to the access to digital information and communication systems? What will be the place for electroacoustic music in the future, still an art for an elite? Who cares about it if most people don't even know that it exists?

2. Culture and industry

From music to media arts and back into the sound world, one key point to remember is the development of audio recording technologies and how this changed the way to make and listen to music.

Music, mass communication and new economy trends found their way together making a big world revolution, creating a powerful industry around music recording. For the first time humanity was able to fix a moment in time and to retrieve at least part of it later.

Music is essential, a constituent to each culture. It identifies a group or society. It is also a means of power, colonization and domination that the audio recording technologies have been helping to develop. We all know the tremendous impact of those technologies in the world, involving pleasure, politics, power and money.

The audio recording and the sprouting of the music industry as a business on a worldwide scale have been defining the taste of hundreds of millions of listeners, conditioned by the iterative broadcasting and recording distribution of a very limited set of musical expressions. Concerning the recording industry, multiculturalism and diversity of styles and aesthetics are extremely restricted and conditioned to the market's laws. The diversity in terms of genres and styles on the available recorded music has been more apparent than real.

Los riesgos están presentes: la concentración asimétrica en la producción cultural y la generación de ingresos. Entre la Comunidad Europea, los EE.UU. y Japón se quedan con el 87 % de las ganancias producidas por los bienes culturales y comunicacionales, quedando el 13% restante a todos los otros países del mundo.

The risks are present: the asymmetrical concentration in the cultural production and its income generation. The European Union, the United States and Japan get 87% of the incomes produced by cultural and communicational goods, leaving only 13% to all other countries in the world. [RDF free translation]

García Canclini, N. (2002). Latinoamericanos buscando lugar en este siglo. Argentina: Paidos.

The turntable and audio recording technologies, later associated with the radio mass broadcasting, were not only the basis of a global revolution but also the trigger of major transformations in our approach to music creation. Electroacoustic music was born from the explosive social, political and economic changes that marked the turn of the nineteenth into the twentieth century, combined with the aesthetic renovation and strong artistic transformations of that period and the historical appearance of the electromechanical possibilities to fix sounds in time.

People coming from the music as well as the scientific and technological world met to conceive this music, where knowledge, capabilities and skills from many different disciplines are usually collaborating to develop interesting new paths for experimentation, research and creation. This creative and experimental hub is always in advance of what the music market consumes and does not receive support from the music industry.

Electroacoustic music is a field that joins creativity, technical expertise, new technological development and scientific research, pushing the limits concerning the definition of music, human perception, technological advancement and the interplay between art and science.

3. Networking and creation

Are the new communication and information paradigm shifts changing our way to create, research and innovate?

From musical theatre to multimedia performances, the musical world involving electronic technologies has been rich in creativity and ways of expression. Already several decades ago, some experimental musical scores were including lighting and visual parts, largely exceeding the traditional boundaries of concert music notation. Mauricio Kagel, among others, broke many of those established musical boundaries throughout his professional career. Media arts historical research is slowly starting to recognize, in the special relationship between music and electroacoustic technologies, a fundamental role in the development of new art forms. The concept of the total artwork at the end of the nineteenth century evolved into myriads of multimedia performance modalities in the twentieth century. The title of a well-known book about the recent history of art and technology: *Multimedia: From Wagner to Virtual Reality* (2001) by Randall Packer and Ken Jordan (United States: W. W. Norton & Company) is showing us that in brief.

More and more, modern communication tools are facilitating the discussion around new ideas and the development of innovative research/creation projects thanks to collaborative initiatives based on the access to distributed knowledge and colleague's cooperation. We can find a clear antecedent in the exchange of letters between scientist or artists from centuries ago, but the human interaction we have achieved today, where we can reach thousands of people with the same message, question, project, plan, problem or proposal in a matter of seconds, have changed the way we build our communities. We may never have seen in person a colleague that is helping us to solve a problem or complete a work, or we can develop a long-standing friendship with people we have seen maybe once in our life but that highly sophisticated communication tools are helping us to feel close, even much closer than they maybe really are. We see their names everyday in our MSN or Facebook or iChat or... you name it, but maybe we didn't speak to them for years. In any case, they are there, and suddenly, one day, we contact them again, and we exchange files, and we talk about this or that, and we decide to work on a project together. The scale has changed, the timescale has changed, and everything seems to run faster today.

Mobile telephony and Internet-based information and communication technologies are allowing us to contact, discuss, share and work together with people, even if we are 10,000 miles from each other. Also, we find there the new media to be explored as a potentially different artistic canvas, the media where we can exhibit, and much more if we want. We can allow interaction with our artworks, providing access and control over the elements we decide to make available to others, and of course, we can decide how much those elements can be transformed.

