## **COLUMN: GRADUATE MEMBER MUSINGS**





## Reflection of Forming a Research Collaboration with an International University

Nicole Wang 1

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I received a grant from January 2017 to June 2018 through our university, the Pennsylvania State University (Penn State), to develop a web application that can potentially address the problem of low retention rate in online learning. Throughout this journey, I recruited a team of volunteers who are faculty members, staff, a graduate student from the University of Southampton in U.K. and professional developers to transform the idea into reality. The application we have developed is called the Social Performance Optimization Tool (SPOT). It is a web-based interactive environment in which students are able to view their course performance through different states of an avatar (Wang et al. 2017). Currently, SPOT is functional and has been piloted at multiple courses within Penn State over the past two years. In addition, SPOT has been piloted at different universities within the United States as well as Tohoku University in Japan.

Forming a research collaboration beyond the United States can be exciting yet challenging. The excitement can be the curiosity of conducting research at a different research setting, interactions with participants who are from different cultures, and discussions with the international colleagues who can present you perspectives you have never thought of.

Aside from the excitement, there are also challenges that need to be addressed, such as concerns with intellectual property (IP). Intellectual property is defined as "refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce (WIPO 2019)". This implies the development of a technology or the design of research is considered as intellectual property. As a graduate assistant who is employed by the university, all of my inventions belong to the university regardless of receiving a grant or not. Before forming the international collaboration, I needed to talk to the office of technology management

for an invention disclosure since the web application we developed is the first one on the market. One might argue, why does/would the university need to decide whether we can release the application or not, since this is just a research project? It is a research project, however, the invention itself is also related to IP and thus need to be discussed. As we are now living in a world that is flat, World Trade Organization (WTO) has treaty on IP policies across nations that most countries are in compliance with (WTO 2019).

In addition, we had to deal with challenges related to legal affairs. If the research project does not have a technological invention involved, this step can be ignored. Otherwise, there should be legal documents put in place to protect the IP. For instance, Dr. Mina Mizumatsu, the assistant professor who is using the application for her course, needed to sign a non-discourse agreement (NDA). For students who are using the application, they need to be in compliance with the Privacy Policy and Terms of Use. I was very fortunate to have all the legal documents drafted by Penn State Launchbox, an entity that helps with startup related affairs (SPOT is not a startup company, but all the NDAs and terms and conditions are common practices for startups).

There were also concerns with Institutional Review Board (IRB) within our institution. Each institution has very specific IRB policies regarding international collaborations; I will only share my experiences with the IRB at my university. The research project is an exempt study, and therefore, the IRB does not need to review any addendum when adding new research sites. However, I needed to compile all the paperwork in case of an audit. Tohoku University is a Japanese university, and therefore all the consent forms and surveys need to be translated into Japanese. After translation, a Japanese friend helped us to validate the translation as an IRB requirement. One thing related to translation that is worthy of mentioning is about cultural context. Some of the cultural norms, although are very popular in the United States, do not exist in Japan. When we came across issues like this, we resolved it by intensive communications. I would provide abundant examples to elaborate on the concept



Nicole Wang nwang@psu.edu

The Pennsylvania State University, State College, PA, USA

244 TechTrends (2019) 63:243–244

to make sure Dr. Mizumatsu would understand so she would find appropriate terminologies in Japanese to translate back to students. IRB within the collaborator's institution is another matter that needs to be considered. Some countries do not require that researchers go through the IRB process, while others do. While most institutions in Japan do not require an IRB, Tohoku University does. Dr. Mizumatsu and I spent a lot of time designing the study to be aligned with both of our research interests before she put everything on paper. A mutually beneficial research interest, as a starting point, would cultivate a long-term healthy collaboration.

Reflected on my international collaboration experience, I think communication is really the key to everything. This involves communication within my institution to ensure we are in accomplice with all the necessary policies and procedures, and communication with the external institution and collaborator to make sure we are in sync with every single step. The experience itself to me was extremely valuable; it not only helps me to conduct the research in another country but also pushes me to

learn about how the other institutions across the globe conduct research and how the sectors within their institutions work.

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