# Synopsis for Software Studies

## Concept/idea for paper

The main concept for my paper is an exploration of the relation between a human musically performer/improviser and an A.I musically performer/improviser. There has been quite a lot of debate whether or not A.I’s can create art[[1]](#footnote-1), and thereby music[[2]](#footnote-2), and the debate has centred around questions such as “What is art”, “What is music” and “Can A.I’s create art” and if A.I’s can perform creative skills, that we often perceive as being entirely human. However, in my experience, this debate is quite single minded and neglects other more important questions: Not whether or not A.I can create art and perform creative skills perceived as human, but *how* A.I’s changes art – or as Walter Benjamin puts it:

*“Earlier much futile thought had been devoted to the question of whether photography is an art. The primary question – whether the very invention of photography had not transformed the entire nature of art – was not raised. Soon the film theoreticians asked the same ill-considered question with regard to the film. But the difficulties which photography caused traditional aesthetics were mere child’s play as compared to those raised by the film”* – Walter Benjamin[[3]](#footnote-3)

My paper will explore how a A.I performs with a human performer in music, what the introduction of A.I in music signals for relations between musicians and finally what the relation between a human musician and artificial one can tell us about future relations between humans in general and A.I. I believe that music can be a powerful tool to do this and as George E. Lewis, a scholar in the field om computer music and musician himself, has claimed:

*“For me music is a powerful symbolic way of doing philosophy, of doing sociology, of manifesting resistance and presenting alternative models of thought in realms not directly related to music-technical concerns.”* – George E. Lewis, Interacting with Latter-Day Musical Automata

## Problem to address including questions

The main problem for my paper that will be recurrent, is how A.I changes music. This is the overarching focus/problem for my paper and will build upon George E. Lewis’ view on music as method and Walter Benjamins view on how we should focus more on how a new media changes art instead of focussing on whether it is art or not. This is important, since A.I will be, and already are in some parts, significant part of society in the future. A lot of thing will change but we need to start considering our relationship with A.I’s in the same way we have done about computers.

The following is a list of the questions I would like to address in my paper. This isn’t final, but suggestions that I’m still working on.

1. What does the introduction of A.I in music signals for relations between human musicians?
2. What does the relation between a human musician and artificial one can tell us about future relations between humans in general and A.I.?

## Sources

Listed below are the sources that I plan to use. Note that isn’t a full reference but only a title and an author. It also includes a short description on how they might help me answer the previous questions listed in “Problem to address including questions” or to reflect on the subject.

### The Uncanny Valley - Masahiro Mori[[4]](#footnote-4)

This paper introduces the concept of uncanny valley – a relationship between the degree of an objects resemblance to a human being and the emotional response to it. I will use it to provide a perspective on how we perceive A.I’s, that mimic human behaviour.

### Interacting with Latter-Day Musical Automata - George E. Lewis[[5]](#footnote-5)

In this paper, George E. Lewis analyses and reflects on his own experience using the Voyager 4 – an interactive system for improvising with computers. I will use this as background knowledge and will use the Voyager 4 as an artefact for analysing. This paper also provides reflections on historical and cultural knowledge when improvising.

### Why do we want our computers to improvise? Lecture by George E. Lewis

This lecture is very much the starting point for my paper – it was when first heard this lecture, that I got the idea for my paper. It has provided me with inspirations for sources and it provides a lot of reflections and points on interacting with A.I, the relationship between a musician and A.I and what this might tell us about a future relationship with A.I’s. Finally, if I don’t manage to obtain the article from George E. Lewis “Why do we want our computers to improvise? In “The Oxford Handbook of Algorithmic Music”, I will use this lecture when quoting Lewis instead.

### George E. Lewis – “Voyager Duo 4”[[6]](#footnote-6), 1978 & George Lewis "Interactive Trio" for Trombone, Two Pianos, and Interactive Music System”[[7]](#footnote-7), 2011

These two videos will some of the artefacts/examples, that I will include in my paper to reflect and analyse upon.

### Authorship and Improvisation: Musical Lost Property - Valerie Pearson

I will use this paper to provide a definition on improvisation and some reflections on the relationship between two improvisers.

### Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter – Karen Barad & Three Minute Theory: What is Intra-Action[[8]](#footnote-8)?

This paper and short Youtube video will provide a core concept for my paper: The notion of intra-action. This concept deals with agency and how individuals materialize through intra-actions and the ability to act emerges from within the relationship not outside of it. When reflecting on the relationship between A.I and humans, I will use the notion of intra-action.

## Next steps

I still need some sources on agency, that can provide a basic understanding of this concept. I will use the concept of agency a lot, so this will be quite important to me.

I also need to decide which examples on musicians and A.I’s performing together, that I would like to use in the paper. I feel that depending on which example I use, my paper will change character, so need to very clear about what and how my paper should answer the questions listed before.

After the tutorial session with Magda I will need to make a more finalized draft of my flowchart for the paper, so that I have a clear overview of my arguments, the overall structure of the paper (which parts it includes and how they tie together), which sources I will use in different parts of the paper and how I will reach my conclusion. With this, I also need to meet with my study group to give critique, discuss how to write and give each other advice for the paper.

Finally, I still need to do some more research on A.I’s, agency and computer music in general. Also, there are still some sources that I haven’t read (Pamela McCorduck), haven’t received yet from AU Library (George E. Lewis “Why do we want our computers to improvise? In “The Oxford Handbook of Algorithmic Music”.) or that I need to reread (Lucy Suchman).

## Specific questions for Magda

The following sections outlines a series of questions that I would like to have clarified in the tutorial session. Some of them deals with formalities and others deals with additional sources, structuring the paper and so on.

1. How do I quote videos in my paper? I have some videos taken from youtube.com and vimeo.com which I will be using in my paper.
2. Do I need to include examples of code? Or will a flowchart be sufficient?
3. Do I need to include text from the core curriculum? And if so, what text will you recommend, that I use?
4. Are there any sources on agency that you would recommend? Perhaps some in relation to computers? I have found some sources myself, but I would like some texts on this, that is considered as a part of the core theory in this realm.
5. Would it be a good idea to include a brief historical overview?

1. Artist Lawrence Lek has explored this in his 2017 movie “Geomancer” presented at Transmediale 2018. A short trailer for the movie can be seen at <https://vimeo.com/210494259> [↑](#footnote-ref-1)
2. One example of a music album composed and produced by an A.I can be seen at <https://futurism.com/the-worlds-first-album-composed-and-produced-by-an-ai-has-been-unveiled/> [↑](#footnote-ref-2)
3. https://www.marxists.org/reference/subject/philosophy/works/ge/benjamin.htm [↑](#footnote-ref-3)
4. <https://spectrum.ieee.org/automaton/robotics/humanoids/the-uncanny-valley> [↑](#footnote-ref-4)
5. <https://vimeo.com/78692461> [↑](#footnote-ref-5)
6. https://www.youtube.com/watch?v=hO47LiHsFtc [↑](#footnote-ref-6)
7. https://www.youtube.com/watch?v=ec88U5R7cJ0 [↑](#footnote-ref-7)
8. https://www.youtube.com/watch?v=v0SnstJoEec [↑](#footnote-ref-8)