First Edition

# Book Title
## Subtitle

Lorem Ipsum Dolor Facilisis

SCHOOL OF MACHINES, MAKING &MAKE-BELIEVE

# FALL COURSES

**We're interested in helping artists learn to use technology to expand their definition of art and in helping tech peeps learn to be more artistic and creative! Wherever you are on that spectrum, we're happy to invite you to join us for our Fall intensive workshops!**

# Hello World!

## Welcome to School of Machines, Making & Make-Believe Fall 2019 courses!

Here at School of Machines, we normally offer four-week full-time intensive programs from April-September, but not everyone has the time or resources to join us. This Fall, we're experimenting with a new programme of shorter evening, weekend, and online classes. just to change things up a bit!

Our hope is to give artists confidence in coding and using digital tools to enhance their work, while playing with pixels, virtual reality, and machine learning algorithms.

At the same time, we want to encourage technologists and well, all of us really, to step away from our screens and starting making things with our hands, like collages and paintings, and electronics and vibrators! Lol. A little something for everybody you might say!

We believe it's not only possible but crucial to wrap our heads around issues like privacy, security, and finance in the digital age.

Which is why we're bringing back our Decentralised AI workshop which focuses on explaining the underlying technology behind cryptography, cryptocurrency, and the like in an extremely approachable way. Because contrary to popular belief, this stuff is not rocket science!

We fucking give a damn about humans in the world right now. We see the value in getting out of our bubbles and into new territories, even if they seem too challenging or alien to us. There is something grand to be said about the places in the middle where people meet, in the interdisciplinary.

On the subject of courage, we're also holding two four-week online classes that aim to help you work through your inner-obstacles to creativity and ensure you're expressing yourself creatively in the world! One class helps you work through this on a personal level by calling on you to be bold(er), one class teaches it through randomness and code!  Again, something for everyone!

Given all these opportunities, we hope to see you around soon!

Warmly,
Rachel Uwa

Creative educator, human, and artist at School of Machines

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## CLASSES & WORKSHOPS

# All The Little Pixels: An Introduction to OpenFrameworks

**Tuesdays,**
**Nov. 13 - Dec. 11**
**7pm - 10pm, CEST**

## COURSE DESCRIPTION

The main tool for this course will be OpenFrameworks, a fabulously powerful creative coding framework which over the years has been developed specifically with artists and creatives in mind, to make learning to code less daunting and more inclusive and fun!

This course will introduce you to OpenFrameworks and some of it's core features, allowing you to unleash your art and creativity into the world in ways you may not have previously considered!

## WHAT YOU WILL LEARN?

- To love programming with the same unhealthy passion that we do.
- The basic concepts of working with code and openFrameworks.
- You will be equipped with enough knowledge to continue expanding your understanding of programming.
- You will know where and how to look for more information.
- To express yourself creatively through using code.

## WHO IS THIS COURSE FOR?

The workshop is suited for anyone interested in familiarising themselves with code, and particularly suited for visual artists and designers keen to augment their practice.

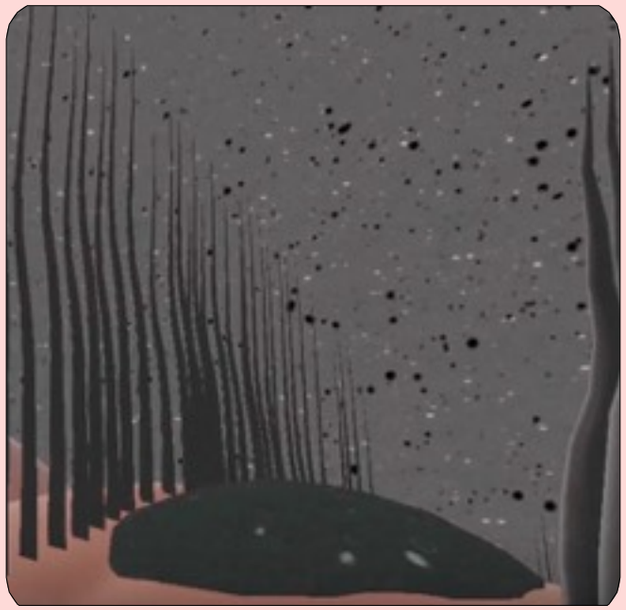
## NO EXPERIENCE NECESSARY.

