techUK
FOR WHAT COMES NEXT

ARTS COUNCIL ENGLAND

Improvisation and future directions for AI and Music

Professor Matthew Yee-King

Goldsmiths

Goldsmiths
UNIVERSITY OF LONDON

Objectives

- To show examples of AI/ music work
- To discuss technical aspects of the work
- To discuss how that work supports human creativity

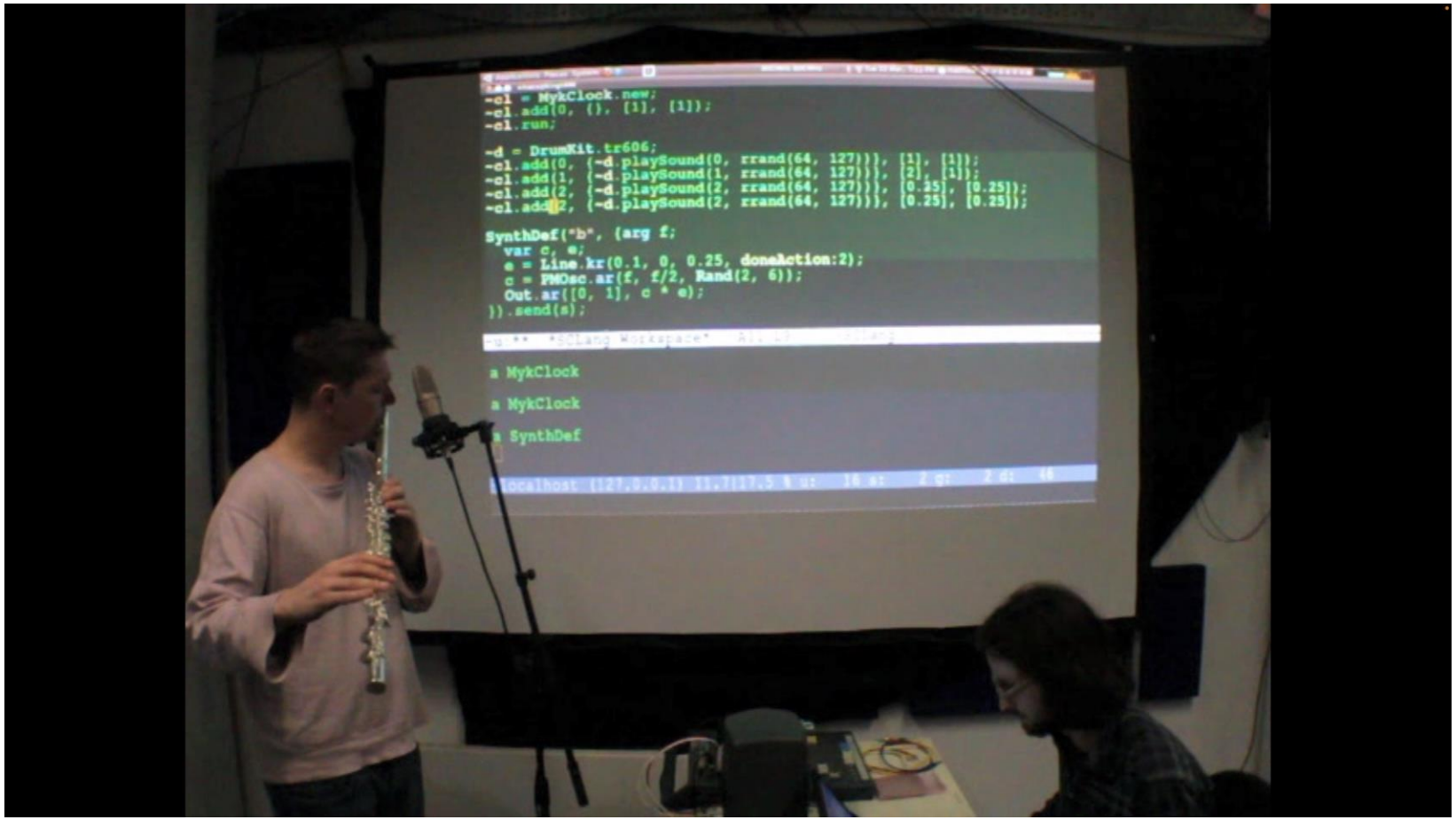
“The need to work as though decisions were scarce-as though you had to limit yourself to one idea-is no longer pressing. It’s a change from the influences of scarcity or economy to the influences of abundance and-I’d be willing to say-waste." - John Cage, 1968

“Future shock is the shattering stress and disorientation that we induce in individuals by subjecting them to too much change in too short a time.” – Alvin Toffler, 1970

