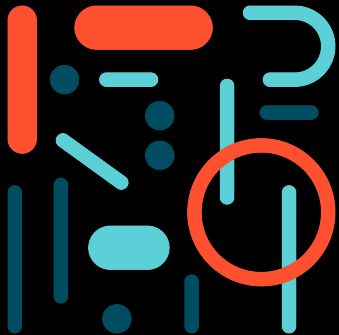




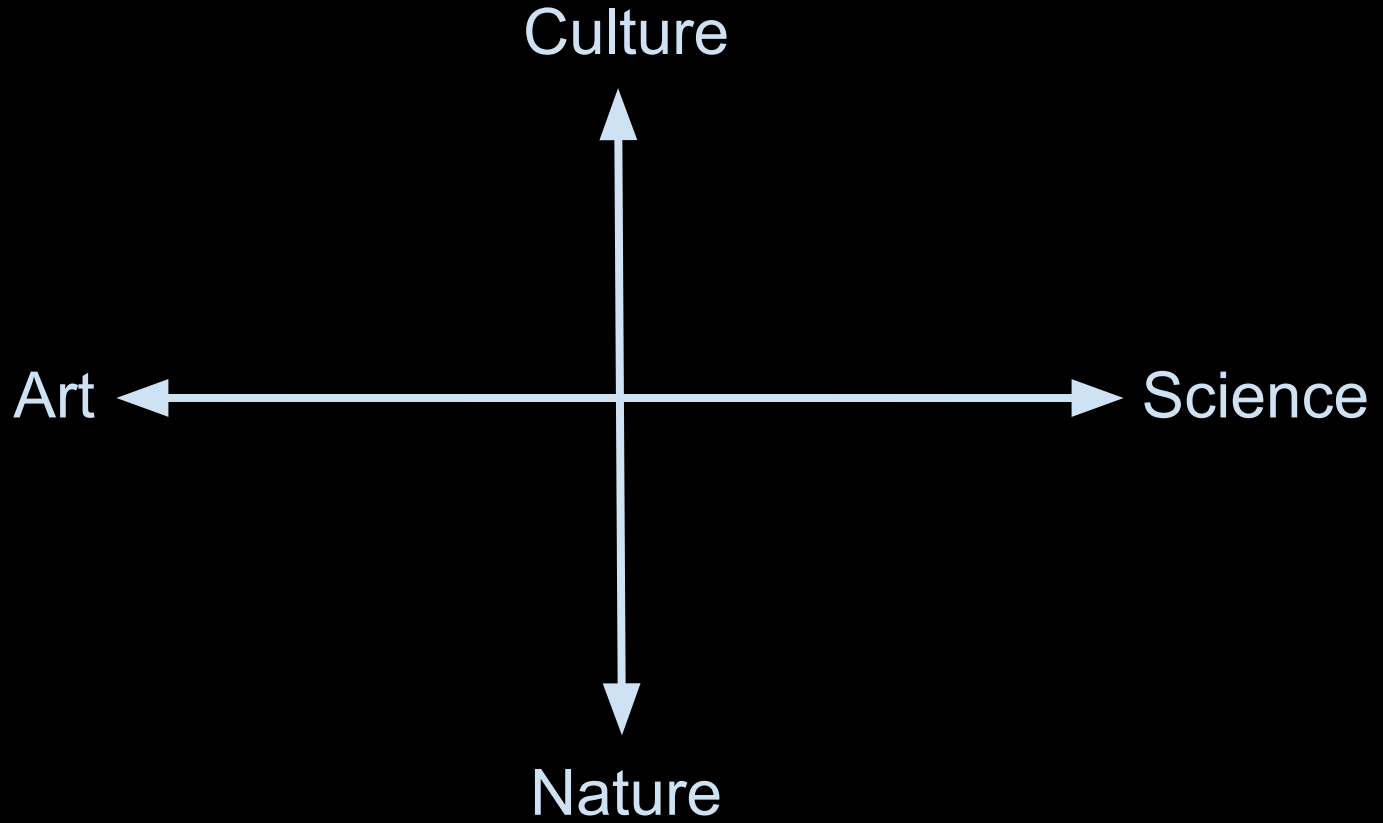
Experimenting with Open Research Experiments

Alexander Refsum Jensenius
Munin Conference, 27 November 2019



Experimenting with Open **Research** Experiments

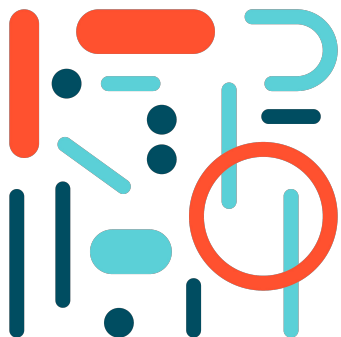
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Music
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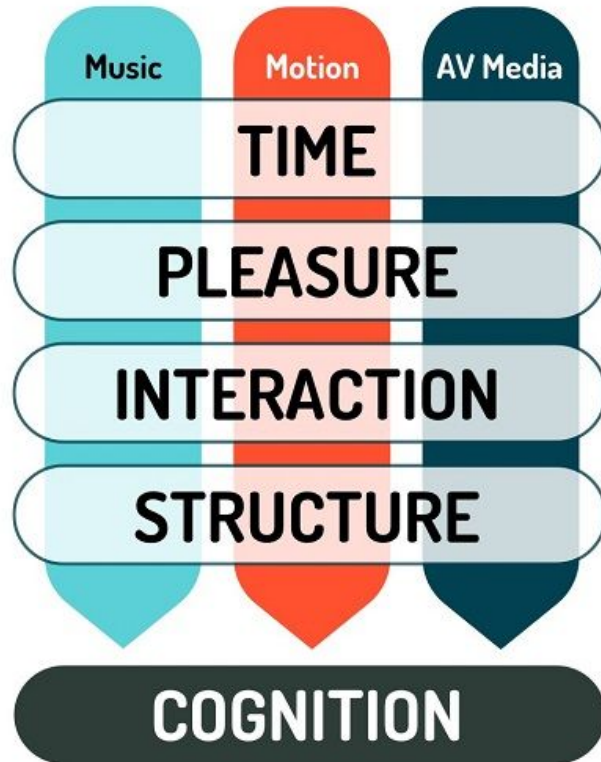


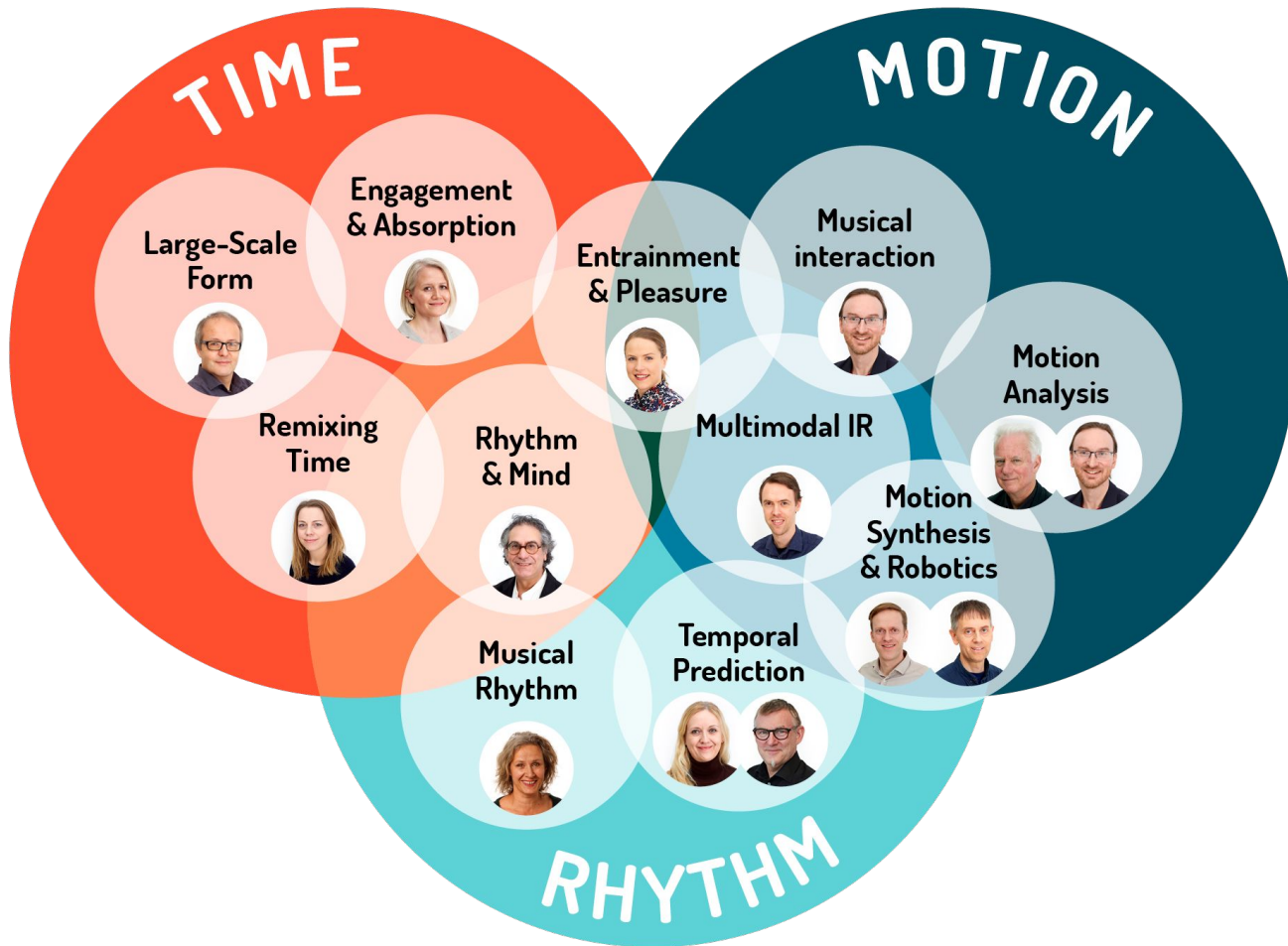
UiO : **RITMO Centre for Interdisciplinary Studies in Rhythm, Time and Motion**
University of Oslo



