

AI, MUSIC EDUCATION AND INNOVATIVE PRACTICES

Alexander Refsum Jensenius, UiO

Reagerer på bruk av KI-låter i bryllup og begravelser

KUNSTIG INTELLIGENS: Kirkemusikere opplever at pårørende ber om å få spille av KI-genererte sanger i kirkelige seremonier. Fagforbund ber Kirkerådet ta grep.



KI-MUSIKK: Hvis vi automatiserer våre dypeste uttrykk til algoritmene, hvor blir det da av mennesker, spør tidligere organist Hanne-Sofie Akselsen Frantzen. Foto: Lars Espen Langhaug

«KI-band» booket til flere festivaler: – Stjeler plassen til de som lager musikk selv

Bandet Vestavind, som har laget sine største hits ved hjelp av kunstig intelligens, spiller på norske festivaler i sommer. – Publikum vil ha det, sier Byfjordfestivalen.



Ole Morten Simonsen, som lagde sangene ved hjelp av KI, lengst til høyre. Resten er det ekte bandet han har samlet for å spille KI-hitene på festivaler i sommer: Frode Hammersland (bass), Bjørnar Hovland Johannessen (elgitar), Martin Hystad (trommer), Åge Bøe (vokal) og Vidar Vikse (gitar og koring).



Christian Ingebrethsen
Journalist

Publisert 5. jan. kl. 06:06
Oppdatert 5. jan. kl. 17:00

SUNO



joyousminimalwa
40 credits

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40

Simple Advanced

v4.5-all

Song Description



Can you make a song for this conference: ANMA & NORDPLUSMUSIC FORUM 2026



7-8 May 2026, Faculty of Performing Arts, University of Stavanger (Campus Bjergsted)

+ Audio

+ Lyrics

Instrumental

Inspiration

Workspaces > My Workspace



Search



Bjergsted Call v4.5-all

Upbeat pop-funk with a crisp four-on-the-floor pulse



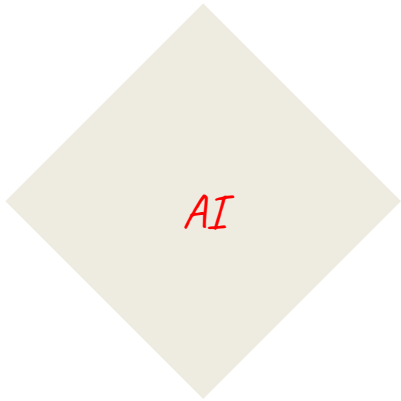
Bjergsted Call v4.5-all

Upbeat pop-funk with a crisp four-on-the-floor pulse





Do we need musicians in the future?





Technology



Music researcher



Centre & Lab
director

Research musician

Open Research
ambassador

Music researcher



Research musician







Pupil Capture

CPU 85.0

id0 conf: 0.92

id1 conf: 0.98

Pupil Capture - app 1

Needs:

- Data archive
- Media archive
- Ethical and legal frameworks (ethics + copyright)
- Culture of sharing



Open Research
ambassador



Centre & Lab
director



fourMs

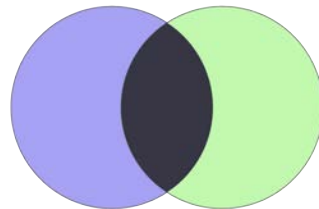
Music, Mind, Motion, Machines

Music Lab

Bodies in Concert



RITMO Centre for
Interdisciplinary Studies in
Rhythm, Time and Motion



MishMash
Centre for AI
and Creativity

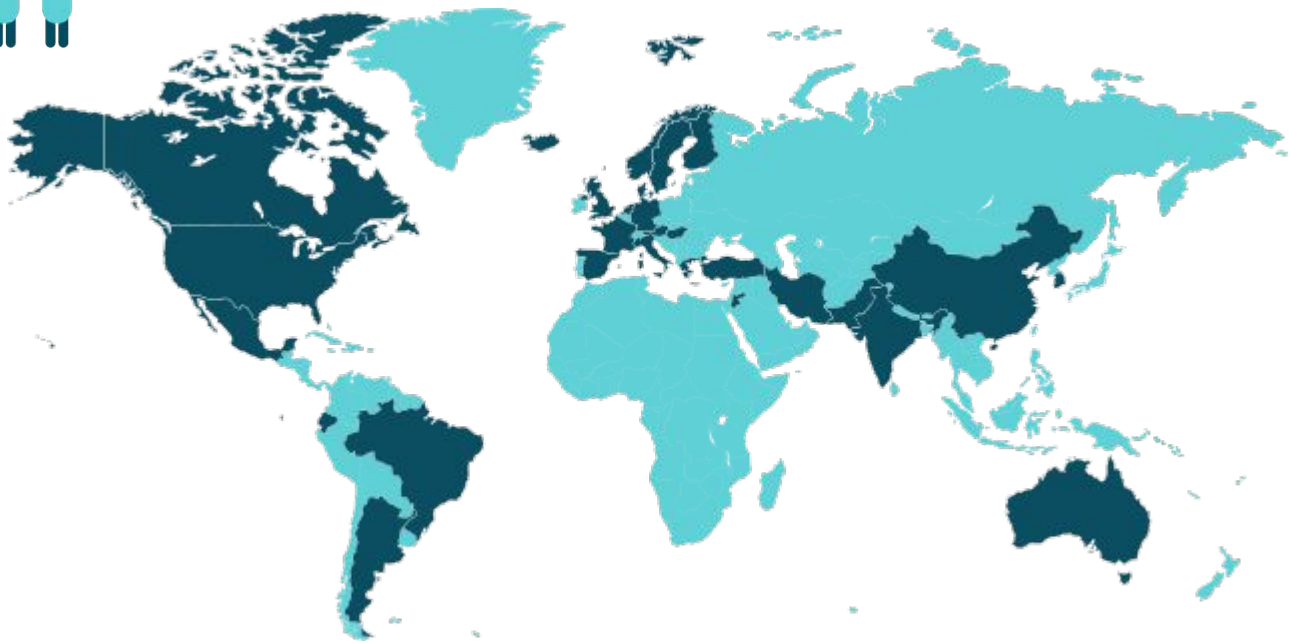
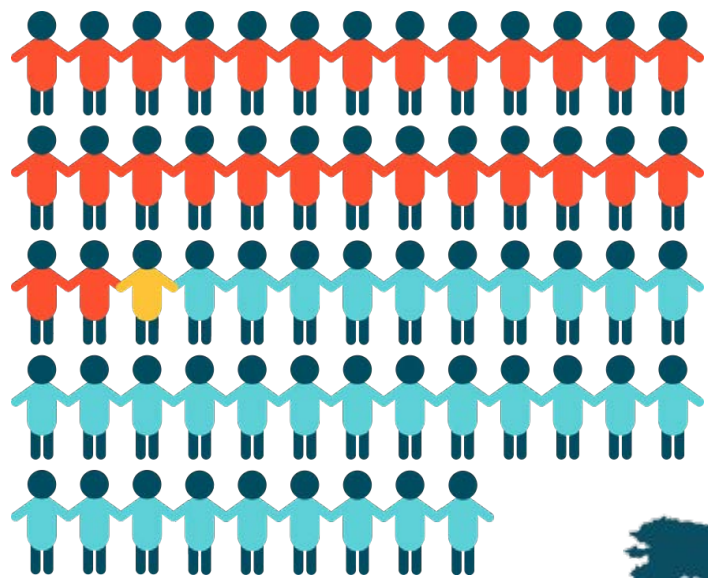
RITMO Centre for Interdisciplinary Studies in Rhythm, Time and Motion

