

During EMS07, a talk was given entitled “A Future for EARS: Going global and providing didactic opportunities”. This involved demonstrating the site for the greater part of the talk as well as exemplifying aspects of the project’s future. An extended version of this talk is being published in September 2007 in the inaugural issue of the Journal of Music Technology and Education (<http://www.intellectbooks.co.uk/journals.php?issn=17527066>); another version was published in the 2007 Proceedings of the International Computer Music Conference, Copenhagen (volume 1 : 141–144). The ICMC article follows below.

THE ELECTROACOUSTIC RESOURCE SITE (EARS) APPROACHES ITS NEXT PHASE: GOING GLOBAL AND ADDRESSING THE YOUNG

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ABSTRACT

The ElectroAcoustic Music Resource Site (EARS, www.ears.dmu.ac.uk) research team has completed a major phase of development and is about to embark on its further internationalisation as well as the creation of a significant new multi-faceted resource for people of all ages, in particular young people, who have little to no experience with this diverse musical corpus.¹ This paper summarises the project’s points of departure, significant recent developments and accomplishments and describes the exciting path ahead, not only focusing on EARS’ *raison d’être* as a resource hub, but also looking at the planned combination of didactic methods which will support: access to appreciating the music, interested parties’ first creative experiences as well as a holistic pedagogy to further understanding.

1. BACKGROUND

Much of my career has been spent addressing issues of access to new, challenging forms of innovative art. Like many ICMC visitors, I have needed to address my particular focus from artistic, scholarly and, from time to time, technological developmental points of view.

Making innovative music, in the current case electroacoustic music, accessible is a complicated phenomenon. One needs to identify why a significant amount of the music is of marginal importance to today’s society. This identification process involves both societal factors as well as musical content and presentation issues as well. Societal factors include to what extent schools, particularly at primary and secondary levels, acknowledge the existence of these sorts of music and to what extent our communications media support it. Although many agree that digital electroacoustic sounds are ubiquitous today, the gap between current and potential appreciation and participation levels remains quite substantial.

The EARS project was conceived of during the first two years of this decade. The idea was to create a resource to help counteract this unfortunate state of affairs. The Intention/Reception project (presented under 3.2.1 below) and the recently launched development research leading towards the provisionally named “Sound Organiser” audio software (presented under 3.2.3 below) are two related projects based in the Music, Technology and Innovation Centre (MTI) at De Montfort University (DMU) in the UK. As will be demonstrated, these three projects are to be merged within the EARS framework in the near future.

¹ Electroacoustic music is used here in its broadest sense referring to any music in which electricity has had some involvement in sound registrations and/or production other than that of simple microphone recording or amplification (EARS, first definition) thus including relevant forms of popular music.

1.1. The Original Concept

The basic idea behind EARS was the following. When studying electroacoustic music it seemed that finding literature related to technology and to history were much easier than finding literature related to works and musical issues. The planned resource site was to help fill the gap whilst delineating the field of electroacoustic music studies, a field that has perhaps existed for ages, but which has not acknowledged its existence adequately until recently. The EARS subject index would offer a potential architecture of this interdisciplinary field. This combination of bibliographic and index information would aid access for specialists, but there was more. The site would also contain a subject glossary including definitions demonstrating inconsistent usage of terminology.

It must be admitted that we were not the first at the post in terms of a glossary project. The UQAM (Montreal) “Dictionnaire des arts médiatiques” (www.comm.uqam.ca/~GRAM/) was commenced before EARS. Its area, media arts, is broader and its content more compact. This project is developing apace and an “Encyclopédie des Arts Médiatiques”, led again by Louise Poissant, has been announced (www.teleinfo.uqam.ca/projets/gram/) which is receiving support from Hexagram in Montreal.

To summarise: EARS was set up to include a glossary, a subject index and a bibliographic resource that would be searchable using the subject index. In this way people could find literature related to their own interests and find out who was working in an area similar to their own. Users could also discover on EARS where potential gaps in research exist. This all sounds fairly ambitious. In fact, we have gone beyond our initial goals as will now be demonstrated.

