

14/03/12. Started mailing.

We started to discuss the aim of the human practices team and its role in iGEM projects.

23/03/12. Skype meeting with Ana and Dorothy:

Brainstorming ethical issues. We came up with the idea of shooting a short film.

1. The movie is a 'medium' to do ethics. So, the first thing you would need to do is to decide which ethical issue(s) is important for you.
2. Then, you will have to decide what story is best to articulate that ethical issue(s)
3. When you make your script, you need to have clear in your mind what the 'use' of this movie will be: are you finally going to show it to the public to trigger ethical debate? or will you give it another use? The point is: movies are always made to address a certain audience and to cause a certain effect on those audiences, keep this in mind!
4. Finally, please take into consideration that this is a low-cost project: needs to be cheap and short. Cheap: like I say, the cheapest is that you use what you have that is yourselves and what you can produce. Images retrieved from visual archives are often expensive. Timing: In my mind the movie should last between 3-7 min.

From last meeting onwards:

- We discussed ethical issues related to our project.
- We studied those issues and gathered information about them. Scoping exercise: it consists in scoping and mapping a number of ethical and social issues that are relevant for our talking bacteria project.
- As a source of inspiration we watched several films from the Synthetic biology film festival
- Ana talked to Artefactando, who will give us a hand shooting the film.
- We are planning a meeting on 31st May (with Ana in person!) and shooting sessions on July.

26/04/12 Skype meeting with Ana.

Aim of the meeting: We will discuss which are the most relevant ethical issues that you envision in relation with your "talking bacteria project". We will also discuss the sources you can use to search and think of these issues. Finally, we will discuss how to translate those issues into a movie script.

Ethical issues discussed:

List of relevant issue in relation to talking bacteria project:

1. General issues/Bioethics:
 - a. biosafety (i.e. safety as related to lab practices)
 - b. biosecurity (unintended consequences of biological research, i.e. bioterrorism, etc...)
2. Developing affective relations with your bacteria (ending up in addiction, physiological disorders, falling in love, etc..)
3. Colonization: bacteria becoming superior than us and taking over humanity
4. Autonomy: bacteria becoming autonomous/humans losing autonomy
5. Control: Humans losing control/Humans creating disorder in nature, how to recover balance in nature)
6. Issues related to nature/directed selection (again, autonomy/control)
7. Cyborgs/Robots ethics: humans losing their identities: what is to be human? How are cyborgs different from humans?
8. Bacteria controlling human bodies and trying to imitate humans
9. What is artificial/what is natural
10. Bacteria can choose a human body (good looking, healthy, etc...): freedom of choice?
11. Bacteria becoming superior than humans
12. As bacteria become superior, issues of social segregation emerge (racism)
13. Bacteria living in human bodies (cyborg) become better than humans
14. Technologies will enable human-beings to transcend the limits of humanity: transhumanist ethics/Singularity)
15. Non-desired effect of scientific research: bacteria become conscious and autonomous beings.
16. Non-desired effects are related to uncertainty and the fact that scientists just do their work in an automated way and they do not stop to think
17. Uncertainty/non-desired effects: There are things that we do not know and things that we do not know that we do not know (known unknowns/unknowns unknowns)
18. Intelligent bacteria conquer the world subduing humans. They apply eugenic practices to bacteria population (selection of the best) and reverse eugenics to human population (selecting the most stupid). The goal is to have total control over humans.

19. This has happened because scientists cannot have an opinion: they only work in the labs, but they do not get enough freedom of expression.
20. They also need more time to think about the possible implications of their projects.
21. Issues related to responsibility. Who should take responsibility for a bacteria that has been designed to produce drugs?
22. Liar bacteria: someone designs a bacteria that can lie
23. Issues related to monopolies and economic benefit: who will benefit from developing a talking bacteria?
24. Double use: talking bacteria is developed to do something good (i.e. cure cancer) but afterwards it is used to do something bad (to lie).

17/05/12 Skype meeting with Ana.

We chose (3 or 4) relevant issues:

- Lose control
- Develop relations with talking cultures
- Economical interests

We described different ideas for the movie and the best way to transmit those ethical issues.

During the following days we will write a document containing:

- Ethical issues
- Small research on them
- Briefing of the movie

We also develop a short storyboard.

23/05/12 Sent document to Artefactando.

We await for their opinion and advice.

27/05/12 Artefactando replied.

After our first attempt, we were told what aspects could be improved or are difficult to produce.

- We should focus in less ethical aspects (probaly one or two) because the length of the movie limits our possibilities.
- We should try to make a more realistic film if we want people to connect with the situation.
- We shouldn't include so many locations, characters, special effects and resources in general because of our budget and time limitations.
- We should avoid wtiting dialogues

In the forthcoming meeting with Ana in Valencia we will restructure the project to make it feasible.

?/05/12 Ana met with Artefactando in Barcelona.

They discussed the project and details to deal with.

31/05/12 Meeting with Ana and Manel in Valencia.

We discussed which ethical and social issues we would try to talk about in our film and chose the following:

- Losing control
- Lying microorganisms
- Opensource resources

We also developed a proposal for a movie in which we tried to improve the aspects commented by Artefactando.

A document containing the new version of the project was sent to Artefactando.

01/06/12 Artefactando gave us their opinion on the new version.

We were told that the new idea is good, clear and factible. They are now working on the script and together with them, we analyze details about the argument. Looking forward to reading that script!

12/06/12 The actor Alfred Picó will help us playing one of the characters.

28/06/12 Artefactando sent us the first draft of the scrip!

Great news! Today Rafa and Bar from Artefactando sent us the first draft of the script. The whole team will meet to analyze it together. The first impressions are really good.

29/06/12 Two iGEM meetings in the morning.

We met in the morning (a little sleepy, but excited) to read the script together. We are glad to see that it follows our idea and that Artefactando did an awesome job solving a couple of issues and adding some interesting details. We will send them our opinion and impressions.

We have chosen one of our teammates from another subgroup to play one of the main characters. We think the character fits her so well! Let's see if she agrees...

iGEM VLC_Biocampus general meeting: The whole team, from all subgroups, has met today to share their work.

The team is doing a great job!

02/06/12 Tamara agreed to play "biohacker"!

We are still working on the script! Improving the scientific descriptions and trying to solve details.

16/06/12

Almost everything is ready for next weekend Human Practices filming! This week we are decorating the stages.

21-22/07/12

The short has been shot! This weekend HP team have been filming the bioethics short which will be debated once the editing is done.