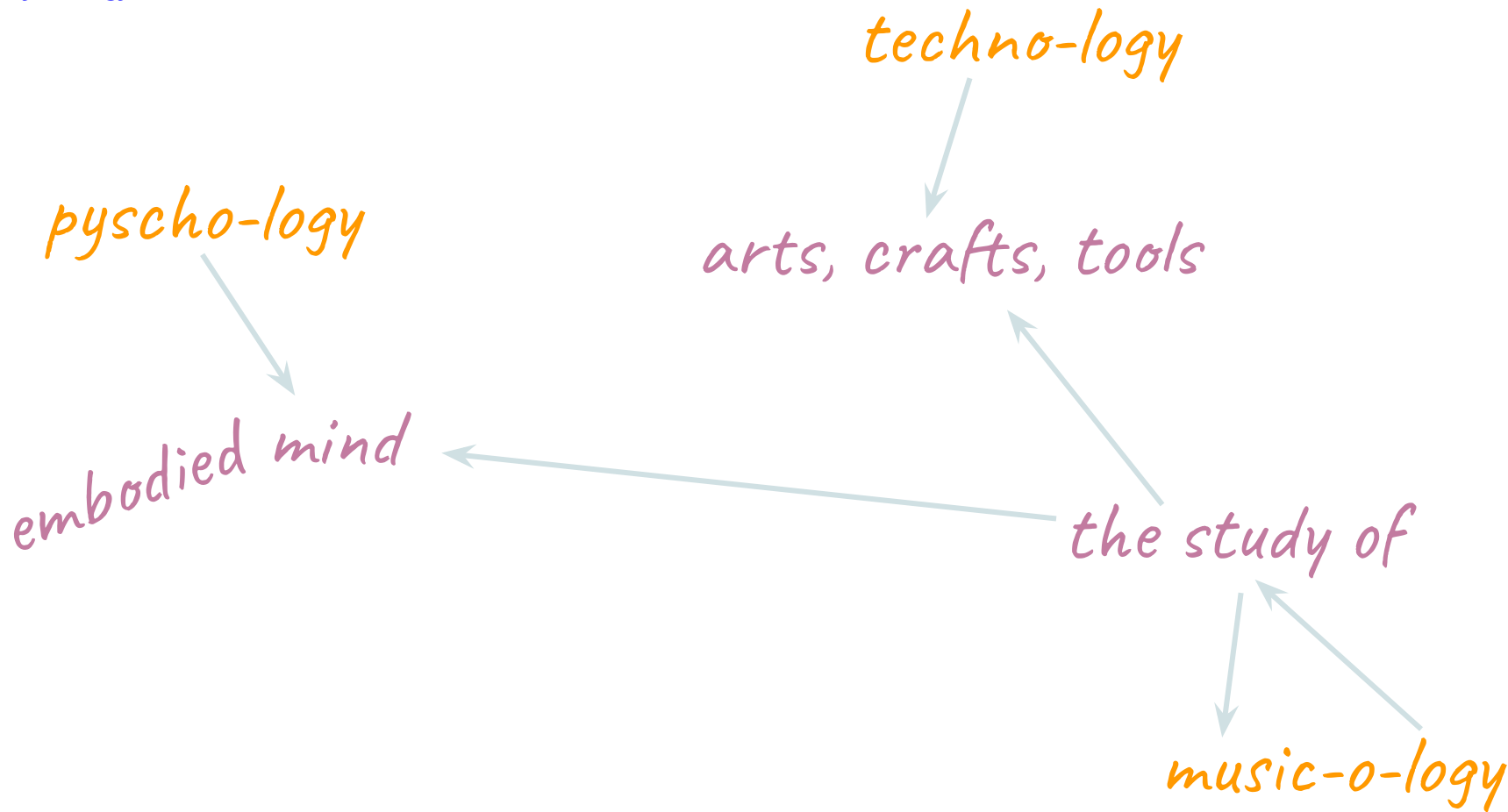


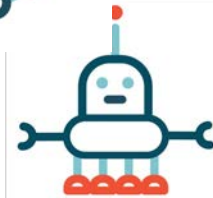
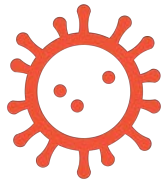
RITMO aims to expand our understanding of **rhythm** as a fundamental property of human life.



Norwegian
Centre of
Excellence



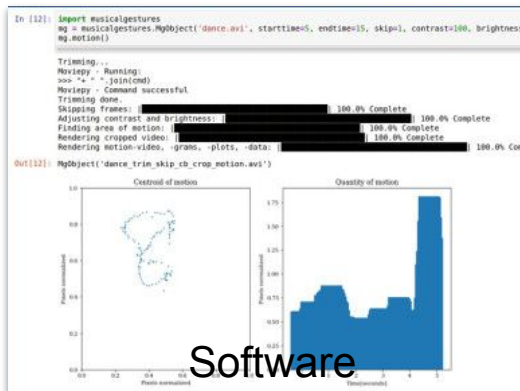
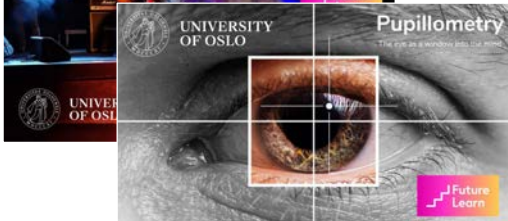






fourMs

Music, Mind, Motion, Machines









A group of approximately ten people are standing in a line on a stage, participating in a standstill competition. They are positioned on a black carpeted floor with white rectangular markers placed in front of them. The participants are dressed in casual attire, including jackets, sweaters, and jeans. The background is a dark stage with several large black speakers on stands. The lighting is focused on the participants, creating a professional atmosphere. The text "Norwegian Championship of Standstill" is overlaid at the bottom of the image in a white, sans-serif font.

Norwegian Championship of Standstill





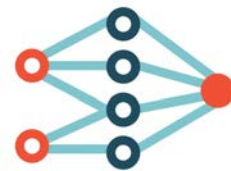
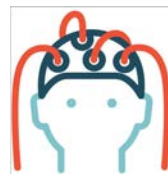


Myo armband on the forearm

Hemispherical speaker



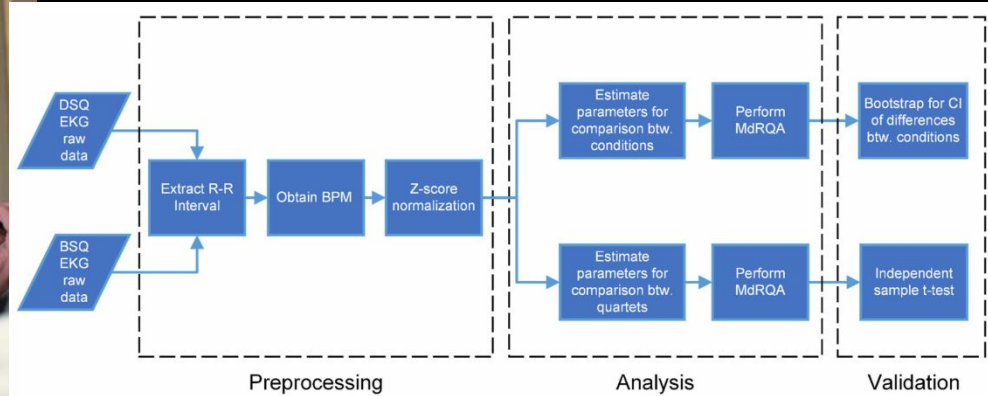
Music Lab



MusicLab Copenhagen



IR MoCap, eye-tracking & EMG





Measuring audiences in concert

Live + live-stream audiences

Questionnaires + body motion data collected via mobile phone app

Strategic concert structure kept first half of program naturalistic





MusicLab Copenhagen Data Management Plan

Project Information

Title

MusicLab Copenhagen

Lead PI

Simon Hoffding

Data-set citation

The data set is to be cited as follows:

- Hoffding, Simon; Bergstrøm, Rebecca Josefine Five; Bishop, Laura; Bravo, Pedro Lucas; Burnim, Kayla; Cancino-Chacón, Carlos; Clim, Alena; Good, Mathew; Hansen, Niels Chr.; Karlsen, Eirik Slinning; Laeng, Bruno; Lartillot, Olivier; Lippert, Elgij; Martin, Remy; Nielsen, Nannette; Nørgaard, Asbjørn; Omprakash, Rahul; Rosas, Fernando; Sjölin, Fredrik; Swarbrick, Dana; Sørbø, Solveig; Sørensen, Rune Tonsgaard; Upham, Finn; Vrasdonk, Attilia; Vuoskoski, Jonna; Yi, Wenbo; Øiland, Frederik; Jensenius, Alexander Refsum. *MusicLab Copenhagen Dataset*. Open Science Framework (2021).