2. EARS: THE FIRST FIVE YEARS

My original point of departure was to investigate both the feasibility of the venture and to identify the extent of international interest in terms of potential scholarly support. In other words it was important to set up an international steering group for the project before embarking on something of this scope.

2.1. Setting Up the Consortium

I contacted a number of people around the globe to get initial feedback and was startled by two things. Many established figures in the field had trouble envisioning what EARS was to achieve, as they found the current history/technology bias acceptable. Others felt that their country or language region had done too little work to play a major role in the project therefore suggesting that membership on a potential steering committee would be premature. (Of these it has now been proven that the majority were wrong.)

The Arts and Humanities Research Board (now Council, AHRC) supported visits to Germany, France, within the UK, Canada and the US in 2001. The initial consortium of Kevin Austin, Marc Battier, Joel Chadabe, Bernd Enders and Simon Waters was established. These individual meetings involved the verification of the role of EARS and the creation of a phased development plan alongside identifying the parameters of the tasks of consortium members. To achieve EARS's original goals, a two-phase plan was developed. In phase 1, the glossary and related index were to be implemented. Phase 2 allowed the continuation of phase 1 work and, more importantly, the creation of the EARS bibliographic section. Phase 1 involved a part-time postdoctoral researcher engaged for the period of only six months, a challenge to put it mildly; phase 2, again AHRC supported, would involve two staff members' and two postdoctoral researchers' support over a period of three years commencing 9/04.

2.2. EARS – Phase 1: Creating the glossary and the index

During the initial six-month grant period, Simon Atkinson joined the project as postdoctoral research fellow. He is now co-director of the EARS project. The two of us developed the original site (in LaTeX); it consisted of 360 defined, 165 referred terms (i.e., see 'X'), and 375 keywords some of which appear more than once, according to context. Clearly an editorial method was needed to aid decisions concerning which terms were seen to be relevant to the site and which were not. Similarly, some definitions might be too technical or unrelated to the site's objectives; so there, again, an editorial policy was created. Unlike today, we then decided to create terms for the glossary only. Currently all non-referred terms are included in the index even when there is no bibliographic item that points to it. Referred items also include translations as, for example, *écoute réduite* refers to reduced listening (although *musique concrète* obviously remains in French). This was a highly intensive period and we built up quite a network of support from individuals internationally interested in terminology issues.

The creation of the index was, as I have often said, the most complicated pattern matching exercise I have ever undertaken. The day when the six highest-level terms were decided upon was quite a milestone in the EARS project's history.

The following main headers were chosen:

- Disciplines of Study (DoS)
- Genres & Categories (G&C)
- Musicology of Electroacoustic Music (MEM)
- Performance Practice and Presentation (PPP)
- Sound Production and Manipulation (SPM)
- Structure, Musical (Str)

Walking through these very quickly, the first header clearly underscores the fact that the field of electroacoustic music studies is extremely interdisciplinary, more so than is the case with music in general. Currently EARS has twenty second-level entries ranging from Acoustic Communication and Acoustics at the top of the list to subjects ranging from Philosophy, Music Education, Media Theory, Music Cognition and Complex Systems and all entries that fall under these twenty fields. The one field that is missing here is Musicology that has its own main header.

The Genres and Categories section of the site was originally set up as a nested list, that is, some of the items were said to fall within the horizon of one or more others. We have found this approach to be counterproductive and have subsequently dropped it. What is interesting here is the fact that most terms are categories, not genres. In other words, genre terms tend to be either highly ephemeral or have simply not caught on, a peculiar situation.

The Musicology of Electroacoustic Music section has the following second level headers:

- Aesthetics
- Analysis
- History of Electroacoustic Music
- Music Criticism
- Music Theory
- Philosophy of Music
- Socio-cultural Aspects of Electroacoustic Music

Underneath these, many terms are rather predictable; areas covered range from Listening Strategies to Representation to Schaefferian (and others') Theory to Discourse and Access issues. Most bibliographic items point to at least one MEM entry.

