

# NIME CritPersp AIML: Diversity & Ethics

Made with a wink and a smile

CHARLES MARTIN JUL 15, 2020 07:37AM

CHARLES MARTIN JUL 21, 2020 08:55PM

## Modelling a certain musicians style

What are the issues here?

*Are there issues of moral rights here?* – CHARLES MARTIN

<https://www.google.com/doodles/celebrating-johann-sebastian-bach> – CHARLES MARTIN

*Musicologists were outraged about the Bach google doodle!*  
– CHARLES MARTIN

CHARLES MARTIN JUL 21, 2020 08:54PM

## Mismatch in learning capacity between musicians and the ML components of work.

Speaks to "coadaptation" in musical AI, and interactive ML.

ANONYMOUS JUL 21, 2020 09:05PM

## latency can be an affordance - Chappes's telegraph 19th century?

overcome distancing by interacting with a model of the person you're wishing to interact with rather than the real person... the "worst version of ourselves" - is this the least computationally "aided" or "enhanced"

playing with the "worst version of yourself" - this might be therapeutic, good for the ego (this might have been me, ouch!!)

AI system as a "baseline" for artists seeking to interact with evolving "versions" of themselves, their techniques/compositions

but what is "better"? Is this "faster"? Is it something "measurable"? something "new" or "unpredictable"?

interesting to play with "yourself" from the past to generate new material

musicological information: recordings of past performances - could we have a trained model of e.g. Miles Davis today, to open up new performance possibilities

this is "dead capital" - cf. Stanyek and Piekut - necropolitics  
[http://www.posgrado.unam.mx/musica/div/pdf/SoundStudies/Stanyek\\_Piekut.pdf](http://www.posgrado.unam.mx/musica/div/pdf/SoundStudies/Stanyek_Piekut.pdf)

What do we owe Bach? (David Cope) - he's "free game"! we've got a great dog barking (baching) in the background but are wondering if it's just an ML app that's sneaked in

CHARLES MARTIN JUL 21, 2020 08:49PM

## Can AI ML overcome remoteness and distance?

HUGO SCURTO JUL 21, 2020 08:28PM

## How much bias in gesture recognition systems?

Would a model trained on motion data impose certain gestures among music performers?

gestural contagion is already happening everywhere via the internet etc - so can we get beyond gestural bias that reinforces existing gestural practices/habits?

ANONYMOUS JUL 21, 2020 08:29PM

## How much NIME work involves AI or ML? Not sure of statistics, good question!

There were early examples of machine learnings in NIMES but increased accessibility of deep learning where you don't need to code your neural net from scratch and can use more modular approaches - appropriation of "blackbox" type technology - Benedikte works with deep learning, as end user what you can control is what I've decided early on as developer

Machine learning's use for AI composers - AI as a tool

ERIKNYSTROM JUL 21, 2020 01:38PM

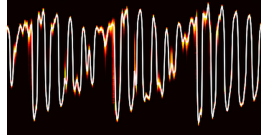
## Regarding data sets, Google WaveNet synthetic voices provides some food for thought.

E.g. what languages, accents, etc are represented? Which humans are the models for what a 'human' sounds/speaks like? One of the most interesting bits is if you scroll down to 'Knowing What to Say' where they have examples of babbling voices not trained with specific text. Is this an example of computational creativity, a 'non-cultural' language? The music examples also shows something that I think happens a lot in computer music(ological) research, which is that certain musics (e.g. western classical) are privileged over others - to what extent might the music influence the development of the technology?

### WaveNet: A Generative Model for Raw Audio

This post presents WaveNet, a deep generative model of raw audio waveforms. We show that WaveNets are able to generate speech which mimics any human voice and which sounds more natural than the best existing Text-to-Speech systems, reducing the gap with human performance by over 50%.

DEEPMIND



**BENEDIKTE WALLACE** JUL 21, 2020 01:12PM

## Diversity in data

Could we circumvent our own human biases using ML? Or are we simply teaching the models our own biases?

Hope: Democratization and diverse representation

Fear: Amplification of existing biases creating larger divides

*A problem is that the wealthy part of the world is in control of the algorithms. Seems that some voices and forces are inevitably going to be prioritised over others. – ERIKNYSTROM*

**ANONYMOUS** JUL 21, 2020 12:39PM

**interesting discussion of artists' rights when pre-existing music is used to train models re: OpenAI ::::**

**<https://twitter.com/hollyherndon/status/1257282045534965761>**

[https://soundcloud.com/openai\\_audio](https://soundcloud.com/openai_audio)

**HUGO SCURTO** JUL 21, 2020 12:37PM

**Could we use generative models to create more diverse datasets?**

**RICHARD SAVERY** JUL 21, 2020 12:39PM

## Existing datasets

Even though everyone does it, is it actually ok when we use datasets from performers of the past that have not given consent (and likely wouldn't)? Thinking specifically of very commonly used Jazz datasets, it's hard to imagine many artists

would actually give consent.

This ties into another problem where genres such as hip hop are very lacking in data, but is making a dataset good for diversity of data, or bad as it is then allowing for more use without consent?

**ANONYMOUS** JUL 21, 2020 12:30PM

**It seems that diversity is linked to accessibility..**

**HUGO SCURTO** JUL 21, 2020 12:34PM

**Giving the ability to people to build their own dataset...**

...so that datasets are more representative.

**BENEDIKTE WALLACE** JUL 21, 2020 04:52AM

## Algorithmic bias

What does this look like in NIMES? (Music suggestion algorithms, AI composers, instruments etc.)

Thanks to Lior Arbel for this suggestion!

*Specifically for instruments, a bias towards the western tuning system and western music structure, while neglecting non-western tuning systems and structures (Maqam, Gamelan etc).*

– LIOR ARBEL

**FABIO MORREALE** JUL 21, 2020 04:37AM

## "Black box"

New instruments employing some ML techniques (deep learning) often obscure their functionalities due to their implementations. This might be open up a number of issues

- can users understand / be aware of the mapping?
- is there space for appropriation?

*What processes are most transparent for the user? What approaches allow for intuitive exploration? – ANONYMOUS*

*can even developer who use a given library understand it? The agency of the black box, in my view might become scarily strong.*

– RAULMASU

**BENEDIKTE WALLACE** JUL 19, 2020 09:19PM

## A few questions to get you started...

How can and should we make sure that the artists behind the music used to train AI, are sufficiently reimbursed for the use of their material?

Can an AI generated work be eligible for copyright protection?  
Who should benefit from this protection?

musical interfaces?

As Google and other large companies have access to vast amounts of data and computational resources, they will likely have a leg up on others in developing AI-based music tools and AI composers. How will this play a role in the future of AI in

*Maybe Lanier's concept of "data dignity" is relevant to your first question: <https://youtu.be/Np5ri-KktNs> – ANONYMOUS*

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