Note on the order of names: Simon Hoffding goes first as project leader for MusicLab Copenhagen. Alexander Refsum Jensenius is last as project leader of the MusicLab event series. All the other names are in alphabetical order based on the last name. To assess the contribution of each, please refer to separate documents for each sub-dataset.

Data Timeline

All data collection took place in Musikhuset in Copenhagen, Denmark on 26 October 2021. There were two main data collection sessions:

- Controlled experiment with DSQ from 10:30-12:00. This experiment was led by Laura Bishop and was a replication study of an experiment with The Borealis String Quartet run in the fourMs Lab at RTMO in December 2019. A publication describing the Borealis experiment can be found here: <https://www.tandfonline.com/doi/full/10.1080/09298215.2021.1977338>. Data sources were Video, MoCap, Delsys EKG, PupilLabs.
- Public concert with the DSQ from 19:30-22:00. The DSQ performed a 2-part concert with one intermission. For the first half data sources were video and EKG sensors. For the second half Optitrack motion capture and Pupil Labs eye trackers were added. For the

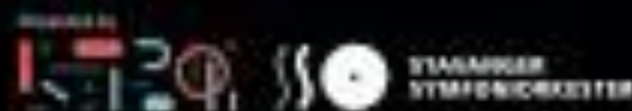






BODIES **IN** CONCERT


16 - 18 FEBRUARY 2023
STAVANGER KONSERTHUS




Live Concert Research

Concepts, Methods and Perspectives

Edited by

Sara D'Amario 

Laura Bishop 

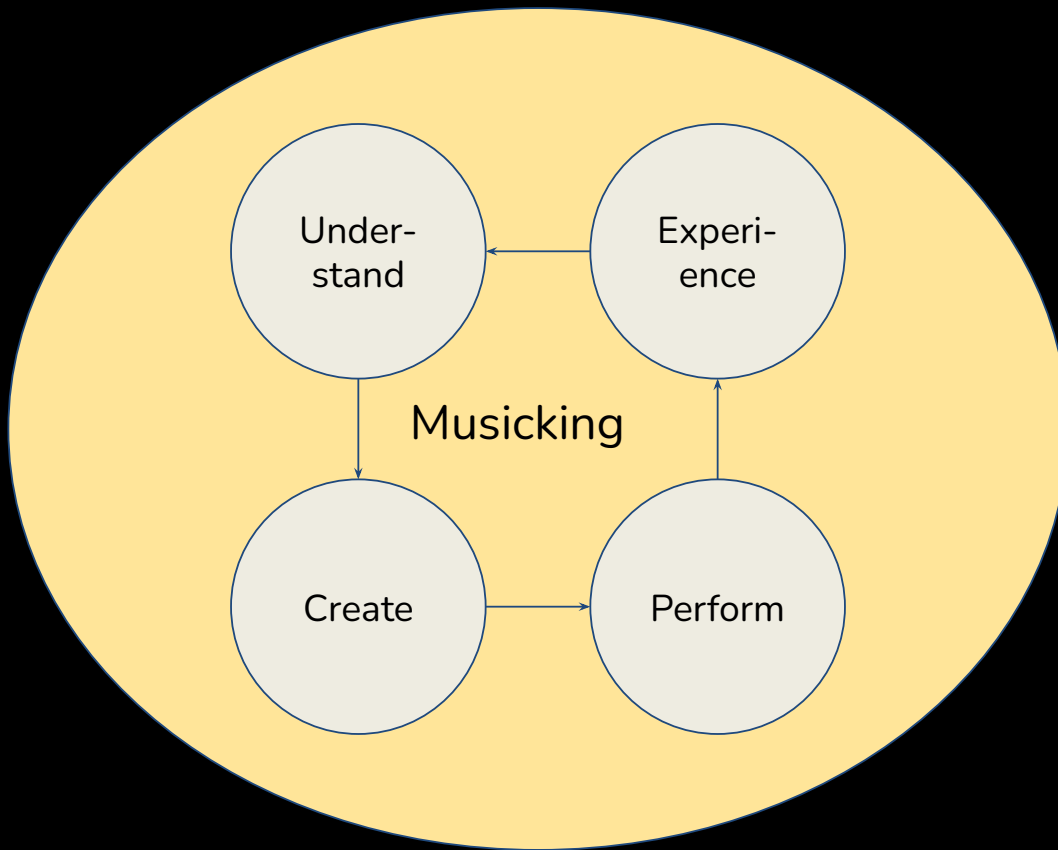
Alexander Refsum Jensenius 

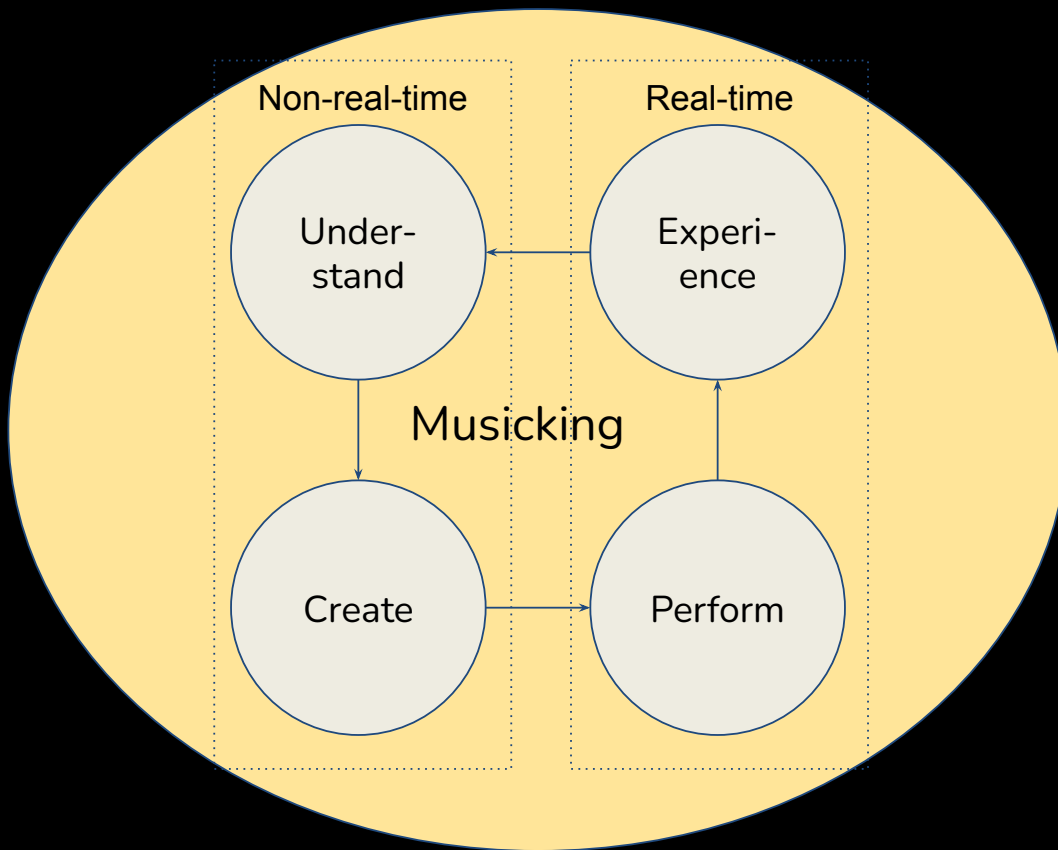
Routledge
Taylor & Francis Group

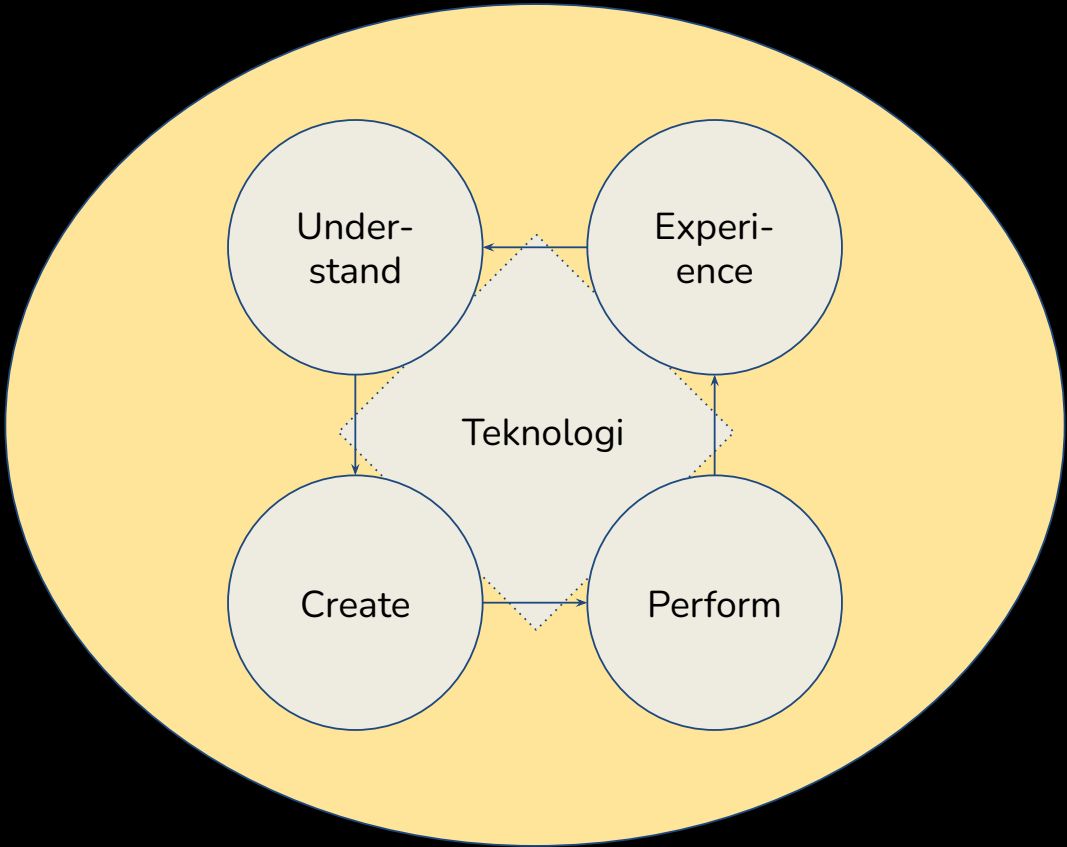
Music & AI

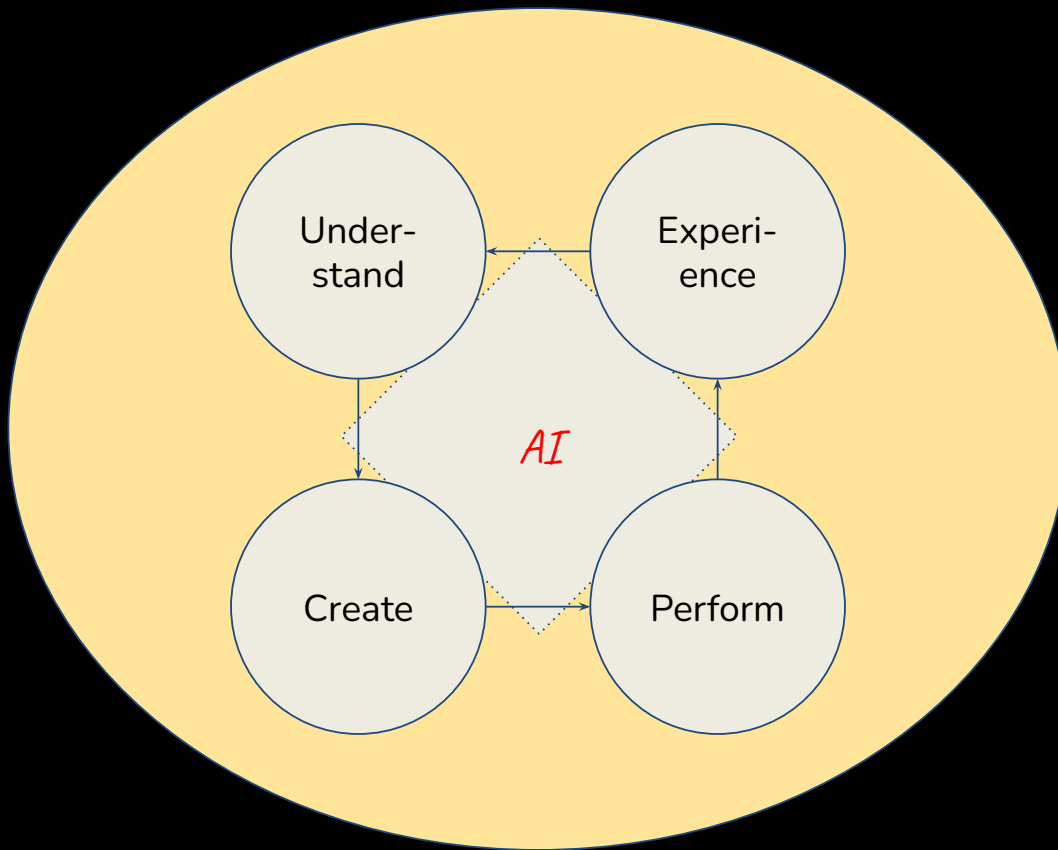


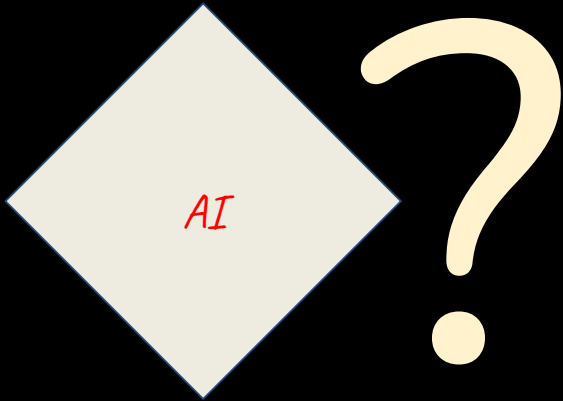
Musicking

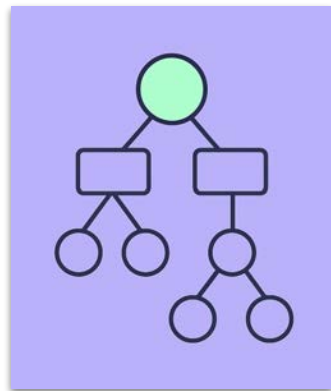
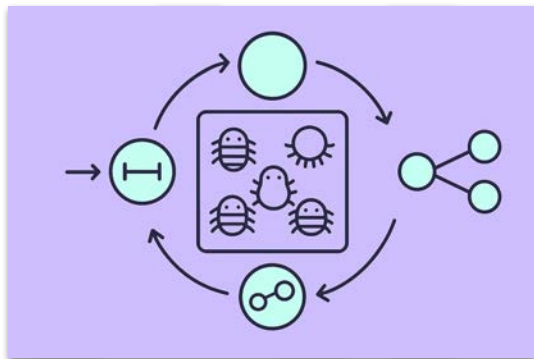
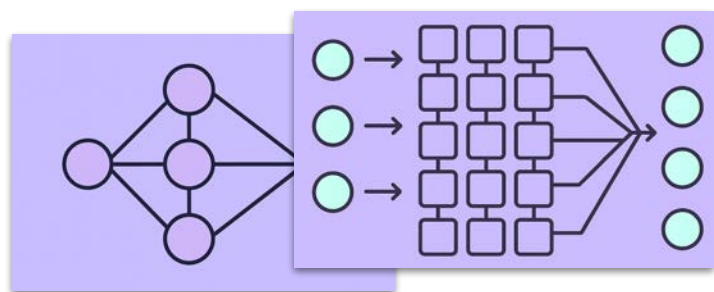
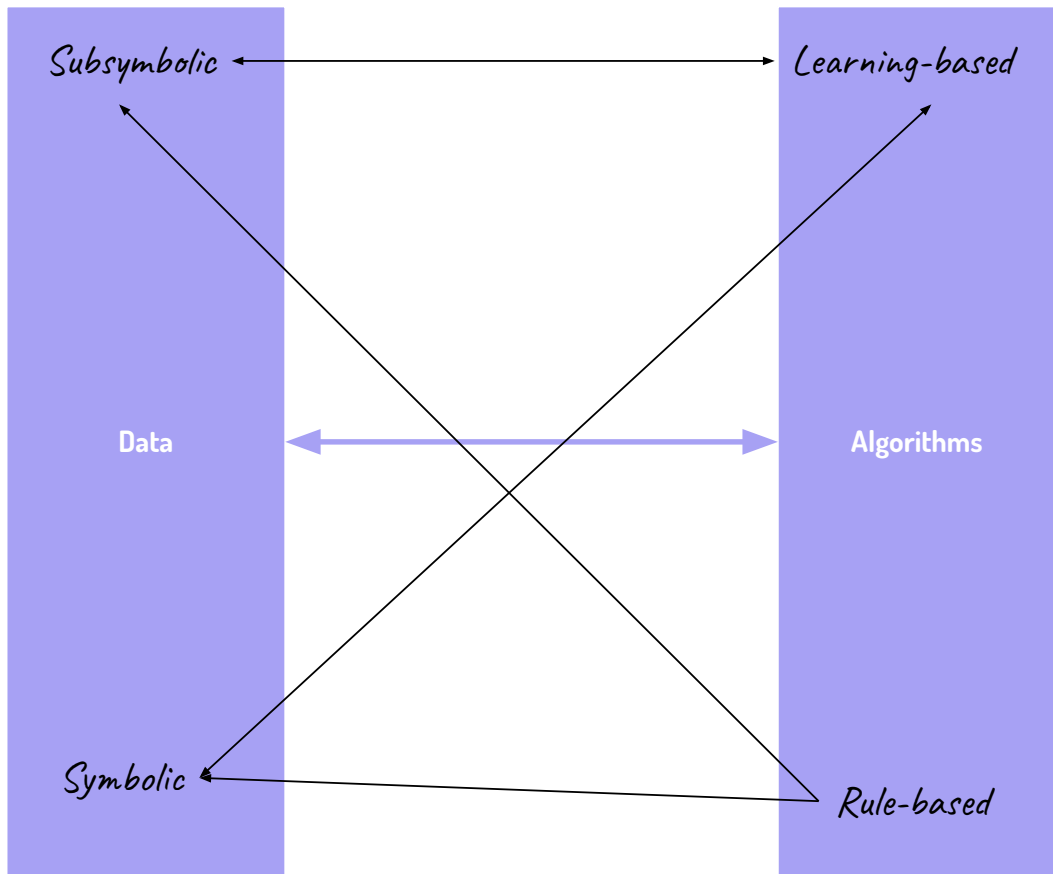