The final three headers involve performance and construction aspects. Many of these come closest to the technical papers referred to above. Still it was found quite important to include the terms and thus these main headers in EARS for those references that discuss any of these areas from a musical point of view.

Ever since the project went public at the end of this first phase, there has been a link for users to suggest new definitions and new terms (and, later, references). An often-heard question is why we are not using the Wiki approach to user input. Making choices on EARS is a non-trivial task. We would easily run the risk of multiple terms signifying a single concept if we 'let go of the reigns' or publish definitions not entirely appropriate for usage on the site. An editorial filter seemed to be the most efficient approach. The first important EARS publications ([1], [2]) appeared shortly after EARS first appeared on the Internet.

2.3. EARS – Phase 2: Adding resources and internationalisation commences

2004 was the year of accelerating and expanding the EARS project. Postdoctoral researcher, Pierre Couprie joined the research team that year and has since become our webmaster; Rob Weale joined in 2005. The main role of the two new researchers was to join the directors in entering relevant texts and information on other media into the bibliography portion of the site. This involves abstracting the item in question and the careful choice of keywords from the index to aid search queries. When ICMC07 takes place the site will contain ca. 3000 entries. This year a significant update of the glossary and index has taken place (Atkinson) and EARS now consists of more than 500 terms.

We improved our data handling system for the site by choosing SPIP (www.spip.net). Until now the only restriction we have discovered is that it does not deal with complex searches easily.

Our original intention was to focus on the most international language, English. However, the interest related to translation that developed was such that the first steps were taken towards internationalising the site. This involved three areas of translation: 1) the glossary, which is currently available in French (Couprie) and Spanish (Ricardo Dal Farra). This meant that complete index lists were also created in both languages.

At a consortium meeting, Marc Battier suggested the creation of 2) a 'thesaurus' for electroacoustic music terminology. Laura Zattra provided the Italian list and Martin Supper the German list, so the thesaurus has gone online in five languages for the time being. There are already plans to investigate a Mandarin translation of both the glossary and index (a priority area for Unesco – EARS forms part of their DigiArts scheme) under the guidance of Kenneth Fields, and German, Italian and Greek glossary translations. We are of the belief that the more we attempt to link international terms, the greater the debate should become concerning their consistent usage.

As we were suddenly involved in a significant, unplanned phase of internationalisation, key colleagues suggested that the next obvious step should be taken, namely 3) entering any bibliographic entries in their original language along with the English entry. In other words, any German publication entered now appears in German and English; English language publications only appear in the one language.

Finally, EARS has become an online publisher starting with a Portuguese translation of Schaeffer's "Solfège de l'objet sonore" (Antonio de Sousa Dias), two EARS-related articles and the planned publication of John Dack and Christine North's English translation of Michel Chion's "Guide des objets sonores" and other texts. Several other online publications are planned. The EARS consortium has undergone significant changes and now consists of Battier and Chadabe from the original group plus Ricardo Dal Farra (Argentina), Kenneth Fields (China), Rosemary Mountain (Canada) and Martin Supper (Germany).

3. MOVING FORWARD

That is where EARS stands at the moment. What is exciting is its future. Although the current funding ran out in August 2007, we expect to find support for two key initiatives. One is a clear evolution of the current site and the other, a project with three constituent parts, is a means of increasing access.

3.1. Further Internationalisation of EARS

To internationalise EARS further we will need to find regional support to add language areas' resources and glossary/index translations. This will occur whilst the team, which has no intention of dropping the project, will continue keeping EARS up to date and dynamically developing the glossary and index. We will be at the mercy of interested parties, however, as it would be odd to request funding in the UK to support, for example, the entry of Scandinavian resources.