The Research Council of Norway

HUMAN RHYTHM



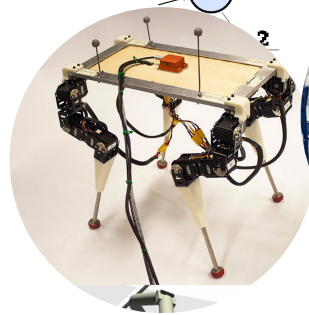
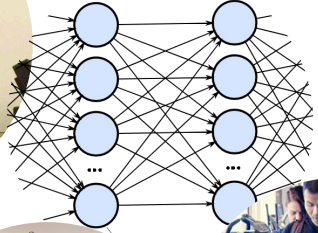
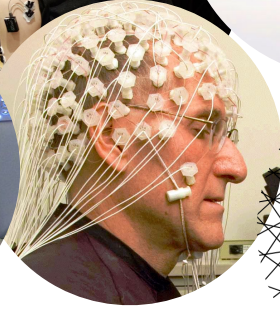
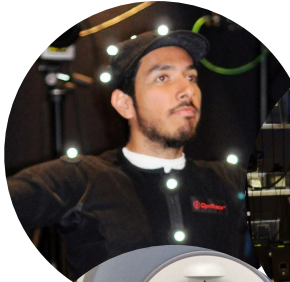
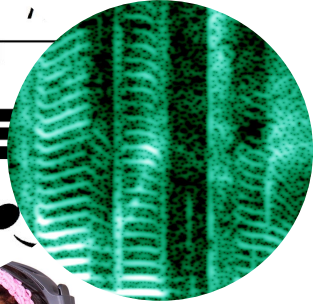
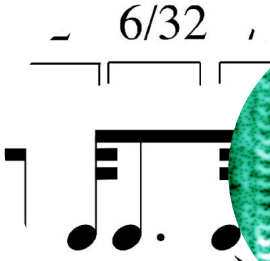


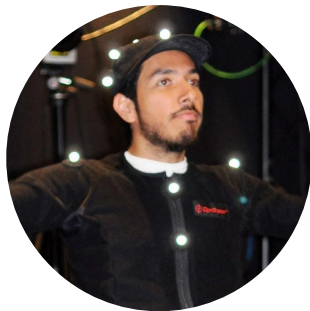
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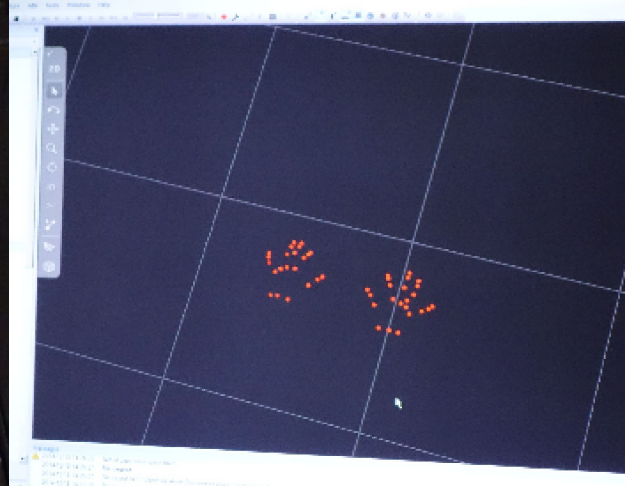
The PEOPLE



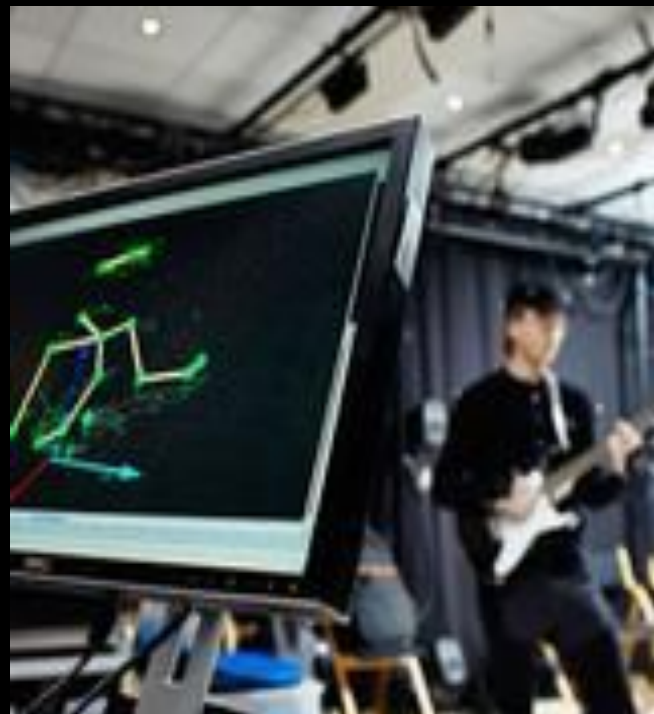


















NM i Stillstand

Next: March 2020

~~What?~~

How?

```
graph LR; Application --> Research; Research --> Output;
```

Application

Research

Output


```
graph LR; Application[Application] --> Research[Research]; Research --> Output[Output];
```

Application

Research

Output

```
graph LR; Application[Application] --> Research[Research]; Research --> Output[Output];
```

Application

Research

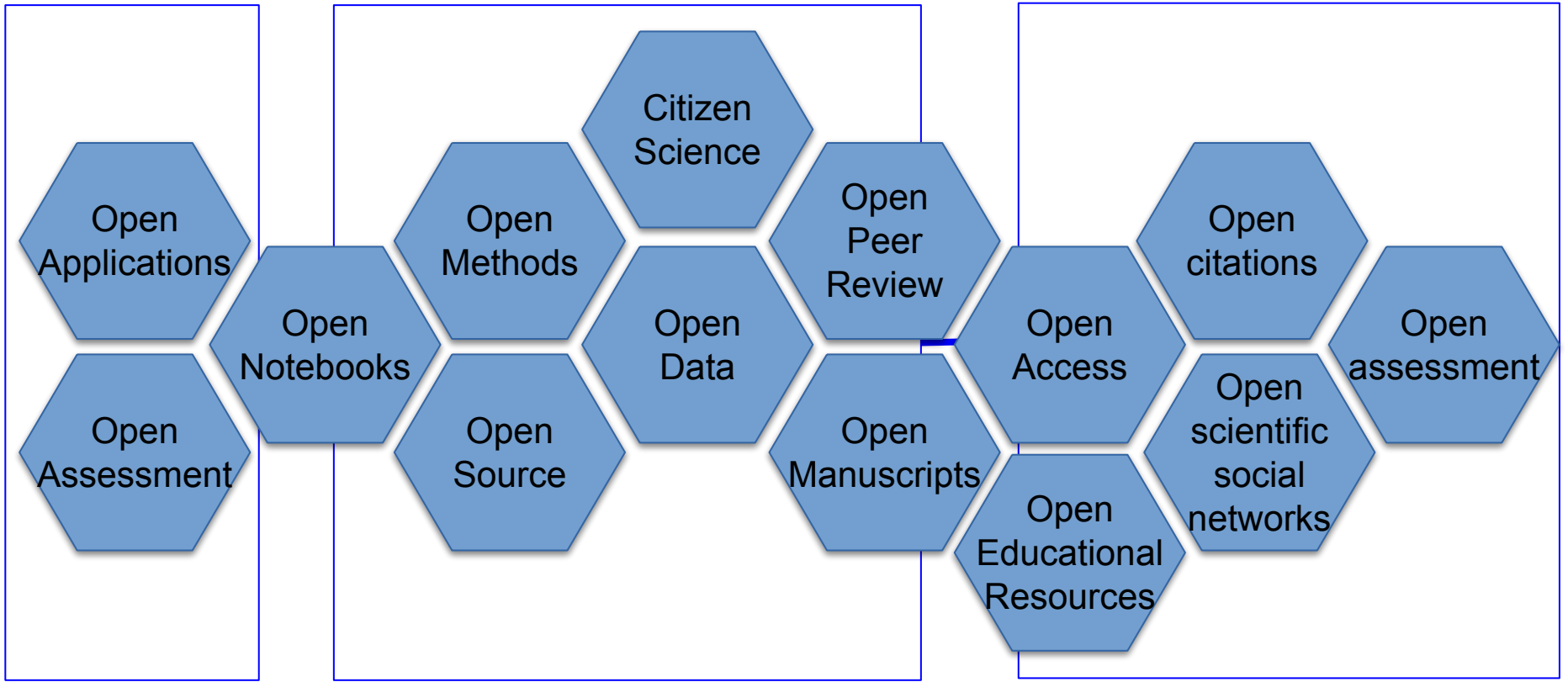
Output

```
graph LR; Application[Application] --> Research[Research]; Research --> Output[Output];
```