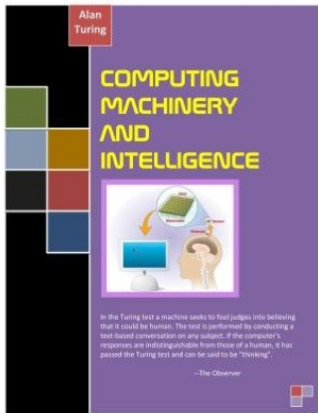












Alan Turing

1950



“Artificial intelligence”
coined by John McCarthy

1956



Deep Blue vs Kasparov

1997



ChatGPT

2022



Lejaren Hiller & Leonard
Isaacson: *The Illiac Suite*



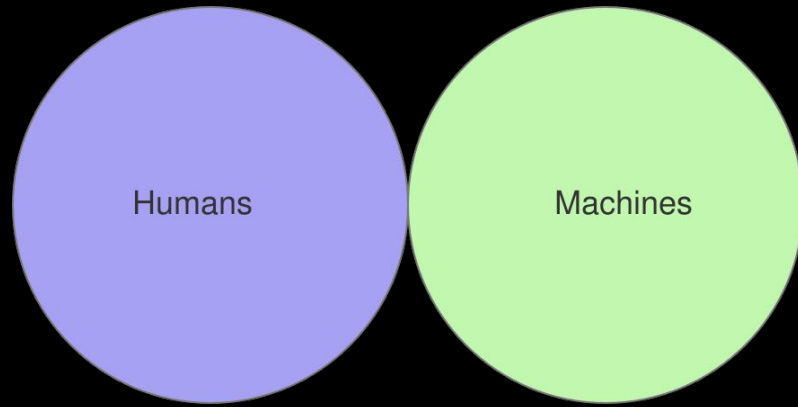
Harold Cohen:
AARON



David Cope:
*Experiments in Musical
Intelligence (EMI)*

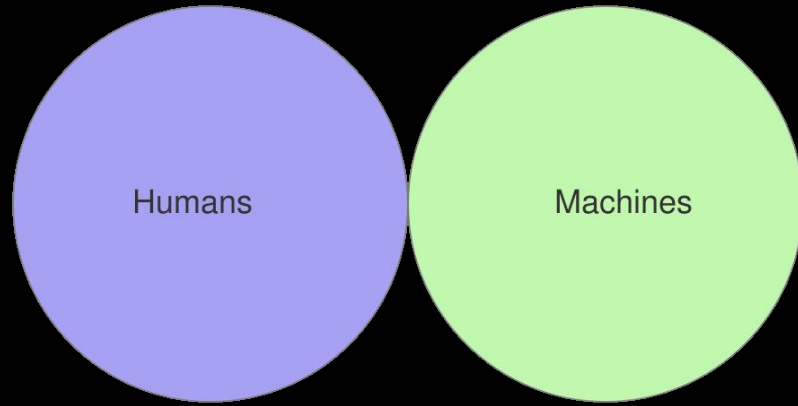


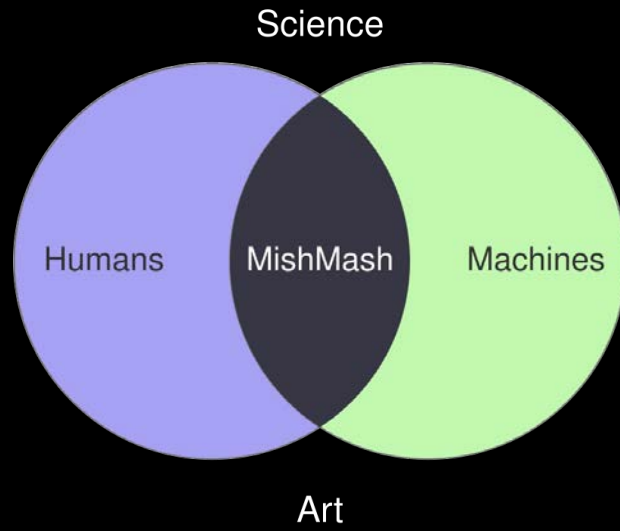
Karl Sim:
Evolutionary art

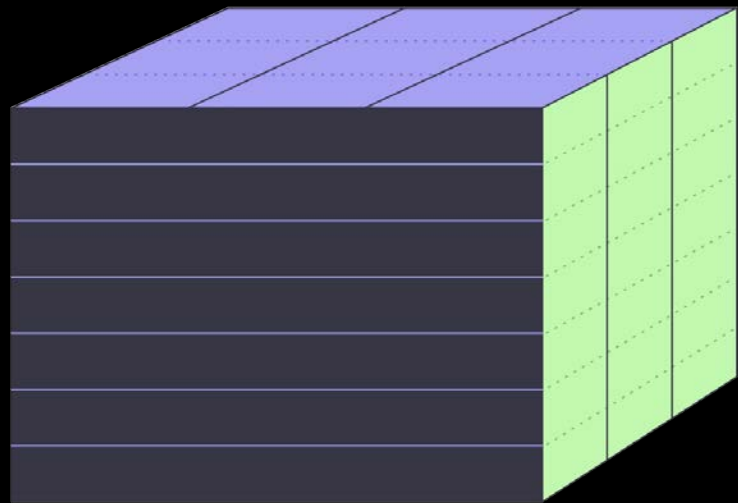


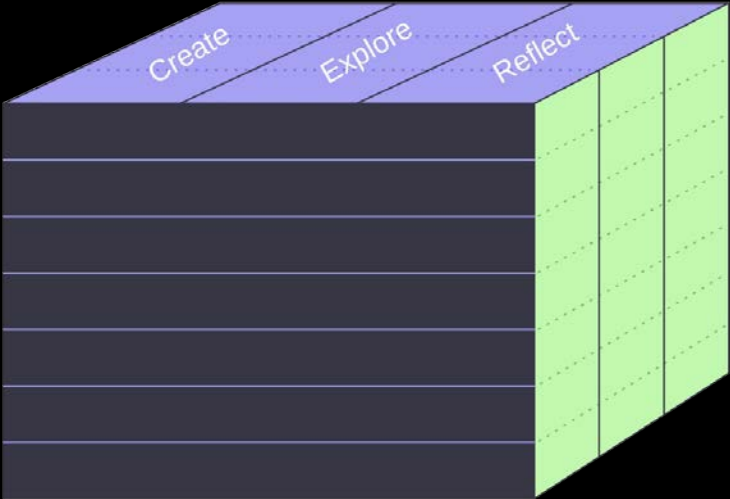
Humans

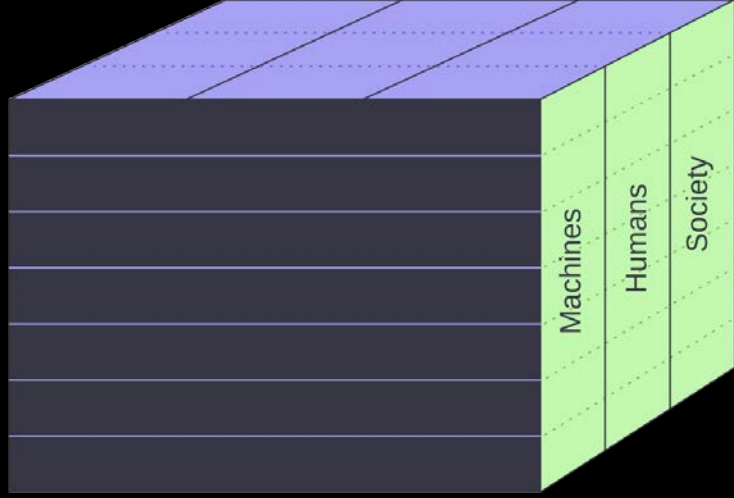
Machines

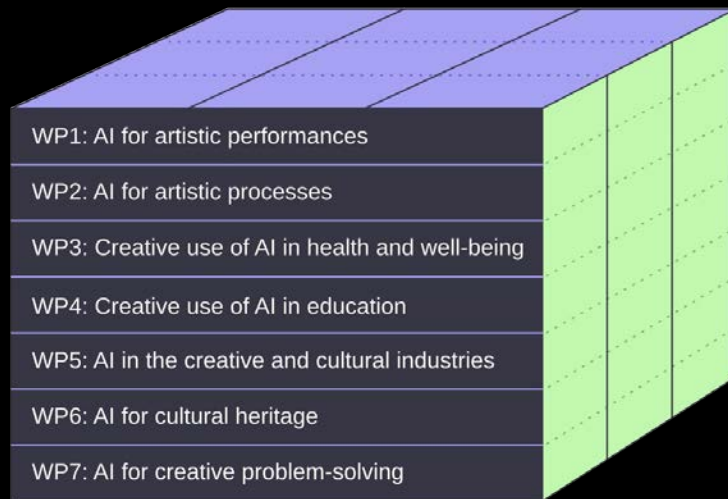












WP1: AI for artistic performances

WP2: AI for artistic processes

WP3: Creative use of AI in health and well-being

WP4: Creative use of AI in education

WP5: AI in the creative and cultural industries

WP6: AI for cultural heritage

WP7: AI for creative problem-solving

WP1: AI for artistic performances

WP2: AI for artistic processes

WP3: Creative use of AI in health and well-being

WP4: Creative use of AI in education

WP5: AI in the creative and cultural industries

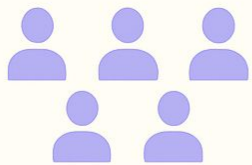
WP6: AI for cultural heritage

WP7: AI for creative problem-solving

*Fundamental artistic and
technological research*

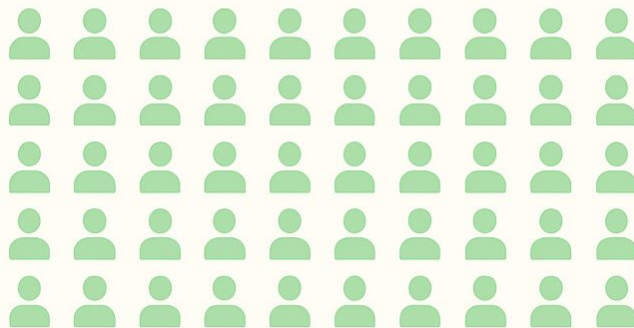
Task-oriented research and development

Domain transfer



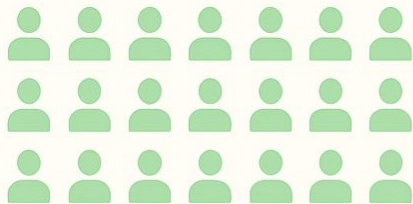
5

Management
members



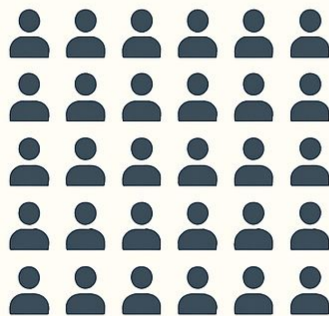
120

Associate members



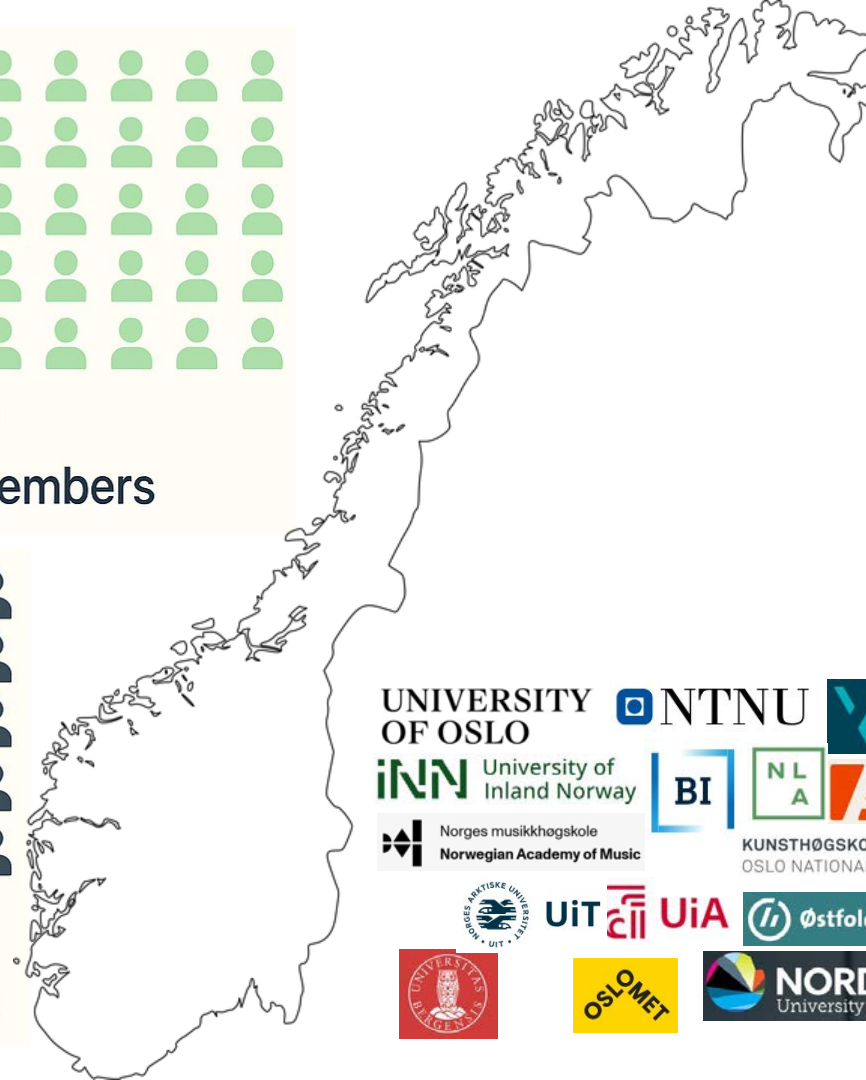
21

Work Package
leaders



80

Full members



UNIVERSITY
OF OSLO

NTNU

Western Norway