Women and persons from LGBTQ+ and other underrepresented * communities in the tech field highly encouraged to attend.

**FOR MORE INFO AND TO REGISTER, CLICK HERE.**

# Other Worldly: A Creative Intro to Unity for VR

**Wednesdays,**
**Nov. 14 - Dec. 12**
**7pm - 10pm, CEST**



## COURSE DESCRIPTION

This class focuses on tools to allow you to create your own virtual reality (VR) experiences. VR is a medium that compels us to explore artistic creation, storytelling, and interactivity. The technologies needed to create and view VR content are now available to everyone.

This course will walk you through the basics of using Unity software to create your own virtual reality applications that can be viewed on mobile phones using a cardboard headset.

## WHAT YOU WILL LEARN?

- Tools to turn your artwork into VR experiences.
- Basic concepts of working with code, in particular with C#.
- The basics of the Unity interface and scripting frameworks.
- How to make your work interactive and import and animate assets
- How to deploy and view a experience on an Android phone.
- Knowledge to continue expanding your understanding of programming.

## WHO IS THIS COURSE FOR?

Perfect for designers, artists, musicians, storytellers, animators and anyone else who wants to get familiar with Unity and take their work into virtual reality.

## NO EXPERIENCE NECESSARY.

Women and persons from LGBTQ+ and other underrepresented * communities in the tech field highly encouraged to attend.

**FOR MORE INFO AND TO REGISTER, CLICK HERE.**

# Real and Present: Performativity and Technology as Painting Practice

**Saturdays,**
**Jan. 19 - Feb. 9**
**11am - 3pm, CEST**

This course will introduce you to the physicality of a rigorous art practice which builds on itself through drawing, collage, painting, and 3D modeling techniques.

This course offers an approach to painting which highlights engagement with materiality and physicality rather than art simply as a mental or conceptual exercise. So as to get us out of the mode of over-thinking, impulsiveness and spontaneity are encouraged!

This painting course will be playful and interactive and cover topics such as materiality, tactility, physicality, rhythm, composition, memory, experience, layering, and image contruction, while taking drawings into collage and painting in larger scale with several stages in-between.

## WHAT YOU WILL LEARN?

- To love art with the same unhealthy passion that we do.
- The foundations of working with drawing, collage, and painting.
- Basics of 3D modeling as a tool for working through ideas of composition.
- You will be equipped with enough knowledge to continue expanding your understanding of painting as practice.
- To express yourself creatively through making art.

## WHO IS THIS COURSE FOR?

The main hope of this course is to wean technologists and other humans off of their computer screens and out making creative works with your hands!

This workshop is a perfect match for creators and thinkers interested in problem solving using tools of play and the performative potential of 3D modelling combined with drawing, collage and painting.

## NO EXPERIENCE NECESSARY.

Women and persons from LGBTQ+ and other underrepresented * communities in the tech field highly encouraged to attend.

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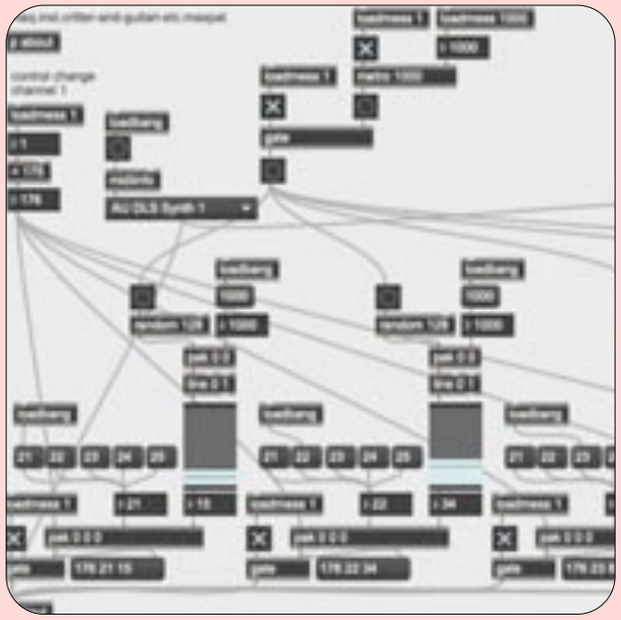
# Randomness Is All Around: An Online Multimedia Arts Class

**Mondays,**
**Jan. 14 - Feb. 4**
**7pm - 10pm, CEST**



The main goal for this online course is to explore the brilliance of randomness as a tool for programming sound art, computer graphics, and video manipulation through hands-on exercises.

