Dear reader,

There are a few things you should consider before reading:

- On the left column, you will find the copyright and where to find resources about the project. Most projects are interactive so you should consider those links carefully (videos, apps, dedicated websites, etc).

- On the right column, a description of the project, the themes involved and the context in which they were undertaken, from the input to the final result.

It’s important to mention that this portfolio is a selection of works and should be considered as is. Most of the projects are linked by certain themes, but some others have no semantic relation, the idea being to give an overview.

Pierre-Xavier Puissant
Subtitled «Fostering Art-Science Co-Creation through an Artist Residencies Holistic Framework», this work, done in the context of the European STARTS program, focuses on artist residencies in technological innovation context.

It explores conditions, methods and results of 45 international residencies implemented through the use of a digital tool, and follows up on the legacy of artist residencies in scientific context.

It identifies the challenges for co-creation and their answers in order to reinforce the role or the artists in innovation and co-creation processes.
DÉRIVE

On the web:
https://medium.com/enter-the-epfl-ecal-lab/augmented-augmented-reality-8d17afe38d0
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DÉRIVE is a urban exploration community with a touch of poetry and serendipity.

Based on french philosopher Guy Debord's Psychogeography, the app invites the user to forget the paths that he always follows, and to reinterpret / rediscover its everyday environment.

On one hand, an web interface allows creative users to create a Dérive: a set of possible paths to follow, based on a set of criteria. Each path is made up of places, for which the user has to create audio content - music, stories... Paths can cross, leading to multiple cases for each place.

On the other hand, an AR app allows urban wanderers to experience these Dérives, based on their current location. The app is hands-free, non-constraining, as all instructions are given through sounds, allowing the user to focus on the hic et nunc and triggering its imagination.
Lausanne is the city where I grew up. Through its history, it has been fed by the benefits of immigration, ranking it in the top 3 of Switzerland’s most young and cosmopolitan cities.

I’ve been the privileged witness of this blossoming diversity, of the evolution of this social fabric, of this cultural, linguistic, religious blending. Diversity is vector of progress, spearhead of a common future.

Behind number there are people. I wanted illustrate that diversity and to give a voice to these identities that create the face of the city - and the more voices, the more accurate the portrait. LOUSONNA is a VR experience where citizens retrace and narrate their story. Who they are, where they come from, what led them or their ancestors to Lausanne and made them be part of it.

With a speaker’s personal picture as a starting point, the experience focuses on the oral tradition of storytelling.
During my internship at fabric.ch, I was asked to design a fully 3D-printable sensor case which would host a Raspberry PI and a range of various sensors, from humidity to gas, including UVs or even proximity.

The constraint of the project was that the cases had to fit the best to the office environment, and to hide in it or look as an extension of it; in fact to endorse the role of a case but also a work utility one.

As it was my first experience with a 3D printer, I made a lot of researches and tried as many designs as possible. I ended up with the idea of a glitch popping from an electrical button, present in all the rooms of the office. I gave them various forms to fit to other tasks: pen holder, key holder, etc... while still caring that this secondary function would not impede the sensors.

I also programmed the Raspberry PI and sensors for them to send the data to a web monitoring platform at regular intervals.
In the context of an exhibition that was supposed to take place at the MCBA but finally never made it into the light, I did researches on various propositions of setups around the main theme of «sensible structure», which means an object / sculpture / environnement that would gather and / or output data from the visitors.

The following images are a selection of researches about 3 possible structures, always tinged with an idea and an aesthetic of global and unfriendly monitoring.
3D Renders - Researches on an Interactive Sculpture
© PUISSANT / 2015
«LOW RES AWAY» is a modular telepresence system of which this is the first module. The goal of this work was to extend one of the reflexions of my Bachelor Thesis: the idea that the instantaneousness of the Net «makes geography obsolete», meaning being in a place on Earth and still being able to witness a remote place, far away, creating ubiquity.

As most of this ubiquity is based nowadays on sight, I decided to focus on hearing, and to work on the sound representation of distant weather, a very tangible thing, but that also generates a lot of data. For the sake of tangibility, I wanted to work with simple idiophonic objects rather than basic speakers. For this first module, I worked on rain data, using rainsticks set to stop to a range of defined calibrated angles to create various intensity of rain noises.

A dedicated app allows the user to define a point to retrieve weather data from. The EURI then create an abstract sound composition, replicating a distant reality.
The Temporary Autonomous Zone (TAZ) is a kind of uprising [...], a guerrilla operation that frees a zone [...] then dissolves itself [...] in order to reform somewhere else in space or time. Let’s suppose this «zone» is digital, and not analog. What happens?

This work (my Bachelor thesis) investigates the TAZ concept in the numeric era in the light of a few implementations, the contexts and stakes of which it will try to decipher, peppered with analogic and digital artworks inspired by data fluxus and meteorogical maps.