Application

Research

Output



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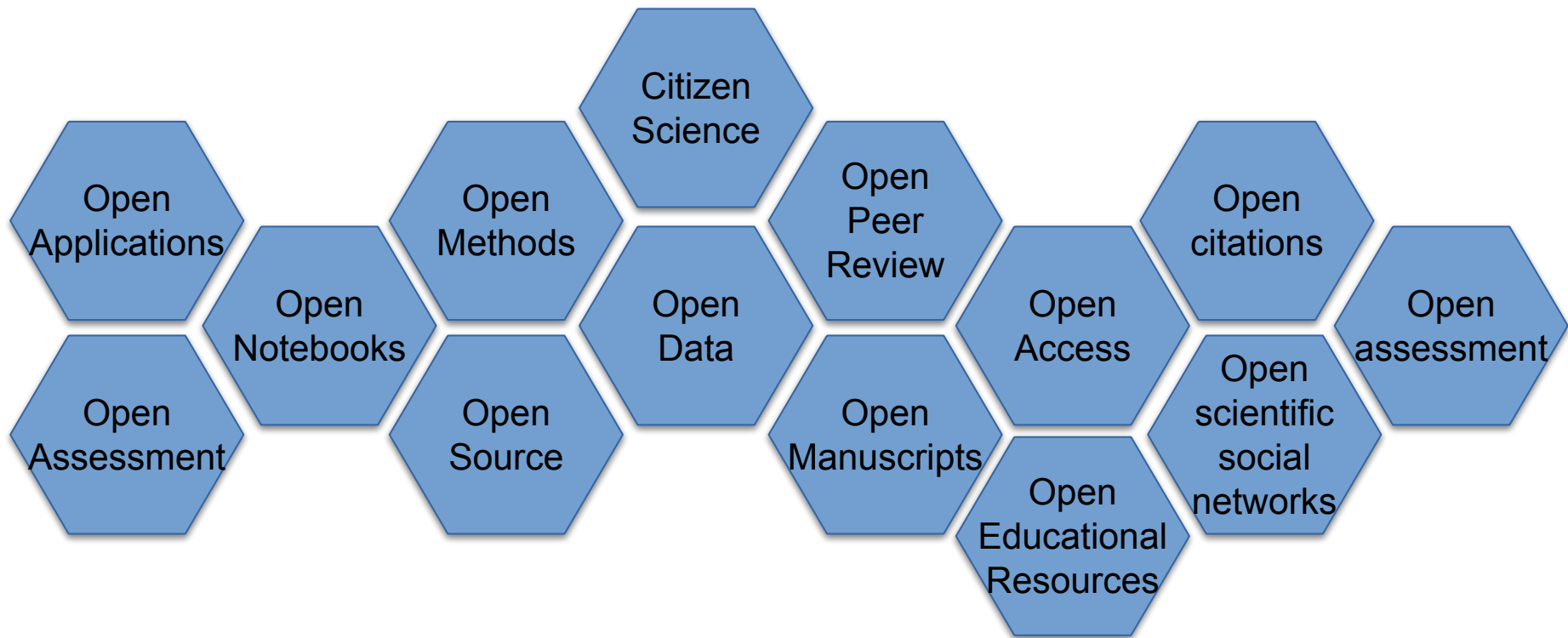
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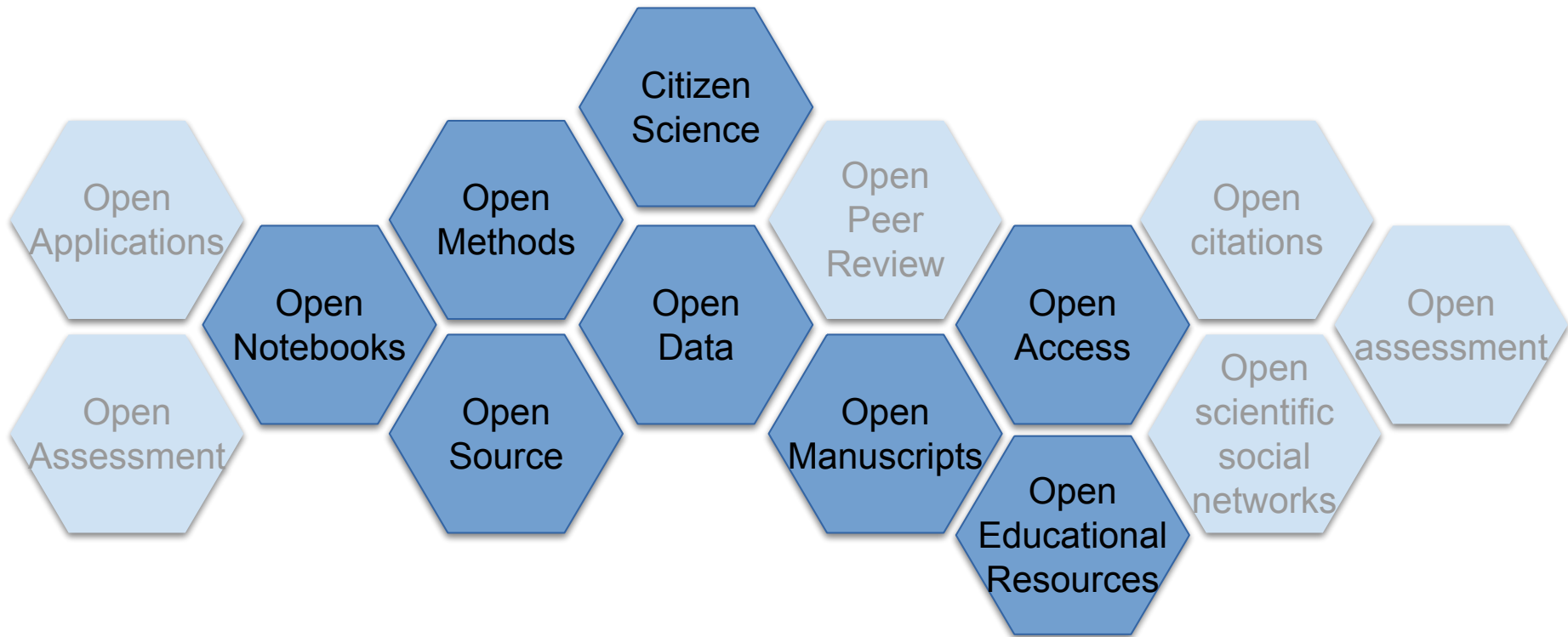
Open Educational Resources

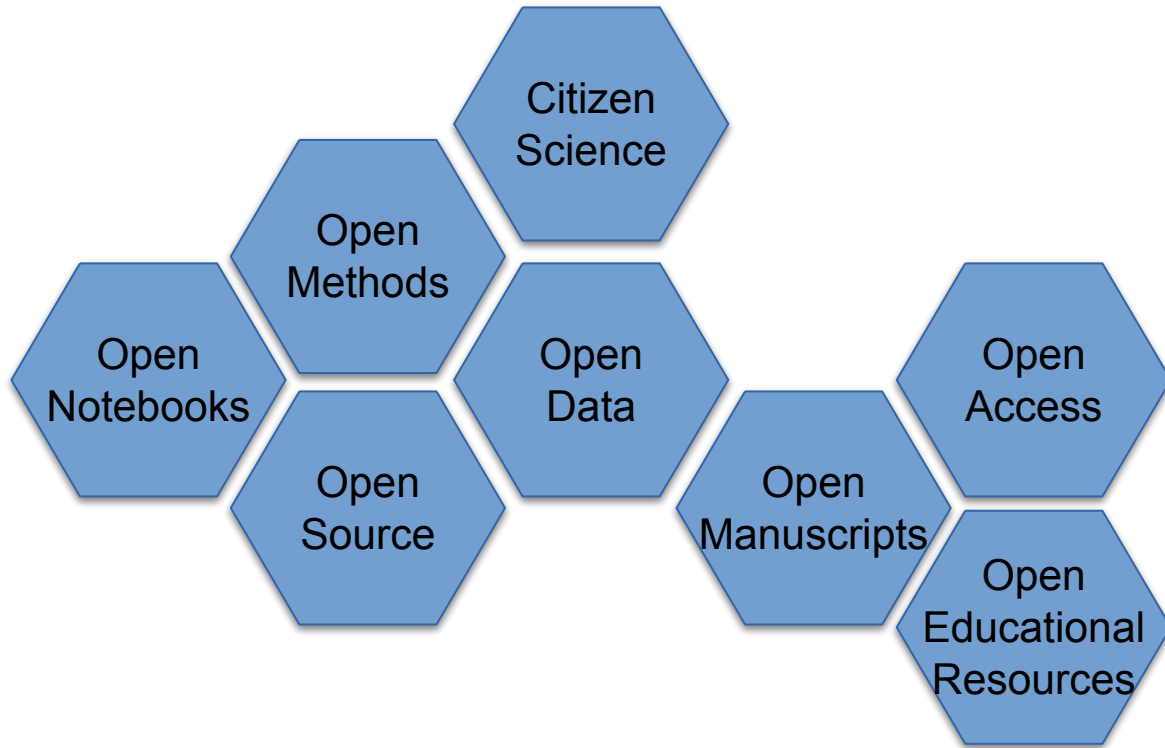
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Open assessment









Open
Access

Source files for the anthology "A NIME Reader Fifteen Years of New Interfaces for Mus

nime music interfaces hci puredata max supercollider musical-instruments musical csound

Manage topics

14 commits 1 branch 0 packages

Branch: master New pull request

alexarje Adding ignores

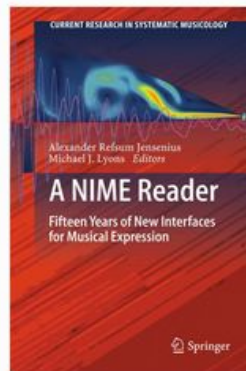
latex Adding line breaks in citations

.gitignore Adding ignores

README.md Minor adjustments

README.md

Source files for the anthology A NIME Reader — Fifteen Years of New Interfaces for Musical Expression, ed. by Alexander Refsum Jensenius (University of Oslo) and Michael J. Lyons (Ritsumeikan University) and published by Springer in 2017.