Using computers to create mathematical models of randomness allows you to quickly begin to incorporate generative and unpredictable outcomes into your art practice. It's easier than you might think. We'll show you how!

Over four-weeks, you'll learn math for randomness, and dig in to probabilities, and how to use code for audio synthesis and manipulation, computer graphics, video manipulation, and web applications.

## WHAT YOU WILL LEARN?

- To love programming with the same unhealthy passion that we do.
- Basic concepts of working with code.
- The basics of the Unity interface and scripting frameworks.
- Robust knowledge to continue expanding your understanding of programming.
- To express yourself creatively through using code for producing audio-visual artworks.
- To make generative, unpredictable art pieces.

## WHO IS THIS COURSE FOR?

Any artist, programmer, musician, designer, or creative that wants to understand how to use randomness effectively to control events and make your creative work more organic or unpredictable.

## NO EXPERIENCE NECESSARY.

Women and persons from LGBTQ+ and other underrepresented * communities in the tech field highly encouraged to attend.

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# Be Bold(er): An Online Creative Mentorship

**Thursdays,**
**Jan. 15, to Feb. 5,**
**7pm - 10pm, CEST**

Navigating your place in the world can be complex. Are you producing the kinds of creative work you wish to see in the world? Are you doing it as often as you'd like?

How can your work benefit from you just being bold(er)?

This class is an invitation for creative microdosing on being bold!

The main goal for this four-week online mentorship program is to explore hands-on what it means to be bold in the modern age, to get past your creative insecurities, and to begin to create more of the kinds of work you wish to see in the world!

## WHAT YOU WILL DO?

- Discuss examples of boldness at the intersection of art, creative technology, and design.
- Work through creative insecurity.
- Through hands-on experience of getting out of your comfort zone, feel what it means to be bold.
- Express yourself both non-sensically and meaningfully.
- Know what a supportive community feels like.

## WHO IS THIS COURSE FOR?

People who have creative ideas burning inside them but could use a little encouragement to help get them out into the world, and those who know they have something to express but they're not quite sure what or how.

## NO EXPERIENCE NECESSARY.

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# Neural Zoo

**Saturday,**
**Nov. 17**
**11am - 6pm, CEST**

**This course introduces a family of machine learning-based techniques which synthesize, transfer, collage, and remix the styles of images. Using trained neural networks and optimisation algorithms, we can hallucinate new images whose textures resemble one or more source images.**

**During this workshop, students will learn both the theory and practical details of how to implement these stylistic techniques.**

**All students will run their own style transfers, texture syntheses, and design processes combining the two. You will also get to experiment with extended techniques, including generating video, and using multi-scaling and canvas distortion to see some of the nearly limitless palette of aesthetics possible.**

## You WILL LEARN HOW TO

**•setup a cloud computational environment for running GPU-intensive machine learning procedures.**

**•navigate a terminal, jupyter notebook, and git repository for working with open-source command-line utilities.**

**•run style transfer and texture synthesis from custom image datasets.**

**•implement extended techniques including multi-scale rendering, video synthesis, style collage, and other custom pipelines.**

## WHO IS THIS COURSE FOR?

**For artists, designers, and anyone else interested in this emerging discipline. Students are not required to have a technical background -- all materials will be provided, along with tutorials from scratch how to make these.**

## NO EXPERIENCE NECESSARY.

**Women and persons from LGBTQ+ and other underrepresented * communities in the tech field highly encouraged to attend.**

