
Information Form for Participation in the iGEM TIES study

Centre of Research and Interdisciplinarity

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Study Title: iGEM TIES

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You are being asked to participate in a research study. This form will give you the information you will need to understand why this study is being done and why you are being invited to participate. It will also describe what you will need to do to participate and any known risks, inconveniences or discomforts that you may have while participating. We encourage you to take some time to think this over and ask questions now and at any other time.

PURPOSE

In this project, we aim to study the making and the learning of Science *in situ* by using the iGEM scientific competition as a model. iGEM presents a unique opportunity to bring together groups of scientific thinkers in a competitive, collaborative, and scientifically rich way. The participating teams share their project and their lab book in open wiki websites. The study of these wikis has allowed to pinpoint the role of student interactions in the success of teams. Yet, the dynamic nature of these interactions in the lab has remained elusive. How do students collaborate? How are subgroups formed? What is the frequency of interactions with mentors/Pis? How do these interactions lead to better learning (skill spreading), productivity (BioBricks/project size), creativity (project uniqueness) and success in the competition (medals and prizes)? Such interactions will be mapped using a smartphone application, as well as a web interface for questionnaires as detailed further below, allowing to map several layers of complexity of the teamwork and study the group problem-solving process itself.

Surveys will be used to better understand the link between team features and team interactions, and understand learning processes such as skill spreading across the team during the course of the project. The data collected in this study provides an opportunity to ask questions about group dynamics, collaboration networks, and the development of scientific insight.

WHERE WILL THE STUDY TAKE PLACE AND HOW LONG WILL IT LAST?

The research will be conducted in a distributed manner through smartphone and web-based applications. The study will take place during the 2019 iGEM competition ending on November 4th.

WHAT WILL I BE ASKED TO DO?

You will be asked to install a smartphone application and answer questionnaires during the project development time.

Below you can find the list of information that will be collected as part of the research project. Note that any personal identification will be anonymized. Participation in any of those data collection is purely voluntary and provides consent.

- Questionnaires (personality, demographics, team interactions)
- Communication meta-data (timestamp and usernames from the appropriate channel of communication used in the team: e-mail, Slack, Whatsapp...)
- Team interaction measurement through Bluetooth using an app on your smartphone device

DATA DE-IDENTIFICATION PROCESS AND PRIVACY PROTECTION

The data collected from you will be maintained under a confidential subject number and no identifying information will be preserved beyond the period of the experiment. Identity will be protected by reviewing variables prior to distribution to ensure that no personally identifying information or variables are included. The data generated by the study device cannot be used to identify participants.

The anonymised data might be shared with project collaborators at the CRI and as part of the iGEMeta initiative (<http://2017.igem.org/Resources/iGEMeta>), in accordance with Institutional Review committees and Inserm Ethics Review Committee (CEEI-IRB).

WHAT IF I HAVE QUESTIONS?

Take as long as you like before you make a decision. We will be happy to answer any question you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact the principal investigator Marc Santolini, PhD, by phone +33 6 32 37 72 97, or by email, marc.santolini@cri-paris.org.

CAN I STOP BEING IN THE STUDY?

You do not have to participate in this study if you do not want to. If you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or negative consequences of any kind if you decide that you do not want to participate. If you decide you do not want to participate in the study even after you have started to participate, simply let one of the researchers know; you will be dropped out of the study, all information you provided will be deleted, and you will suffer no negative consequences.

Participation provides consent. This project has received a favorable opinion from INSERM Ethical Evaluation Committee (IRB00003888) on 22 May 2019.