A NIME Reader

Fifteen Years of New Interfaces for Musical Expression

Editors (view affiliations)

Alexander Refsum Jensenius, Michael J. Lyons

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20k

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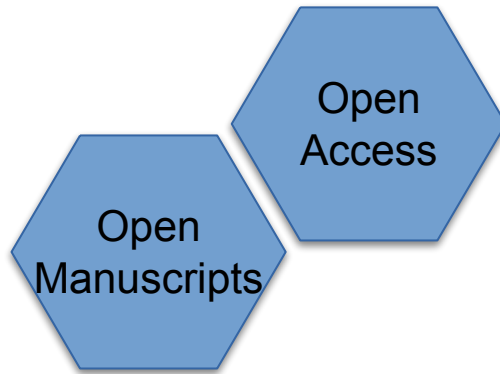
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Introduction

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images



kapitler



Book.txt



credits.md



credits.txt



introduction.txt



preface.txt

Leanpub

- + Markdown
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- No version control
- No citations
- Not academic publisher

Gitbook



NIME Conference Cookbook

Steering >

Officers >

Info >

Chairs >

NIME Conference Cookbook

Edit on GitHub

This book is a semi-public working document for the organization of the [NIME conference](#) series. It is split into a section for the [chairs](#) of the annual conferences, and another for the [officers](#) responsible for the general operations of the community.

If you want comment on anything or get write access to the Cookbook, please get in touch with the [chair of the SC](#).

Next

Steering



NIME Conference Cookbook

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🌿 2 branches

📦 0 packages

📦 0 releases

👤 5 contributors

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alexarje More details about the meta-review

✔ Latest commit 14d22ee on Oct 9

📁 Chairs	More details about the meta-review	2 months ago
📁 Info	Fix headers	2 months ago
📁 Officers	Adding info about Zenodo upload.	4 months ago
📁 Steering	Splitting up into separate pages.	5 months ago
📄 README.md	Addin link	3 months ago

📄 README.md



NIME Conference Cookbook

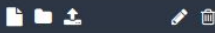
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Gitbook

- + Markdown
- + Version control
- No citations
- Not academic publisher

Overleaf



Source Rich Text

Recompile

- LaTeX_DL_468198_
- Figures
 - amplitudes_fu...
 - amplitudes_fu...
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 - fft.pdf
 - Figure_1.jpg
 - Figure_2.jpg
 - Figure_3.jpg
 - Figure_4.jpg
 - Figure_5.jpg
 - qomexample1...
 - segment_qom...
- example.eps
- history.txt
- NM18_Lit.bib
- readme.txt
- spbasic.bst
- smpsci.bst
- spphys.bst
- svglov3.clo
- svjour3.cls

```

1 %~~~~~ file template.tex ~~~~~
2 %
3 % This is a general template file for the LaTeX package SVJour3
4 % for Springer journals. Springer Heidelberg 2010/09/16
5 %
6 % Copy it to a new file with a new name and use it as the basis
7 % for your article. Delete % signs as needed.
8 %
9 % This template includes a few options for different layouts and
10 % content for various journals. Please consult a previous issue of
11 % your journal as needed.
12 %
13 %~~~~~
14 %
15 % First comes an example EPS file -- just ignore it and
16 % proceed on the \documentclass line
17 % your LaTeX will extract the file if required
18 \begin{filecontents*}{example.eps}
19 %!PS-Adobe-3.0 EPSF-3.0
20 %%BoundingBox: 19 19 221 221
21 %%CreationDate: Mon Sep 29 1997
22 %%Creator: programmed by hand (JK)
23 %%EndComments
24 gsave
25 newpath
26   20 20 moveto
27   20 220 lineto
28   220 220 lineto
29   220 20 lineto
30 closepath
31 2 setlinewidth
32 gsave
33   .4 setgray fill
34 grestore
35 stroke
36 grestore
37 \end{filecontents*}
38 %

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Noname manuscript No.
 (will be inserted by the editor)

Analysis of the movement-inducing effects of music through the fractality of head sway during standstill

Victor González Sánchez¹ · Agata Żelechowska¹ · Alexander Refsum Jensenius¹

Received: date / Accepted: date

Abstract The links between music and human movement have been shown to provide insight into crucial aspects of human's perception, cognition, and sensorimotor systems. In this study, we examined the influence of music on movement during standstill by analyzing head sway fractality, with the aim of further characterizing the correspondences between movement, music, and cognition. Eighty seven participants were asked to stand as still as possible for 500 seconds while being presented with alternating silence and musical stimuli. The stimuli were all rhythmic in nature, ranging from a metronome track to complex electronic dance music. The head position of each participant was captured with an optical motion capture system. Long-range correlations of head movement were estimated by detrended fluctuation analysis (DFA). The results support findings from previous work on the movement-inducing effect of music, showing significantly greater head sway and lower head sway fractality during the stimuli. In addition, the patterns across stimuli suggest that there is a two-way adaptation process, with the music stimuli influencing head sway while at the same time fractality modulated movement responses. The results indicate that fluctuations in head movement in both conditions exhibit long-range correlations, suggesting that the effects of music on head movement depended not only on the value of the most recent measured intervals, but also on the values of those intervals at distant times.

Keywords embodied music cognition · fractals · perception · movement · synchronization

V. Gonzalez Sanchez

¹RITMO Centre for Interdisciplinary Studies in Rhythm, Time and Motion
Department of Musicology
University of Oslo

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- + BibTeX
- + Collaborative
- Old school
- No data integration

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12 VIEWS

gibberwocky: New Live-Coding Instruments for Musical Performance

 **Charlie Roberts** **Alexander Refsum Jensenius** (University of Oslo)

Abstract

We describe research extending the gibberwocky live-coding environment to integrate with Max/MSP and support MIDI messaging. We discuss lessons learned while performing with gibberwocky, and they informed the addition of animated sparkline visualizations depicting modulations to performers and audiences.

May 15-19, 2017, Aalborg University Copenhagen, Denmark.

```
Gibber x +
← → ↻ 127.0.0.1:10000/playground/ 🔍 ☆ 🗑
drms = EDrums()
drms.tidal( '[kd,oh] [sd <cp cb>] ch*4' )
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Authorea

- + LaTeX & Markdown
- + BibTeX
- + Collaborative
- + Comments
- + Interactivity (kind of)
- Longevity

Jupyter Notebook

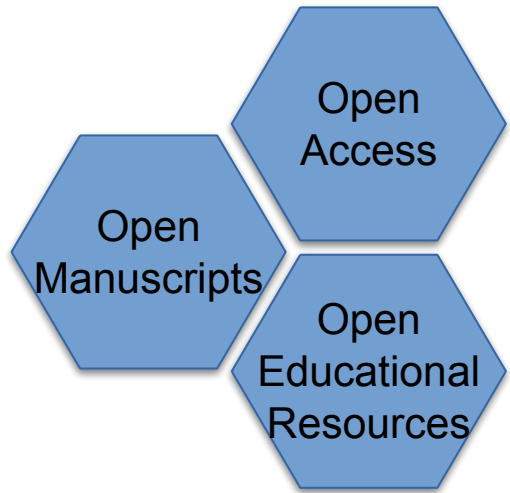
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Archiving?

Credit, honour and “points”?



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Music Moves

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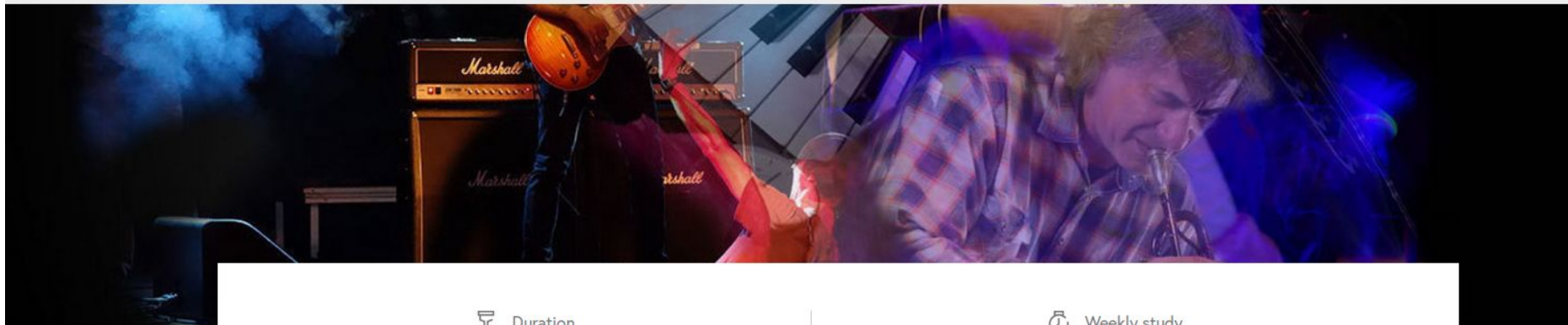
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Online course in [Creative Arts & Media](#)

Music Moves: Why Does Music Make You Move?

Learn about the psychology of music and movement, and how researchers study music-related movements, with this free online course.

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Duration
6 weeks



Weekly study
3 hours



Hi Alexander Refsum, here's the last step you visited:

3.14 MOTION CAPTURE SYSTEMS ARTICLE

WEEK 1 INTRODUCTION & HISTORY

Welcome to Music Moves

Let's get started! First you will get to know the educators and then you can introduce yourself to your fellow learners.

1.1 MEET THE EDUCATORS VIDEO (03:00)

1.2 INTRODUCE YOURSELF AND MEET YOUR FELLOW LEARNERS DISCUSSION

Historical Overview

A brief historical overview on how the listening experience has evolved.