University of
Applied Sciences

iNN University of
Inland Norway

BI

NLA

AHO

Norges musikkhøgskole
Norwegian Academy of Music

KUNSTHØGSKOLEN I OSLO
OSLO NATIONAL ACADEMY OF THE ARTS



UiT Uia

Østfold University College



OSLOMET

NORD
University

Kristiania

AKKS VRINN GramArt. GRAMO KULTURSKOLERÅDET OKAI JM Norway TONO

Organisations & NGOs

nilu NOR SUS Norsk institutt for bærekraftsforskning simula SINTEF

Research Institutes

Notam. BERGEN CENTRE FOR ELECTRONIC ARTS SKAPIA TEKS

Medieklyngen Media Cluster Norway EXP FYND REALITY StoryPhone COMPOSER Halogen MK

FORZASYS RE SiFi Labs SAREPTA STUDIO

Foundations

Business & media sector
International HEIs

Hamar regionen Kulturtanken cultiva KILDEN NASJONALT SENTER FOR KUNST OG KULTUR I OPPLÆRINGEN HelseINN Innlandet fylkeskommune polyfon

Public sector

Australian National University UC Berkeley UNB SORBONNE UNIVERSITÉ ircam A! Kingston University London UNIVERSITY OF PLYMOUTH UNIVERSITY OF ICELAND UNIVERSITY OF JYVÄSKYLÄ AALBORG UNIVERSITY UNIVERSITY OF GOTHENBURG SFU IMF MONASH University Utrecht University OntarioTech UNIVERSITY MAX PLANCK INSTITUTE FOR EMPIRICAL AESTHETICS IT UNIVERSITY OF COPENHAGEN

Nasjonalbiblioteket ANNO Museene i Hedmark kode TEK NISK MUSEUM KUNSTSILO ultima ATELIER NORD Territorium KV BOREALIS BERGEN INTERNATIONAL FESTIVAL PUNKT Na

Library, museums, festivals & galleries

UNIVERSITY OF OSLO NTNU Western Norway University of Applied Sciences inn University of Inland Norway BI NLA AHO Norges musikkhøgskole Norwegian Academy of Music KUNSTHØGSKOLEN I OSLO OSLO NATIONAL ACADEMY OF THE ARTS UiT UiA Østfold University College OSLOMET NORD University Kristiania

