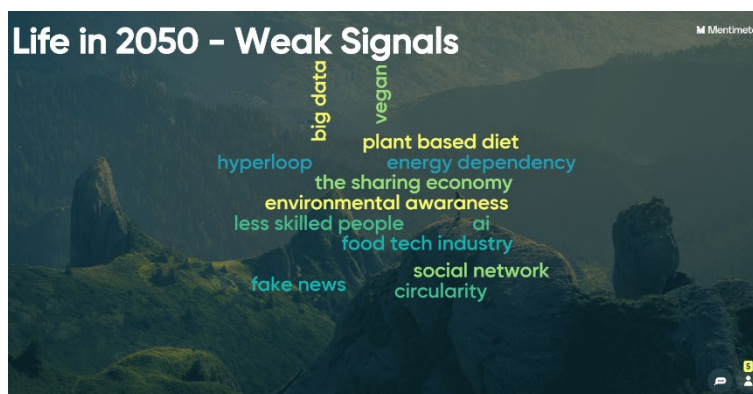


Moonshot Project – Sessions review

Session 1 – Launching

The session started with an **interactive activity about life in 2050** (30 years from now). The students had previously attended to Fab Lab's seminar Exploring Emergent Futures, so they already had reflected on that. For the next year, the activity can be more interesting for the students (first approach to huge problems from the future – this session will be probably happening before going to the Fab Lab), but they will also need more information in order to understand the exercise. For the activity, mentimeter was successfully used, and everyone was able to participate. The only problem is that if you want students to insert 5 words, they have to write them all together before sending the answers.



Following, a quick **introduction to Moonshot Thinking** was conducted. The content is enough, but the material can be improved for the following years. X's video was really interesting.

10' break.

After the break, a **Moonshot Thinking quiz** was performed on Kahoot. 5 interesting questions. For following years, try to add 5 more questions and rephrase some of them.

Then, the **introduction to the course** (in our case, pilot) was given by Andreas, explaining the methodologies that will be followed, ILOs, the assessment and giving an overview of the different sessions. In order to manage the project smoothly, a communication

platform such as Discord will be used. In our case, the channel wasn't created, so Marc created it and gave a quick explanation (for next years, the channel should be created and a quick explanation can be given at the end of the class while inviting everyone and making sure they join).

This session was online, using Zoom as a channel to deliver the class. Menti and Kahoot were also used and brought dynamism to the lesson, although Kahoot looks a bit childish.

Session 2 – Finding our Moonshot

This session had 2 parts, the first one, from 9h to 10:30h, was given by Marc Jené and Andreas Sumper, and the second one, from 10:30h to 12h, was given by the Fab Lab crew.

The first problem came in terms of schedule. Francesco and Angelica had to leave at 11h because they had to attend another subject at that time, also Valeria was participating in a challenge and couldn't stay for all the Fab Lab mentorship.

First, Marc gave a brief **introduction to the SDG**, after which a very interesting conversation started on the subject of **SDGs and Energy**.

This was followed by a 10' break and, after that, the students were invited to create the **Moonshot scenario**, from which the problem and solutions will arise. To create this scenario, the Fab Lab's **AoWS methodology** was followed, **including SDGs**. Having introduced the SDGs after explaining them and having the conversation about the SDGs and energy has led to the exploration of scenarios connected to Energy, Sustainability and Smart Cities, topics of interest in the context of the master's degree students are studying.

In the second part of the session, Santi, Víctor and Arman, have introduced the **“Spiral Development Canvas”**, a tool that aims to define Goals, Pilots, Technology and Elements related to the project in order to help with the definition of it. It is important for this canvas to be filled before the first prototyping session, in order to know what to prototype, how will be tested and what do we want to achieve. For this part of the session, only Tyrell participated, being really active and taking the project a step forward. However, before the Prototyping Workshop, this canvas has to be worked together by all the crew. For this reason, a session will be set up in order for them to work the canvas together.

Session 3 – Rocket Science

This session started asking feedback from the 2nd Fab Lab workshop. First of all, students had some difficulties with Arduino, however, they found really interesting the potential

that the webpage IFTTT adds to microelectronics. Working with small groups is helpful. Arman couldn't give enough explanations and he tried to do a lot of stuff in short time, it felt like running. They enjoyed the time spent working on their product.

After this, Marc gave a presentation about two main topics: Exponential technologies and Entrepreneurs' superpowers. The students listened carefully and at the end they answered some questions through Kahoot. The results were good (and better considering that this kind of tests are not part of the evaluation). The Porter's forces can be explained with more detail so they are easier to understand for the students.

This was followed by a 10' break and, after that, the students were invited to keep ideating around their problem. From this working session, which lasted 1 hour, we extract the following insights:

- Students find it hard to believe in breakthrough solutions.
- The Fab Lab tools, instead of making them see that everything can be prototyped, limit them to thinking of something that they believe can be build.
- They want to cover an entire process, from beginning to end, rather than focus on improving a significant part of this process.
- They find it difficult to think of scalable ideas, and they place too much importance on the process of prototyping. Not that it is not important, but the collaboration with the Fab Lab is a tool for the project, not the goal.
- For future editions, the focus should be on the magnitude of a Moonshot project at the beginning of the course, so that later the students go to the Fab Lab and see its potential as a tool to work on their project.

Session 4 – Ready to prototype?

The main objective of this session was to further define the solution. Between session 3 and 4, the students had a mentoring session with Victor. Thus, this class was used to introduce **two tools of the Agile methodology** very useful in the context of this project.

We started with the Standup Meeting (in this case seated and by video call). This brief meeting was useful for the students to explain what they did with Victor, the next steps they had to follow and to have the possibility to ask for help if they needed it (thus, answering the 3 questions of the Standup Meeting).

Then, as part of the work they had to do for the next mentoring, the Product/Project Backlog was presented. Through this tool, the students would define the characteristics they wanted to include in their product, classifying them in "Must do", "Should do" or "Could do". This tool, in turn, is related to a template they will use during the Sprint, which classifies the different tasks into "Done", "Doing", and "Next". The students had 1:15h of time to work on this activity. The results can be observed in the following image.