1.3 A HISTORICAL PERSPECTIVE ARTICLE

1.4 THE HISTORY OF LISTENING EXPERIENCE - PART 1 VIDEO (04:00)

1.5 THE LISTENING EXPERIENCE UNTIL THE 20TH CENTURY ARTICLE

1.6 THE HISTORY OF LISTENING EXPERIENCE - PART 2 VIDEO (03:58)

1.7 THE LISTENING EXPERIENCE IN THE 20TH CENTURY ARTICLE

1.8 SITTING STILL VERSUS MOVING DISCUSSION

1.9 QUIZ ON HISTORICAL OVERVIEW QUIZ

1.10 COURSE OUTLINE ARTICLE

Music-Related Body Movement

When talking about music we need to agree on the same concepts to avoid misunderstandings. In this video we start off with an introduction to key terminology.

1.11 WHY IS TERMINOLOGY IMPORTANT? ARTICLE

1.12 MUSIC-RELATED BODY MOVEMENT VIDEO (03:22)

1.13 CHECK YOUR KNOWLEDGE - TERMINOLOGY QUIZ

Introduction to Research Methods

There are many different approaches and methods available when studying music.

1.14 HOW CAN WE STUDY MUSIC-RELATED BODY MOVEMENT ARTICLE

1.15 METHODS FOR STUDYING MUSIC-RELATED BODY MOVEMENT VIDEO (04:00)

A wrap-up of Week 1

What have we learnt so far this week and what has pleased?

1.16 DISCUSSION ON WEEK 1 DISCUSSION

1.17 WEEK 1 WRAP-UP VIDEO (04:00)

Music-Related Body Movement

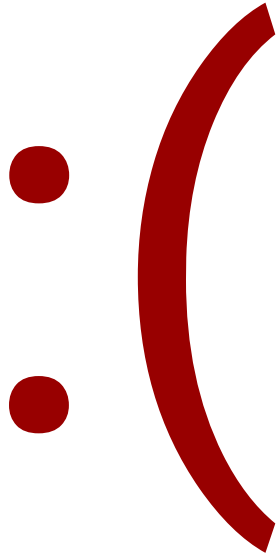
When talking about music we need to agree on the same concepts to avoid misunderstandings. In this video we start off with an introduction to key terminology.



1.11 WHY IS TERMINOLOGY IMPORTANT? ARTICLE

1.12 MUSIC-RELATED BODY MOVEMENT VIDEO (03:22)

1.13 CHECK YOUR KNOWLEDGE - TERMINOLOGY QUIZ



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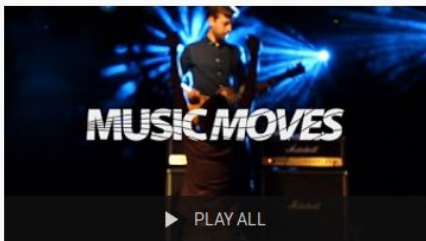


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 - FourMs Lab
 - UniOslo_RITMO
 - wmbgfiddle
 - MCT_master
 - siliconluthier
 - WoNoMute - Wo...



Music Moves - a free online course (UniOslo)

27 videos • 1,056 views • Last updated on Apr 2, 2018





Music Moves - a free online course from the University of Oslo:
<https://www.futurelearn.com/courses/m...>


Music is movement. A bold statement, but one that we will explore together in this free online course.


Together we will study music through different types of body movement. This includes everything from the sound-producing keyboard actions of a pianist to the energetic dance moves in a club.


You will learn about the theoretical foundations for what we call embodied music cognition and why body movement is crucial for how we experience the emotional moods in music. We will also explore


- 


Music Moves - a free online course from the University of Oslo
UniOslo_IMV 1:54
- 

Music Moves: Week 1 Video 1 Meet the educators
UniOslo_IMV 2:03
- 

Music Moves: Week 1 Video 2 The history of listening experience part 1
UniOslo_IMV 6:04
- 

Music Moves: Week 1 Video 3 The history of listening experience part 2
UniOslo_IMV 5:59
- 

Music Moves: Week 1 Video 4 Music related body motion
UniOslo_IMV 3:23
- 

Music Moves: Week 1 Video 5 Methods for studying music related body motion
UniOslo_IMV 6:03
- 

Music Moves: Week 2 Video 1 Perception as an active process
UniOslo_IMV 5:44



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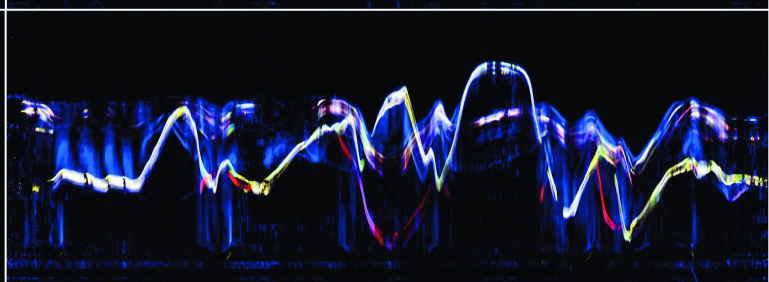
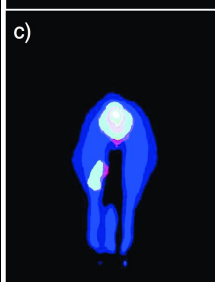
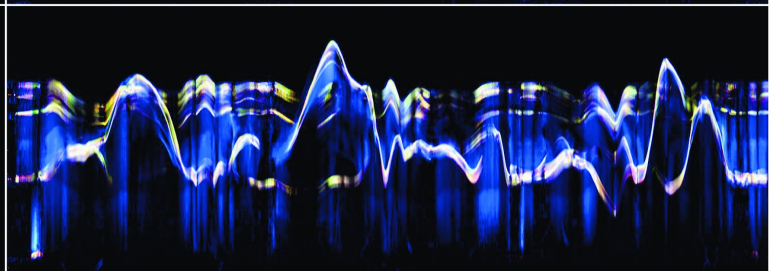
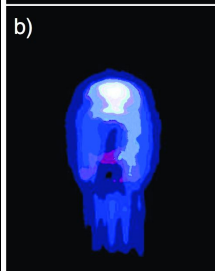
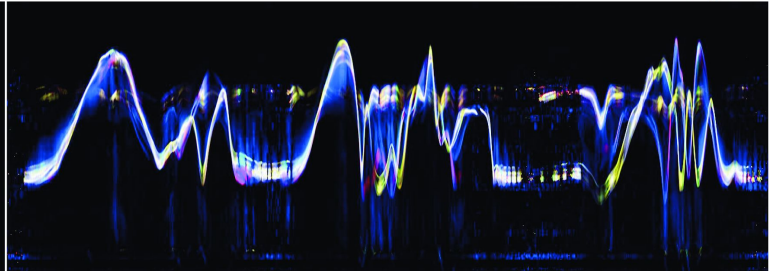
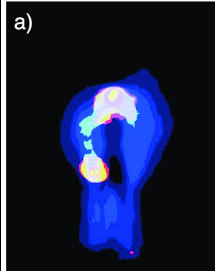
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Motion average images

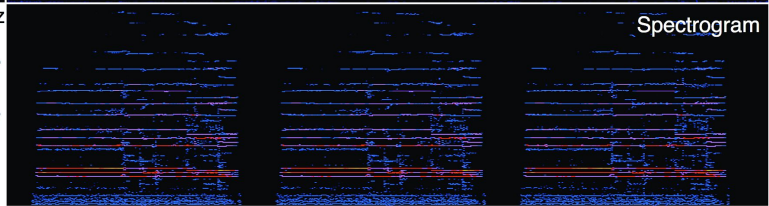
Motiongrams



4 kHz

Spectrogram

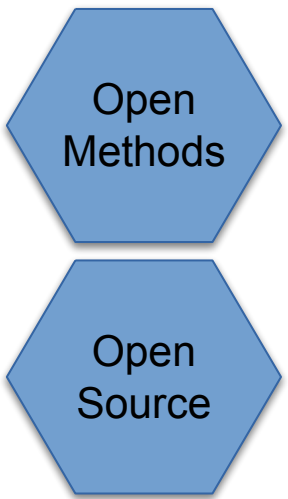
Frequency



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video

open stop

source: cam1 front-320.mpg

rate: 1.0000000 0

video

brightness: 0.15 contrast: 0.55

saturation: 1.0 monochrome:

video

alpha key: alpha 1

beta key: alpha 2


alpha: alpha

format mode:

track:

from autoresize @width 240

from autoresize @height 240



doesn't understand 'set'

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memory error

video

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alpha:

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0 sample rate

keyframe

image

image

from autoresize @width 500 Time-sampled keyframe display





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Musical Gestures Toolbox for Matlab <http://www.uto.no/english/research/gr...>

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220 commits 1 branch 0 packages 0 releases 3 contributors

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This branch is 70 commits ahead of benlyyan:master. Pull request Compare

alexarje	Update README.md	Latest commit ba6e36c 8 days ago
doc	fixing typo	8 months ago
example	New example file	2 years ago
source-code	fixing typo	8 months ago
MGT_MANUAL.pdf	Add files via upload	3 years ago
README.md	Update README.md	8 days ago
generate_documentation.m	Adding documentation	2 years ago