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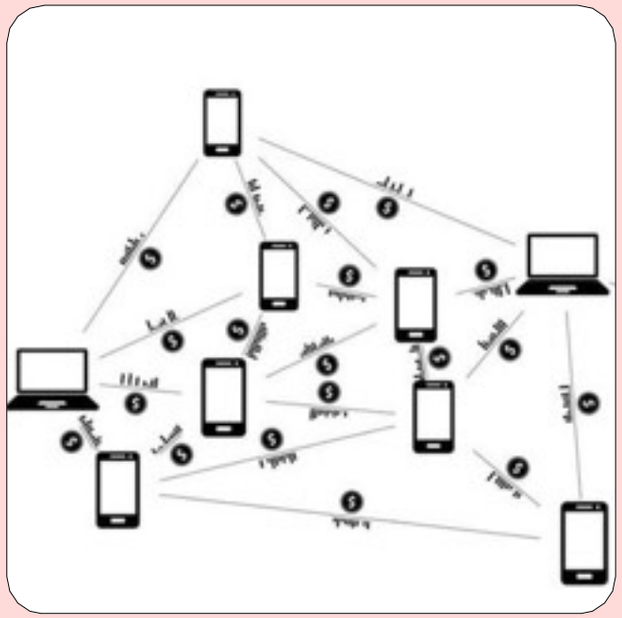
# Decentralised AI

**Sunday,**
**Nov. 18**
**11am - 6pm, CEST**



Blockchains and deep learning are two of the most promising technologies to emerge in the 2010s. Hailing the oncoming "decentralized revolution", Bitcoin-loving venture capitalists are tripping over each other to disrupt every industry from flight insurance to bikesharing.

Meanwhile, major organs of the financial industry, transportation infrastructure, and social media are already largely governed by machine learning algorithms, as increasingly articulate AIs gradually automate various human faculties.

The influence of both of these technologies is further expanded by more of our everyday appliances getting connected to the internet and accumulating data. A primordial soup of ingredients for widespread and distributed AI is forming, and many are beginning to speculate about its potential.

## WHAT YOU WILL LEARN?

- Fundamental components of decentralization technology
- The landscape of cryptocurrencies, second-generation blockchain applications, and the concept of a decentralized autonomous organization (DAO)
- Open-source software projects which seek to enable the decentralization of machine learning models and data.
- Introduction to machine learning
- How deep neural networks make sense of complex multimedia data
- The intersection between AI and blockchains,

## WHO IS THIS COURSE FOR?

Any artist, programmer, musician, designer, or creative that wants to understand how to use randomness effectively to control events and make your creative work more organic or unpredictable.

## NO EXPERIENCE NECESSARY.

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# Touchy Feely: A DIY Vibrator Workshop

**Satuday & Sunday,**
**Dec. 8, 9**
**11am - 5pm, CEST**

Touchy Feely is a DIY vibrator workshop designed to introduce the basics of electronics, hardware and customisable pleasure.

During this workshop you will build your own functioning vibrator, while getting hands-on with the basics of electronics in the process. You'll explore how to make simple changes to the internal and external parts to create a customised and safe-to-use end result.

The workshop will be led by Alice Stewart / Touchy-Feely Tech, a creative technology studio working at the intersection of electronic hardware, art and education.

## WHAT YOU WILL LEARN?

- A history of “stimulation devices” through the ages.
- An introduction to basic electronics and circuitry.
- A clear understanding of the fundamental electronic components - resistors, capacitors, motors etc..
- Specific knowledge relating to the production of vibrators, including the use of microcontrollers and body-safe materials.
- Knowledge on how to customise your vibrator and take its design and functionality further.
- Soldering skills.

## WHO IS THIS COURSE FOR?

Humans interested in electronics and hardware. People who are interested in taking greater ownership over their possessions by learning how things are made!

## NO EXPERIENCE NECESSARY.

Women and persons from LGBTQ+ and other underrepresented * communities in the tech field highly encouraged to attend.

FOR MORE INFO AND TO REGISTER, CLICK HERE.

```
, 0, 0, width, height);
/ We can call both functions to draw all keypoints
rawKeypoints();
rawSkeleton();

text(noseX, 10,10);
text(noseY, 10,30);

  if (poses.length >= 2){
        print("eeeeeeek! a person!");
        fill(0);
        rect(0, 0, 640, 480);
```