2025

2026

2027

2028

2029

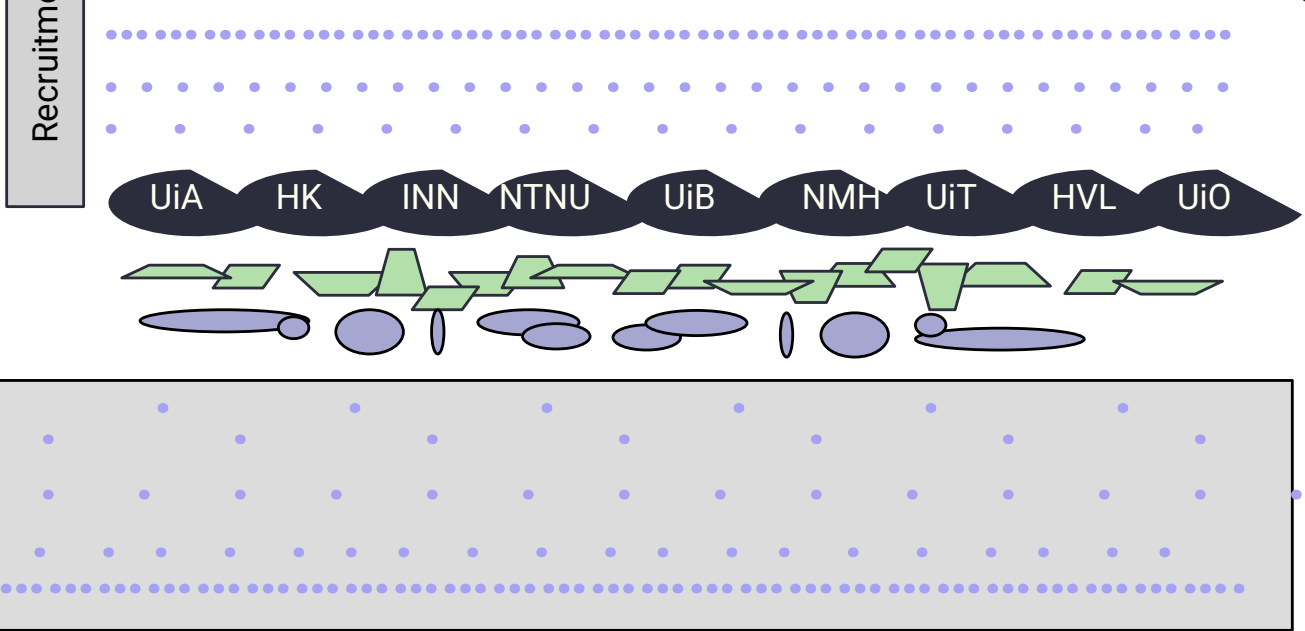
2030

Communication

Recruitments

Contracts and agreements

Reporting



WP project activities

Educational activities

PhD Defenses

UiA

HK

INN

NTNU

UiB

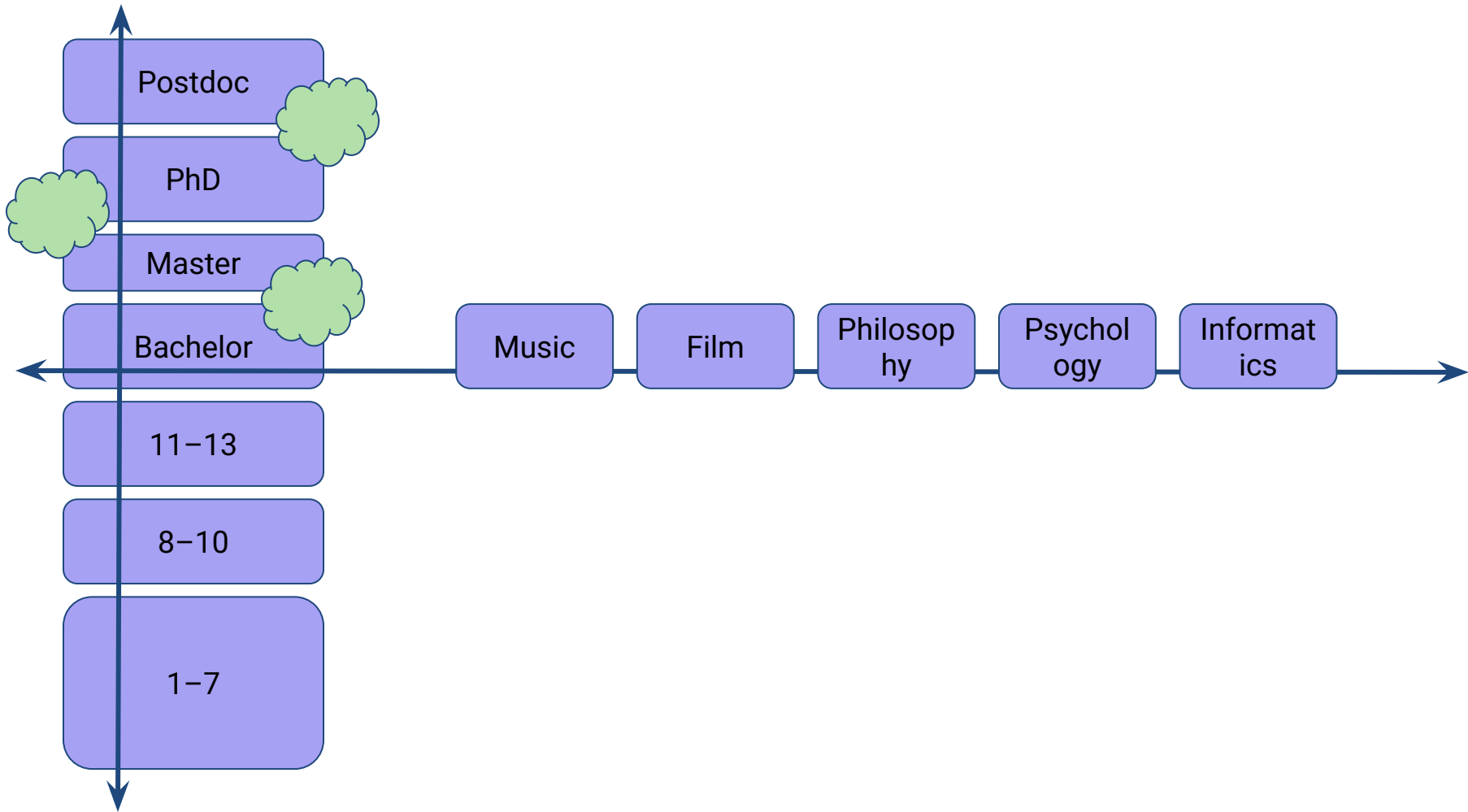
NMH

UiT

HVL

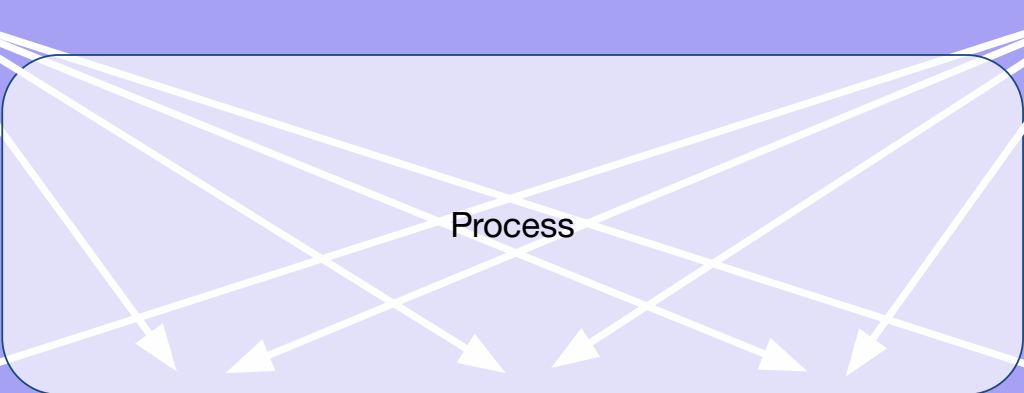
UiO

- Lunch seminars
- WP meetings
- Perspectives meetings
- Symposia
- Residencies
- Stakeholder activities