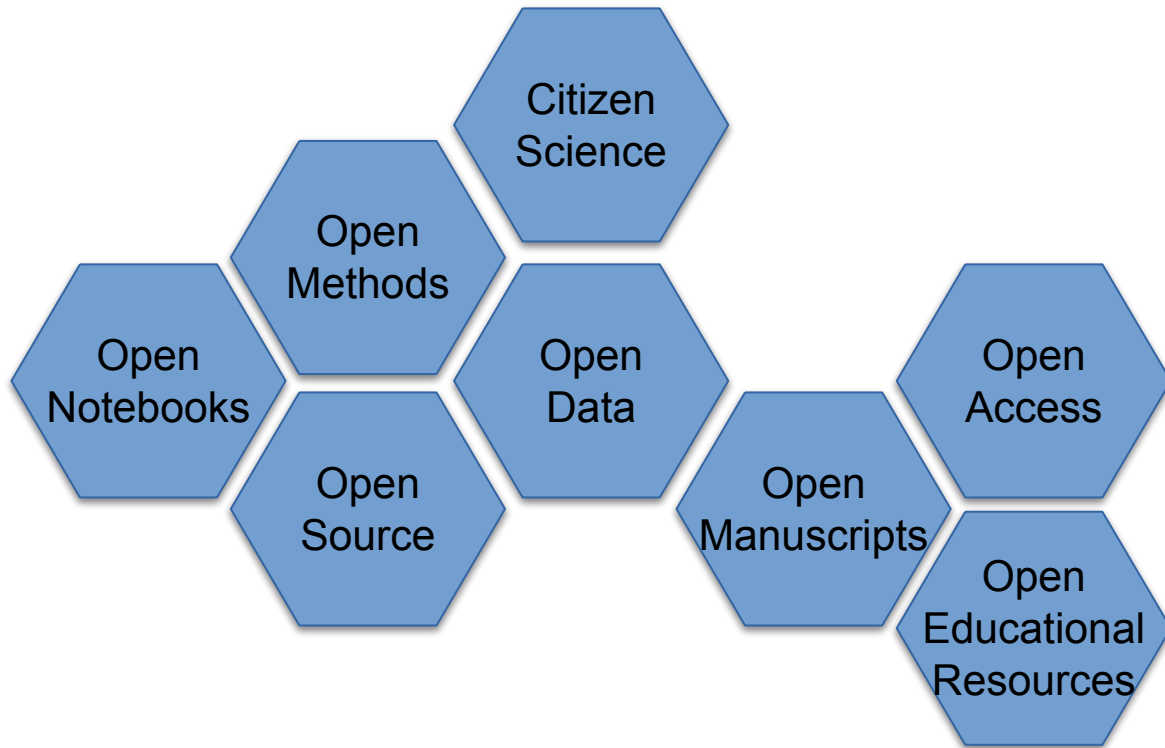
README.md

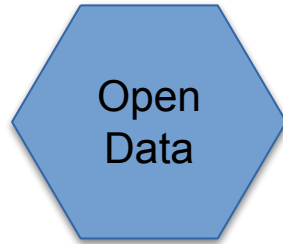
Musical Gestures Toolbox for Matlab

The Musical Gestures Toolbox (MGT) is a Matlab toolbox for analysing music-related body motion, using sets of audio, video and motion capture data as source material.



Archiving code





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Data



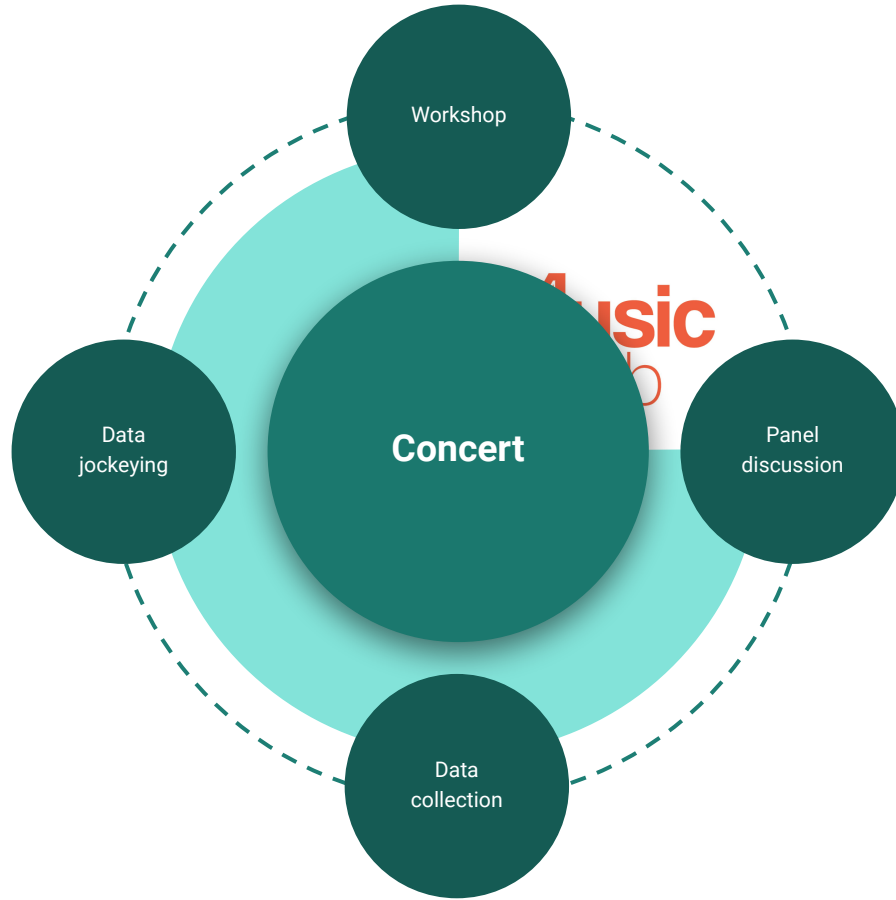
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Music
Lab

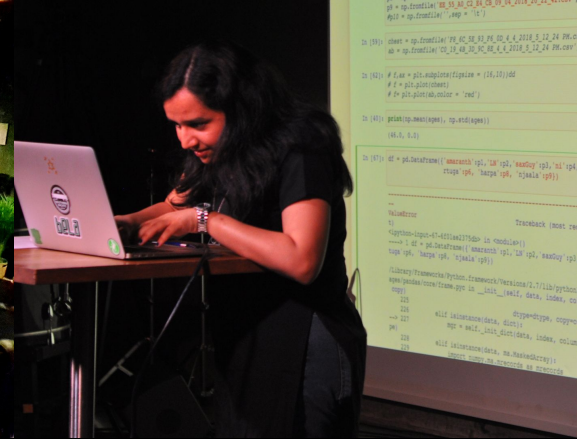
UiO : **Universitetsbiblioteket**





Music
Lab Vol. 1
: BIOPHYSICAL MUSIC





Music
Lab Vol. 1
: BIOPHYSICAL MUSIC



Music
Lab

MusicLab Vol.2

BREATH



Music
hackLab

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MUSICLAB VOL 4 - UTOPIA

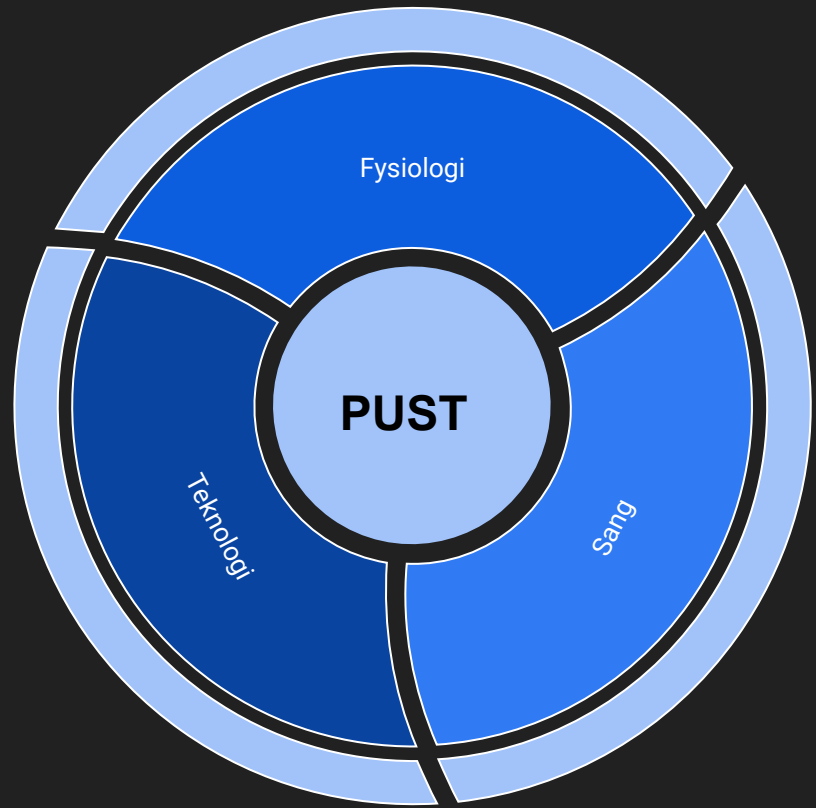
KULTURHUSET (LAB) 2. NOVEMBER AT 1PM - 3PM