The thesis is composed of two complementary editions: «TAZ 3D» itself, and «The Dead Drops Investigation», a research on the so-called Aram Barthol project.

«TAZ 3D» won the 2015 EXECAL AWARD, a price awarded to a student for the excellence of his Bachelor Thesis.
«W@nder» is a proposal, an attempt of bringing an automated Dérive into the internet.

As a space (even if virtual), the internet gathers regions, feelings and atmospheres, in which some milestones have been chosen to build a Dérive. Without the constrain of bodies and taking advantage of the properties of the network (speed, remoteness, ubiquity, travelling without moving...), «W@nder» offers you to wander in the internet about a physical place.

The path will always be the same, but you will almost never see the same thing.

The result is an living moodboard, gathered ambiances, with the coolness of a touch of random, in order to break everyday life's routine, inspire you, and to show you things you never knew you were going to see, including 3D models, live social media feeds and StreetViews.
To understand what wander is, we first of all need to introduce the concept of "Dérive".

Guy Debord was a French writer, poet, and debater, founder of the Situationist International. In 1956, as a practice of psychogeography, he introduced the concept of "Dérive", described as "a technique of rapid passage through varied..."
«Robinson» is a box that plays Minecraft on its own, depending on its environnement. It behaves like a beacon that gathers datas such as humidity and temperature that have a knock-on effect on the game.

The idea would be to find diverse interesting climates (cold, warm, wet...?) and to leave Robinson there for a while. Then you can come back, pick it up, plug it to a screen and see what happened!

As the game is playing itself, the human is only a witness of what is being created inside the box, whose design directly refers to the Minecraft block universe.

«Robinson» is part of the Botcaves workshop that took place at ECAL with Matthew Plummer-Fernandez about the I&Iclouds research project.

Exhibited at the «Poetics and Politics of Data» exhibition / HeK, Basel CH.
His behaviour is based on atmospheric values surrounding his box.
«Zou» was realized during a one week journey in Beijing with 15 students from ECAL Media & Interaction Design Bachelor.

Our goals were to work around the topic of quantified self, data logging and also on a reflection about regular picture and movie that people usually records during their own journey. To realize precisely those projects we had to perform 24 hours a day to get our datas and visual materials.

The idea behind «Zou» (which means «walk» in Chinese) was to 3D scan, with cellphones and the use of a dedicated app, all the objects we thought were interesting, curious, unfamiliar and exotic that we encountered. The next step was to create a database from which we could retrieve our favorite 3D scans, and make whatever we wanted out of them.

To present the project, I decided to make a video consisting of a long forward travelling through a selection of scans and some of our friends, beforehand scanned too, with a hint of glitch.
This project is all about generative design. Based on an algorithm that I invented that echoes assembly plans out of a basic input - a wood board and some other modules - I realised a big amount of pieces with no primary use, in a «Mondrianesque», raw style.

The project is made-up of 3 parts: the cut generator and instructions app, the objects themselves and a video introducing the process step-by-step and all the components or tools needed.

As a contextualization, I decided to issue a series of perch for birds, and the project invites the user to produce his own object, as the algorithm is totally open.
Si une ou des planches se décollent:
Laissez fixer à leur emplacement initial à l'aide d'une équerre et des vis
Si ça ne tient pas, laisser tomber.
S'il reste des équerres, les fixer aléatoirement sur la surface de la planche 1.
WHAT YOU NEED

- Anything that can cut wood
- Wood glue
- 3 shelf brackets wide of 3u
- 12 screws long of 4u
- A screwdriver

- A wood board of 100u x 100u x u
- Any size as long as it fit to the scales
- Any kind of wood
- Set the cutting marks as given by the applet
- You will name the pieces in the order in which they will be cut

NOW YOU CAN CUT

- Paste the pieces as said in the applet, in the opposite order of the cut

If the area of the piece is bigger than the last, paste on piece 1

If a piece falls, paste it like this

THERE SHOULD BE NO INTERSECTIONS
«Supersequencer» is a sequencer prototype for a specified number of computers, developed during a one-week workshop led by Andreas Gysin.

The topic of the week was to think about the concept of local network and its physical dimension - a determined place. As we had dozens of iMacs set in rows of 6, we thought it would be interesting to have a playback head going through them in a specified order.

What came out is that we finally got more interested in audio sequencers and decided to implement this into our system, based on the in-built voice system of OSX; we ended up with a «n x computers» sequencer, «n» being the number of computers and being equal to one bar-line, musically talking.

I decided to focus on a simple black on white aesthetic, in order to create a flashing sequence similar to an audio sequencer on which a little light blinks when the playback head arrives.

On the web:
https://vimeo.com/150261145
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