



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Domain 1 Research Questions

Case Study 13: *Obsessed Again...*

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1.1 What types of documents are traditionally made or received and set aside (that is, created) in the course of artistic, scientific, and government activities that are expected to be delivered online? For what purposes? What types of electronic documents are currently being created to accomplish those same activities? Have the purposes for which these documents are created changed?

- The case study final report does not discuss the difference between traditional and digital processes and products.
- However, it can be inferred that traditional music composition usually results in a written score, and usually also a series of drafts, sketches and notes made prior to the final version.
- The traditional score is created to provide performers with the necessary instructions to reproduce the piece as intended.
- Electro-acoustic music composition results in several types of digital entities. In the case of *Obsessed Again...*, the following digital entities are created:
 - A representation of the score (the case study report is not clear about the format of this representation)
 - The software patch for Max/MSP containing a digital description of the computer ‘instrument’ and MIDI sequencer data
 - A Proteus/Librarian file describing the sounds to be used by the Proteus 1 synthesizer
- As with traditional scores, the score for *Obsessed Again...* is created to provide a performer with instructions to perform the piece as it was intended to be performed. The additional digital entities serve the same purpose in that they describe how all of the components of the work – including the performer, a microphone, an IVL pitch-to-MIDI converter, a Macintosh computer with MIDI interface running Max software, an external

Proteus 1 synthesizer and a second amplification system – interact with each other to reproduce the performance.

- Although the purposes for the creation of documents have not changed with the advent of digital technology, additional documents are now required in order to fully describe the piece to be reproduced.
- It should also be noted that part of the purpose for creating *Obsessed Again...* was to fulfill a performer's commission.

1.2 What are the nature and the characteristics of the traditional process of document creation in each activity? Have they been altered by the use of digital technology and, if yes, how?

- As mentioned above, the case study report does not describe traditional processes of creation.
- The case study report indicates that the compositional process for any piece of music is unique. However, the report also states that the process can be generalized as follows:
 - Pre-compositional ideas (overall form of the work, basic pitch and harmonic content, nature of interaction between computer and instrument) are sketched using paper and pencil.
 - Interactive elements are created using appropriate software.
 - Interactive elements are tested. Based on the results of these tests, the score and/or the elements will be modified as necessary.
 - Final versions of digital elements are created.
 - Final score in digital format is created.¹
- The traditional compositional process can be seen to have been modified by the addition of new steps to accommodate the use of digital technologies. Where the traditional process may have included testing and modification of the score following rehearsal with instruments, the creation of electro-acoustic music includes the development of many of the interactive elements that will ultimately make up the final work.
- The addendum to the final report explains that while traditional instruments generally remain available for use for long periods of time, technological elements are “almost guaranteed to become obsolete within a very short period of time after the work's creation.”² As such, older technologies are routinely discarded as new technologies become available.

¹ New methods of notating the score are being worked on to facilitate the preservation of the composer's intentions for the piece.

² See Appendix 1: Towards a Strategy for the Preservation of Electroacoustic Music, in the final report.

1.3 What are the formal elements and attributes of the documents generated by these processes in both a traditional and a digital environment? What is the function of each element and the significance of each attribute? Specifically, what is the manifestation of authorship in the records of each activity and its implications for the exercise of intellectual property rights and the attribution of responsibilities?

- Formal elements and attributes of the documents are determined by the specifications of individual software programs:
 - NoteWriter, Max/MSP and Editor/Librarian files are proprietary file formats, so their specifications have not been made publicly available.
 - NoteWriter software has been replaced by NoteAbility.
 - Max patches were originally written in Max version 2.0, and later written in Max/MSP version 4.2.
 - The Editor/Librarian file is written in version 1.0 of the Galaxy Editor/Librarian
 - MIDI files used by the Max/MSP patches follow the MIDI specification which is available at <http://www.midi.org/about-midi/specshome.shtml>.
 - MIDI sequences are created in Performer version 5.5
 - Because these documents are created using proprietary software, they are generally only able to be accessed using that software.
- Each element and attribute contributes to the description of the piece as a whole.
- The composer is the author and sole possessor of all digital entities produced during the composition of the piece. External users do not have access to the master copies of the digital elements used to create the piece. The composer's authorship is protected under copyright legislation. It is not clear from the final report whether, or how, authorship is manifested in the individual records themselves.

1.4 Does the definition of a record adopted by InterPARES 1 apply to all or part of the documents generated by these processes? If yes, given the different manifestations of the record's nature in such documents, how do we recognize and demonstrate the necessary components that the definition identifies? If not, is it possible to change the definition maintaining the theoretical consistency in the identification of documents as records across the spectrum of human activities? In other words, should we be looking at other factors that make of a document a record than those that diplomatics and archival science have considered so far?

- The Diplomatic Analysis of this case study concluded that the computer code (the MSP/Max patch) is a record because it is the by-product of the act of musical composition, is fixed on the composer's hard drive, and is set aside by the composer for future use or reference. The Diplomatic Analysis did not examine any of the other digital entities created during the composition of the piece.
- Although the Diplomatic Analysis did not consider the other digital elements, these too meet the requirements for the InterPARES 1 definition of a record, in that they are saved to the composer's hard drive in a fixed and final form, they participate in an action, and they possess an archival bond with other entities created as part of the same

compositional process (each digital entity is identified according to the piece to which it belongs, and to the point in the process at which it was created).

1.5 As government and businesses deliver services electronically and enter into transactions based on more dynamic web-based presentations and exchanges of information, are they neglecting to capture adequate documentary evidence of the occurrence of these transactions?

- The composer of *Obsessed Again...* does not have the same responsibilities to capture documentary evidence of his actions. However, it is in the best interest of the composer to document as completely and accurately as possible his process of creation and the characteristics of each element of his work in order to facilitate future performances of his work, especially if the accurate reproduction of his intentions is important to him.

1.6 Is the move to more dynamic and open-ended exchanges of information blurring the responsibilities and altering the legal liabilities of the participants in electronic transactions?

- This question is not really applicable, since the composer has no legal liabilities.

1.7 How do record creators traditionally determine the retention of their records and implement this determination in the context of each activity? How do record retention decisions and practices differ for individual and institutional creators? How has the use of digital technology affected their decisions and practices?

- The composer has not considered the issue of record retention as such, though he is concerned that the ability to perform his piece in the future be ensured.