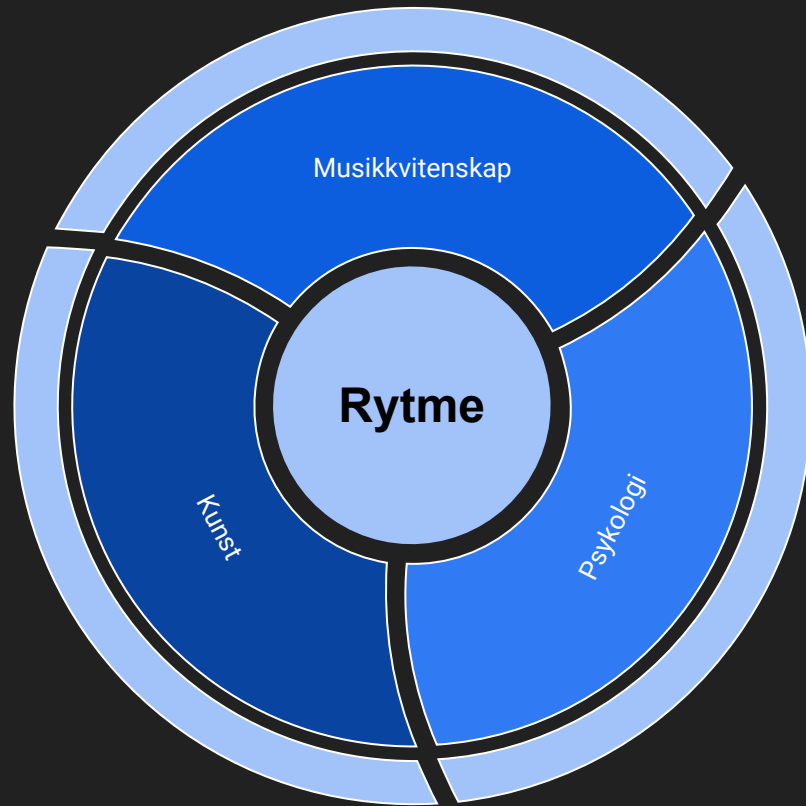


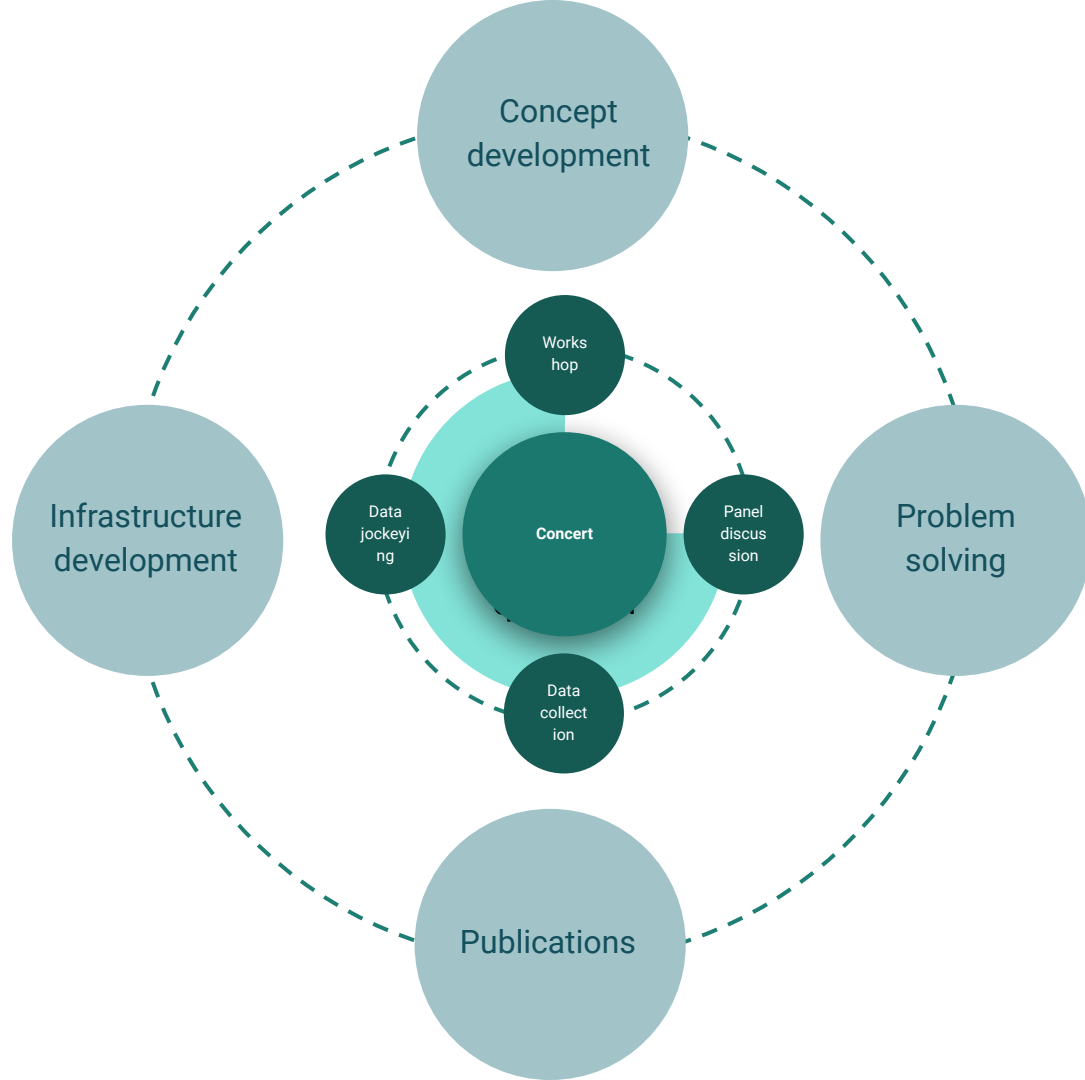
UiO : University of Oslo Library

Music
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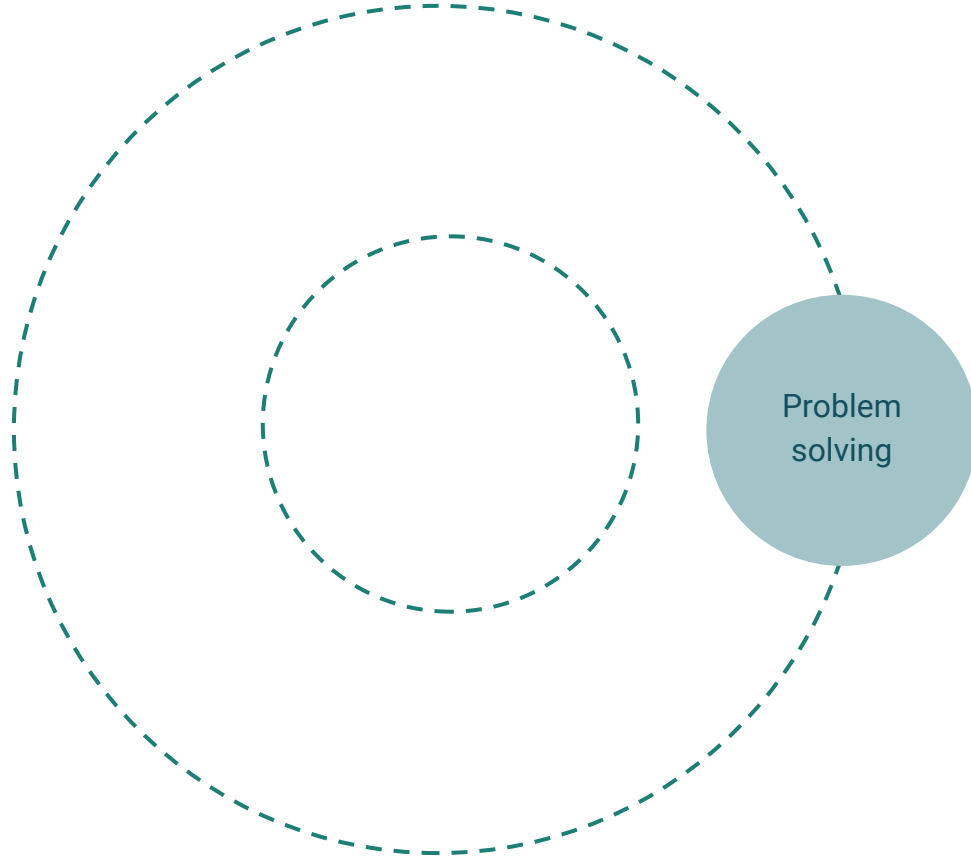








GDPR
Copyright
Storage
Archive





OPEN SCIENCE

GDPR



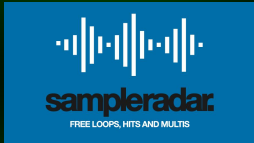
GDPR

	Group 1: Audience	Group 2: Subjects	Group 3: Performers
Data collection	Video filming, thermal camera	On-body sensors (+ filming Group 1)	On-body sensors, filming (+ filming Group 1)
Level of recognition	May be recognizable	Anonymous	Recognizable
Information	web + signs + aural	sheet + aural	sheet + aural
Consent	Silent	Silent	Written
Legal basis	Legal basis: "task in the public interest"	Exempt from consent (no personal information collected)	

Copyright







Copyright

Composers

Lyricists

Performers

Producers

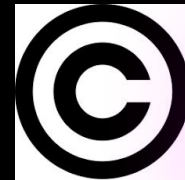
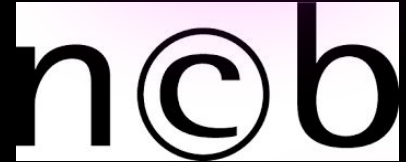
Dancers

Artists

...

GRAMO

TONO



Open Research >||< Copyright Directive

Storage

Storage

Where?

How?

Immediate access (Data Jockeying)

Flexible (hacking from many places)

Fairly large files

Synchronization

Storage

Video: 5x normal, 1x 360, 1x thermal

Audio: 8 channels

Sensors: 13 x accelerometers

Text: 13 questionnaires

Scores: live code

Code: jupyter notebooks

Matlab

Python

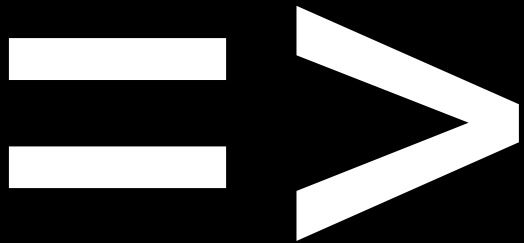
SPSS

R

Max

PD

...



