Course Reflection 384
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What is your specific contribution to the teamwork on presentation?
I created a shared folder to share our favorite articles and the presentation slides. I selected the report of Elon Musk's new BMI report and summarized the gist. but in the end we decided to concentrate on the topic of focusing light in biological tissue. I also helped the presentation slides.

How did your field of study and/or research experience help contribute to the presentation?
I am a materials science students, so I learnt how the photons and electrons travels, which helps the summary of principles. Also, I have group work experience before so I suggested the strategy of cooperation I used before to lead a higher efficiency.

How did the presentation and course materials help you acquire the knowledge outside of your field/your scope of knowledge?
It's the first time I have learnt something about neuroscience. What I learnt before are more focusing on organizations of atoms and molecules. This course covers a comprehensive and fantastic overview about the recent developments in the field. If I were doing research in this field, the questions and discussions were very inspiring for new research ideas. For me, this course broaden my knowledge in both the cutting edge tech and basic concepts of neuroscience.

How do you want to apply the technologies discussed in this course to solve real world problems in any field?
In the lectures, we have discussed that neuroengineering develops new tools like BMI to treat neurological diseases. I hope this technology could be further developed to help thousands of people with neurological disorders. The current problem is that modest channel counts limited their potential, and how to increase bandwidth and build a feasible system is also tough. I have read the report about a new BMI device built by Elon Musk. It's still under experiment and faced with difficulties such as a wound caused by the invasion electrodes. I hope one day we can use this kind of technology to use our brain to control everything.

Which part of the course material do you wish to learn more about?
We have learnt about how to design electrodes with certain design functions. Electrodes for recording signal have been developed to bigger bandwidth, less noise and higher brain tissue compatibility. I wish to learn more about the vivo neural recording for BMI devices. If possible, I wish to learn an extracellular signal recording project that are currently being used and implement it by ourselves.

Any other general comment and feedback on the course is welcome!
This course covers lots of content and gives basic concepts and ideas of how can materials be used in neuroscience. The assignments are very useful to help us further understand the lecture materials in a quantitative aspect. One suggestion is that although the extra reading materials are awesome, I think it would be better if they are formed in organized notes. Because not all students are doing research in this field, and some of us are lack of prior knowledge about neuroscience.