Music, after the recording technologies became available, has changed. The same tools that made possible to fix ancient music on a support to be able to recall it later, became the basic tools to create, transform and re-create music, thus developing a new language, rethinking once again our current time and our contemporary culture. From analog to digital, from real presence to telepresence, from a live orchestra performance to an interactive web-based music making work, the eternal spiral of knowledge is offering new possibilities that we now need to learn how to use.

4. Linking knowledge

The following projects have been built up aiming to explore and provide platforms of knowledge sharing, information exchange and collaborative work developments between artists, scientists and technology innovators concerned in studying the potential and effective richness of merging their different areas of interest. These projects have become a

reality thanks to the endless possibilities of this age of virtual networking. The ways to plan, to collaborate, to develop, to share and even to create, have different possibilities today thanks to the virtual communities we are all part of, at least all who are reading a paper like this one. Electroacoustic music is not out of this picture; we use networking tools for consultation, for collaboration, for dissemination, and we even send audio files to be processed somewhere else with tools we don't have, without knowing really where they are going sometimes. Yes, they are someplace in cyberspace. Is a new era where a "bit" is our unit, and that unit can be part of a text, a calculation, a video or a sound file. We count on the potential of our virtual communities to work today, even if most of the times the compositional work is still a solitary work. We must remember that in part that was changed, especially during the early decades of electroacoustic music when the composer used to meet in the studio with a technician or engineer who was able to give support to his/her creative ideas. Today the learning curve also has changed, as it is the way to reach very complex results in a short period. And many of those facts have been possible thanks to the Internet and its contribution in knowledge distribution and sharing.

The projects I am including below are part of this community-building thinking. All of them were created based on totally different possibilities, infrastructure, resources and up to some point, also with different goals on mind.

- (a) CEIArtE (http://www.ceiarteuntref.edu.ar/), the Electronic Arts Experimenting and Research Centre at National University of Tres de Febrero, Argentina, is focused on: [1] media arts research, creation and dissemination projects. Some examples are: BaDArte (http://www.ceiarteuntref.edu.ar/badarte/?q=taxonomy_dhtml), a database for artists/researchers looking for electronic-arts oriented resources; [2] an online publication of research/creation papers and interviews; and the organization of events like [3] the ECI series (ECI: Encuentros de Colaboración e Intercambio – Electrónicas, Electronic Meetings in English: Arts for Exchange http://www.ceiarteuntref.edu.ar/?q=eci03) and [4] the EMS09 (Electroacoustic Music Studies Network) international 2009 conference held in Buenos Aires. CEIArtE is also developing online tools and resources to improve the communication between artists/researchers from Latin America and beyond (including the online publication of the proceedings for the EMS09 conference).
- (b) redcatsur (http://redcatsur.net/mailman/listinfo/redcatsur) is a network of artists, scientists, engineers and theoreticians promoting communication and collaboration in art, science and technology around Latin America. redcatsur welcomes discussions and critical analysis in the field of art, science and technology redcatsur proposes itself as an space to promote cooperation, aiming to facilitate collaboration and supporting the development of regional and international research/creation projects, mainly within Latin America but open to individuals and organizations from all regions.
- (c) Amauta (http://www.amautaproject.org/english/) is a project formerly affiliated with the Centro Bartolomé de las Casas in Peru, serving the mestizo and rural communities from the Andean region around Cusco through residencies, exhibits, and workshops both for city-based young professional artists (http://www.amautaproject.org/english/educacion.htm) as well as motivated peasants living in isolated regions (http://www.amautaproject.org/english/ccachin_info.htm). Artists and researchers from Peru, Canada, Argentina, the United States and Spain have been participating and contributing to this project.

The redcatsur and Amauta projects were created and developed by international teams. And all these three projects have been promoting and supporting not only the dissemination of electroacoustic music and in general terms, of electronic arts, but also have been creating conditions to improve local, regional and international communication to promote distributed artistic and academic projects.

5. Building our future

The abovementioned projects are related to electroacoustic music creation, documentation, performance and/or dissemination, considering it under the wide umbrella of the new media arts.

Will the future find the work done with those projects positive or disruptive, educational or artistic, exploratory or useless? Most of it together? Something else?

Between the isolation of the Andes' mountains in Cusco and over-populated cosmopolitan cities like Buenos Aires there is much work to do. The geography is different, the people are different, the needs are different, but there are also many factors in common, and our search for communication, sharing and cooperation as human beings and artists has no end, and we use all the available tools for research and for creation. These projects are all possible thanks to the advanced communication technologies and virtual communities tools we have today. And we have been exploring them, and using them to achieve a large number of our anticipated goals. Our world is changing fast, and the way electroacoustic music has been in the last few decades is changing too. Even if electroacoustic music is a very innovative artistic product, as new generations come, new perceptions come too, and a new or different way to see, and a different way of listening to, and to think are here too. When you realize that maybe you have learnt something, possibly everything is undergoing change again... and again... and again.

Will electroacoustic music be taking part in the definition of our future?

Will music still be taking part in the definition of our future?