[] repovizz

Multimodal online database
and visualization tool

[See video](#)

login



sign up



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GitHub



WIKIPEDIA
The Free Encyclopedia

zenodo

audio  commons



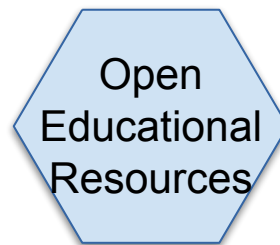
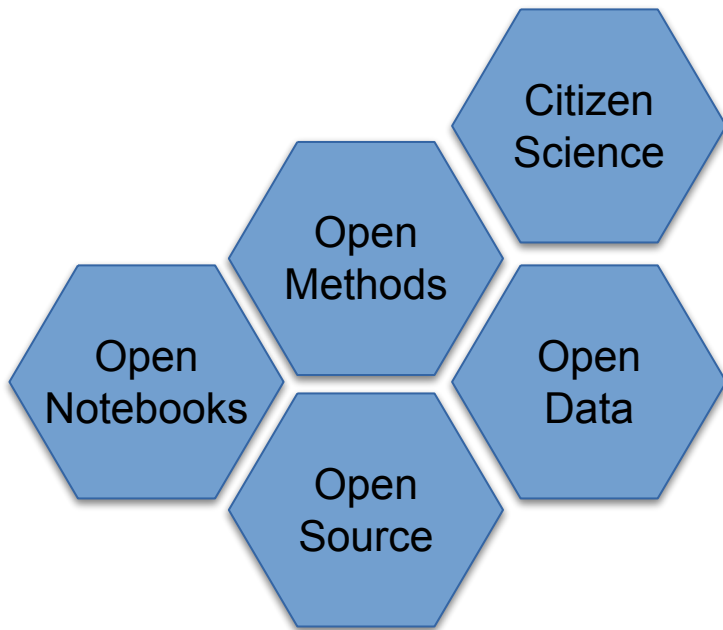
TROMPA

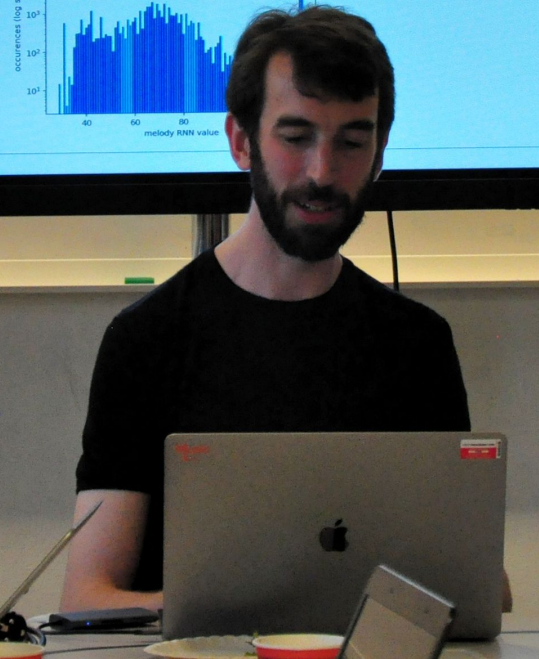
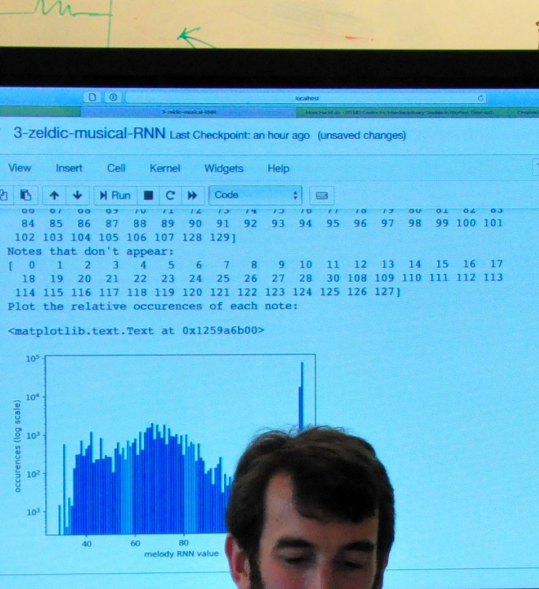
Archive

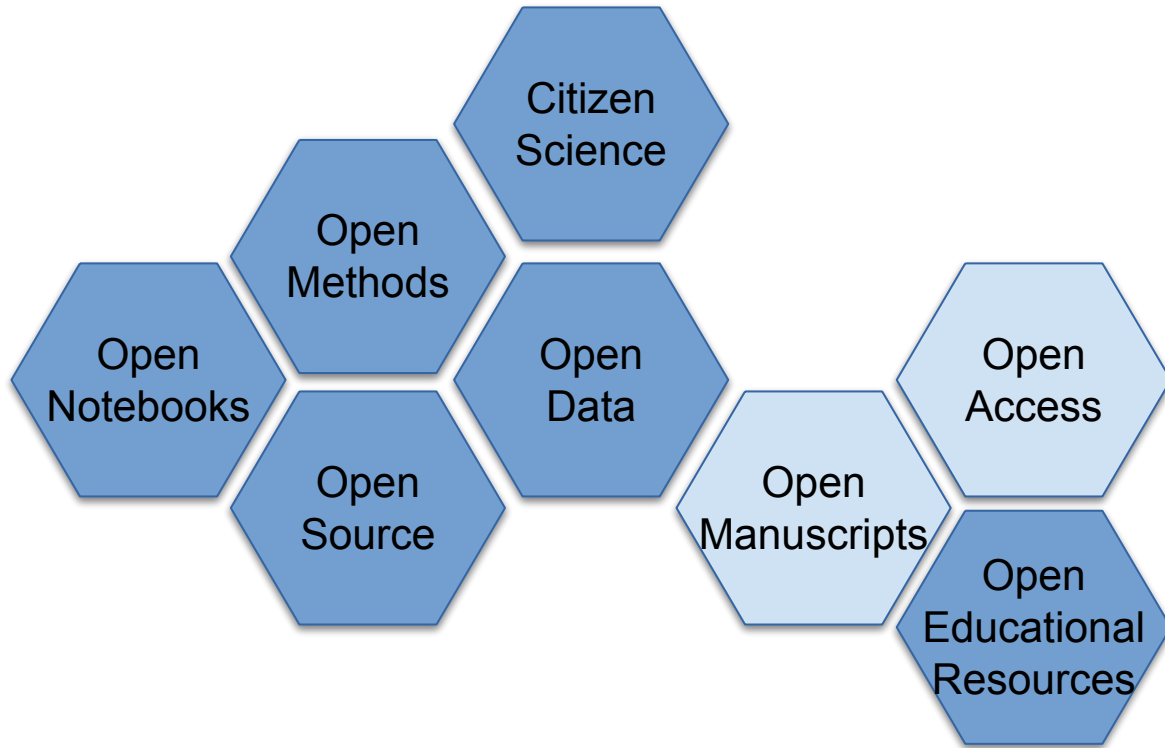
- Where?
- How?
- Who?
- What?

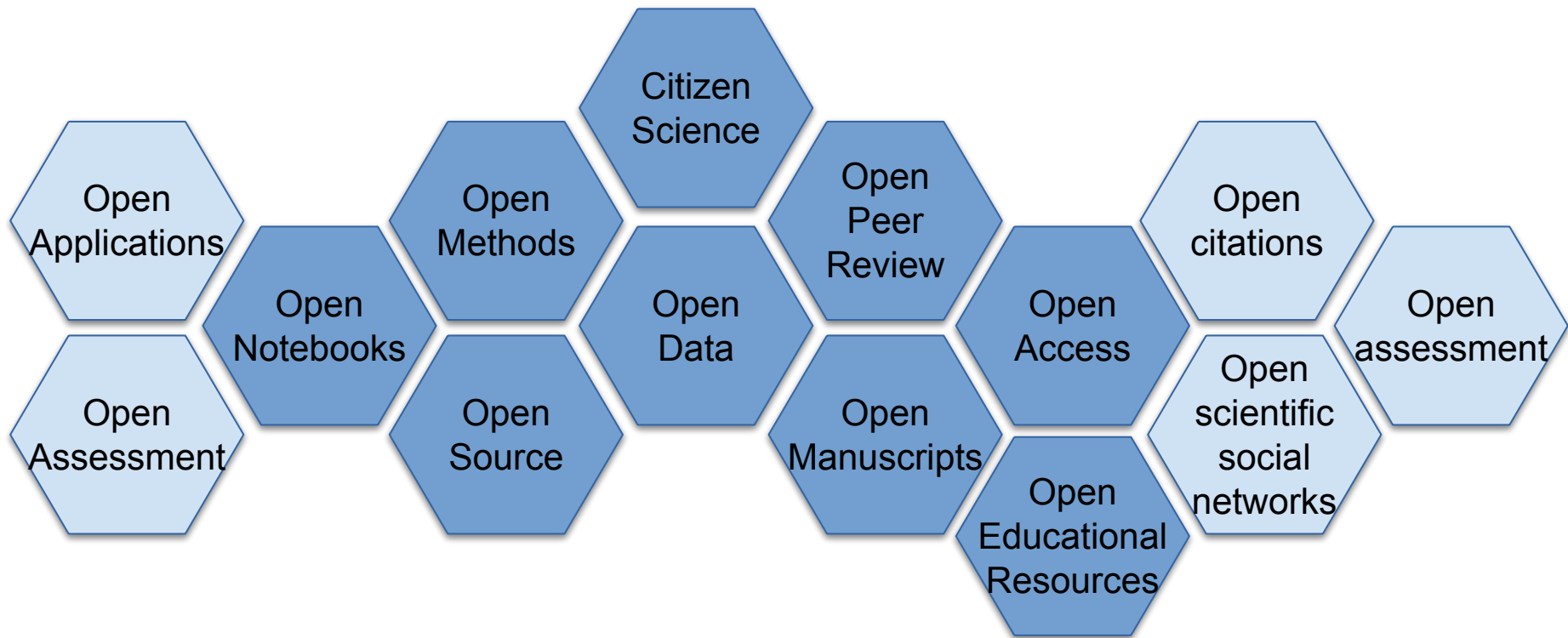


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Music Lab

www.uio.no/musiclab