3.2. Addressing the Youth and Other Interested Parties

The more radical departure for EARS is its planned pedagogical developments for novices to the area. Inspired by the MTI's research partner, INA/GRM's CD-ROM *La musique électroacoustique* [3], we are aiming to focus on that publication's foci of *listening*, *understanding* and *doing*. Unesco and two DMU Institutes have now contributed to the project; our software project (3.2.3) has received seed funding allowing a prototype to be created and more substantial support will be sought with the GRM in late-2007. These three foci will be introduced separately now; however it should be evident how they will be dynamically interrelated during the project.

3.2.1. *Listening and creating access: The Intention/Reception project joins EARS:*

The Intention/Reception (I/R) project was launched at ICMC 2001 [4]. It has now 'come of age' by way of Rob Weale's PhD research [5] and two significant related publications [6], [7]. The goal of the project was originally to develop a methodology to investigate two things: to what extent electroacoustic music might be accessible to a public larger than the one much of it reaches today and to what extent composers' intentions are being received by listeners with different levels of experience with this corpus of music.

There is insufficient space to go into any depth here. Works that include (perceived) identifiable sources have been used as testing material thus far leading towards remarkable results demonstrating that in all investigations, a majority of listeners who had never heard such music in the past were interested in finding out more about it and also a majority of the listeners found being offered intention information useful in terms of their gaining access to the works.

Since completing these publications, we have started working with Kate Stevens of the MARCS Auditory Laboratory at the University of Western Sydney. We intend to add psychological tests to our methodology creating a curriculum tool that can be altered to take cultural elements into account. This is intended to act as a means of helping people across the threshold in terms of electroacoustic music appreciation. Appreciation, however, cannot live within a vacuum, especially with the young. They also need to participate creatively and, ideally, understand that which they are making.

3.2.2. *Supporting understanding: EARS II*

Imagine EARS with a vastly reduced set of words in its glossary and all of the 'bells and whistles' our multi-media environment has on offer. Pedagogical EARS will introduce a 'learning by hearing and doing' environment to provide young people and inexperienced people of all ages the opportunity to come to grips with the basic concepts and approaches in our field. It will, as the I/R aspect of the project, be translatable and adaptable to local knowledge.

Kenneth Fields has suggested a clustering approach to the EARS ontology's approach [8] which would make the learning experience not only more attractive but also help students see how things fit in the greater scheme of things. This will certainly aid understanding. DMU's Institute of Creative Technology is actively supporting the development of EARS II.

3.2.3. *Doing: Sound Organiser – Creative pedagogical audio software for sound-based music*

The third and final area of EARS's pedagogical triad is that of doing, that is, being creative with sounds. John Anderson and I have started designing a prototype for *Sound Organiser*, audio software that is based on a computer games approach. The higher the level one reaches, the greater the palette of opportunities and challenges on offer.

This is to become a highly user-friendly package using a visual interface that makes no assumptions about people's knowledge of FFT spectra and the like. DMU's Centre of Excellence in Performance Arts supported the prototype research. The GRM intends to support the full-scale project in the future along with other partners. In this way, what is learned on EARS II or heard by way of the I/R project can be applied creatively in a friendly, didactically innovative environment. *Sound Organiser* will also be linguistically and culturally adaptable.

4. BRIEF CONCLUSION

The EARS team is highly excited about how far we have come over these five years, how much our initiative is being used and how the future of the project is looking. After giving a lecture recently I was once told by a tutor that he

wished we hadn't created EARS, as his students' lives were made too easy with all of this knowledge available on the web.

This talk is timely as it was six years ago that the I/R project was announced at the ICMC and five years ago that EARS really got started. Last month the first book based on EARS was published [9]. When the ICMC ends this year, EARS will move on to its next exciting phase. We hope that it proves to be very useful to today's electroacoustic music community and, in particular, tomorrow's through its innovative approach to pedagogy for the young. We also hope that the work that so many in the ICMC community are passionate about gains the interest it deserves and a more substantial community, whether face-to-face or virtual, in terms of its understanding and appreciation.

5. REFERENCES

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