- Advisory Board
- Stakeholder Board
- Council
- Board
- Management team



Artistic research

Scientific research



Artwork

Reflection

Code

Data

Publications

Technology Readiness Level

Artistic Readiness Level

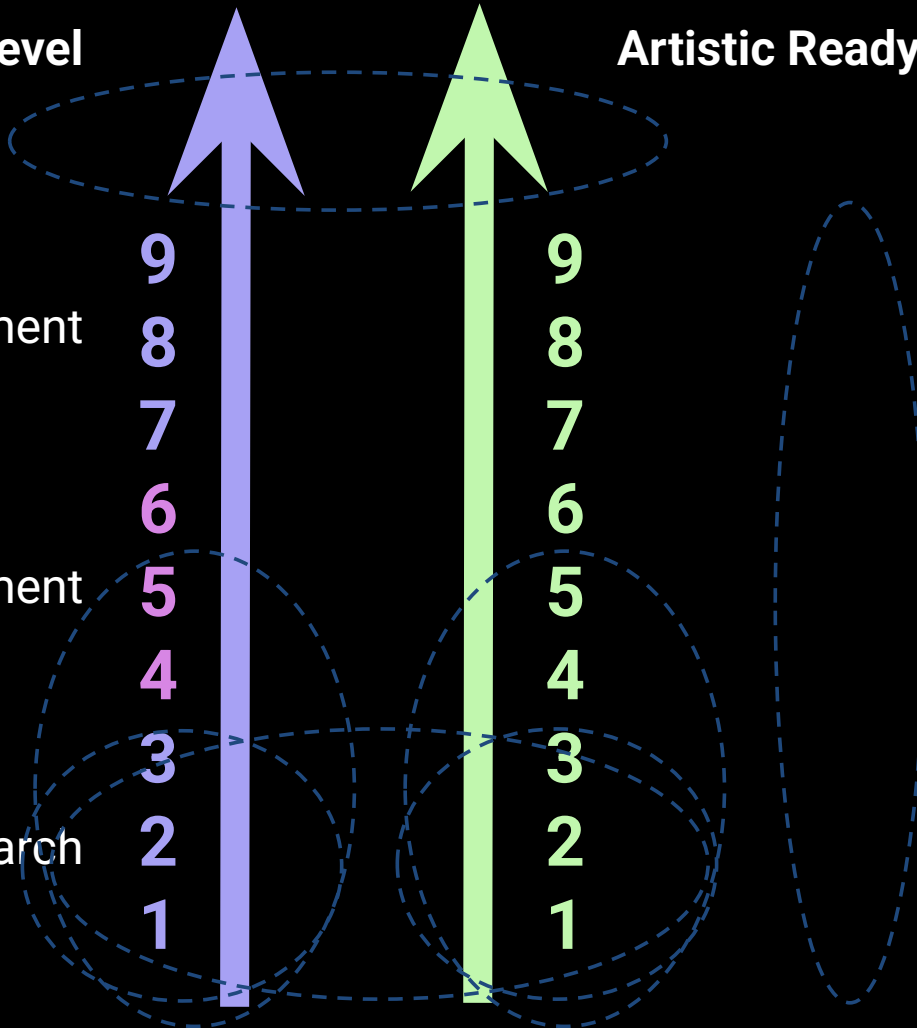
TRL 7-9: System Development

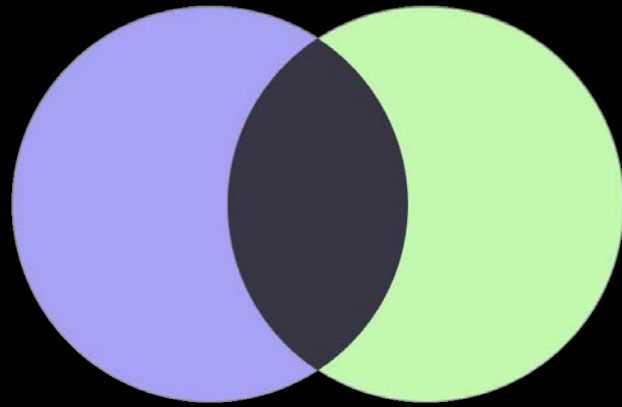
TRL 4-6: Technology Development

TRL 1-3: Basic Research

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mishmash.no