“the trouble taken by the composer with series and their permutations has been in vain; in the end it is the statistical distribution that determines the composition" - Gottfried Michael Koenig, 1971

“You should never be comfortable, man. Being comfortable fouled up a lot of musicians” – Miles Davis

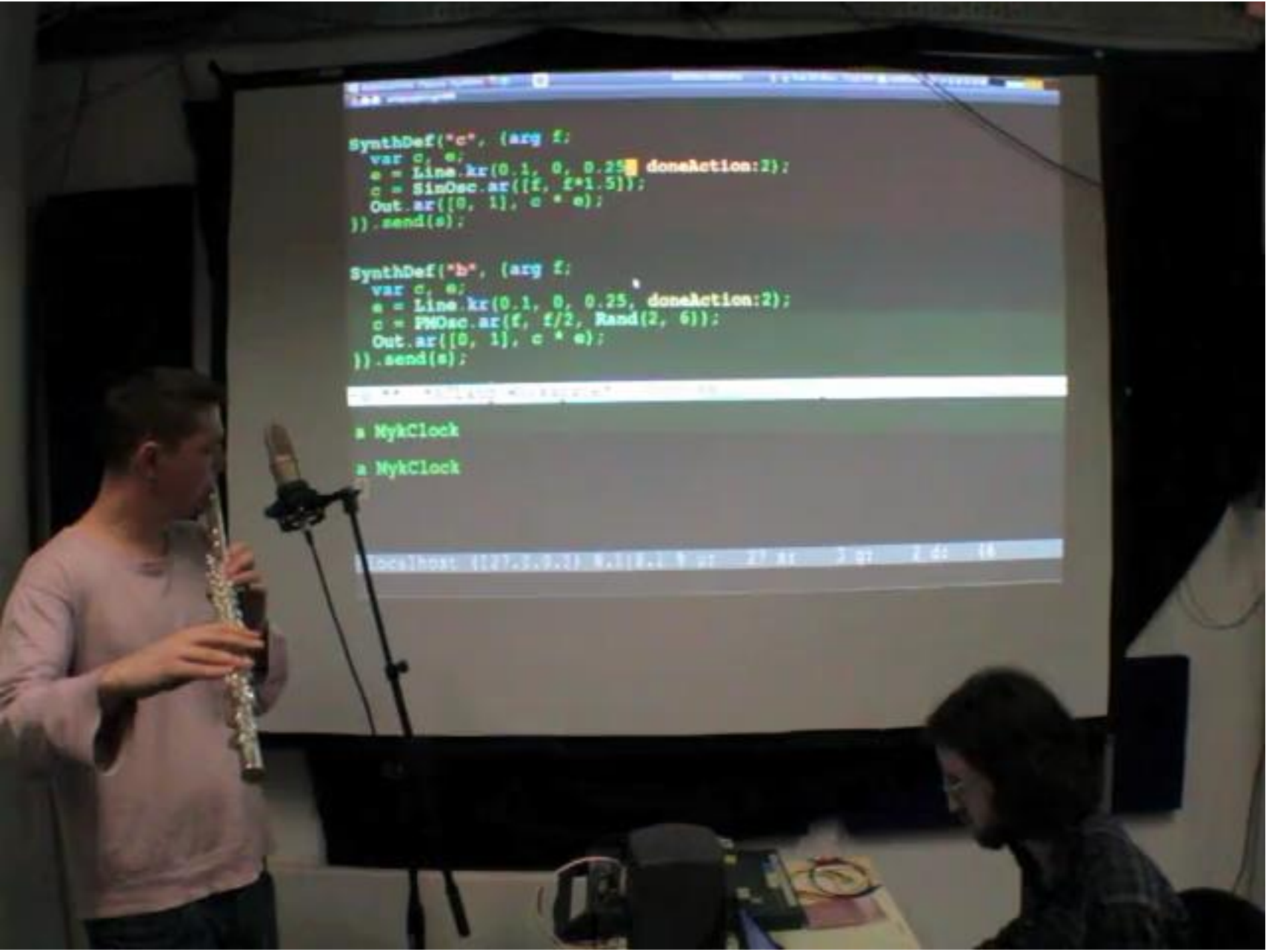
Improvisation with Ais: a relic



2011:
Finn Peters alto flute

Livecoding improviser software in SuperCollider

Filmed by Dom Mino

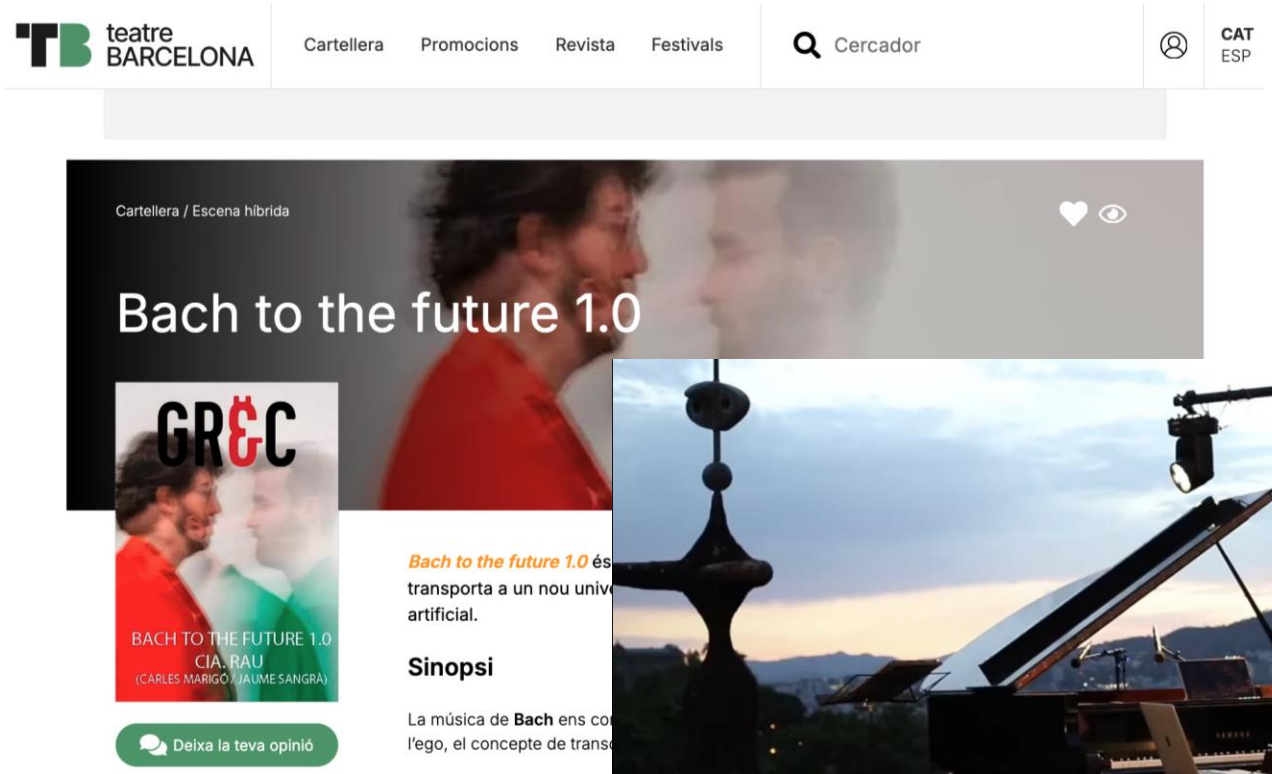

SynthDef("c", {arg f;
var c, e;
e = Line.kr(0.1, 0, 0.25, doneAction:2);
c = SinOsc.ar([f, f*1.5]);
Out.ar([0, 1], c * e);
}).send(s);
SynthDef("b", {arg f;
var c, e;
e = Line.kr(0.1, 0, 0.25, doneAction:2);
c = FMOsc.ar(f, f/2, Rand(2, 6));
Out.ar([0, 1], c * e);
}).send(s);
a NykClock
a NykClock

What was going on there?

Notable characteristics to look for:

- Technology:
- Artistic practice:

Make it open and accessible
Carles Marigo



2022: Bach to the Future 1.0

Teaser · Bach to the future 1.0 (Carles Marigó, Jaume Sangrà, Barcelona Grec i Bachcelona, 2022)
BACH TO THE FUTURE 1.0
CIA. RAU (CARLES MARIGÓ / JAUME SANGRÀ)
0:02 / 1:59

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2021-present
Series of
workshops
for musicians in
collaboration with
Artificia

Generalitat de Catalunya
Departament de Cultura

Institut Català de les
Empreses Culturals

BCN music LAB

www.artificia.pro

Experiment 1 with deep network improviser

2024: Mark d’Inverno’s first session with the system

nord
piano monitor

What was going on there?

2025: Added audio-MIDI plugin

Next: ethical datasets, LLM in plugin

https://github.com/yeeking

Three AI systems and three musicians

2024: Barcelona Music Lab / Artificia Event

Núria Andorrà: percussion and RAVE models

Carles Marigó: Piano augmented with robots

Finn Peters: sax, flute and AI models

GRAND PIANO

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Conclusion

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- I am an optimist!
- Technically challenging work == good!
- But: based around extending and transforming the practice of professional players

Thanks for listening

Code: https://github.com/yeeking

Goldsmiths page: https://www.gold.ac.uk/computing/people/m-yee-king/