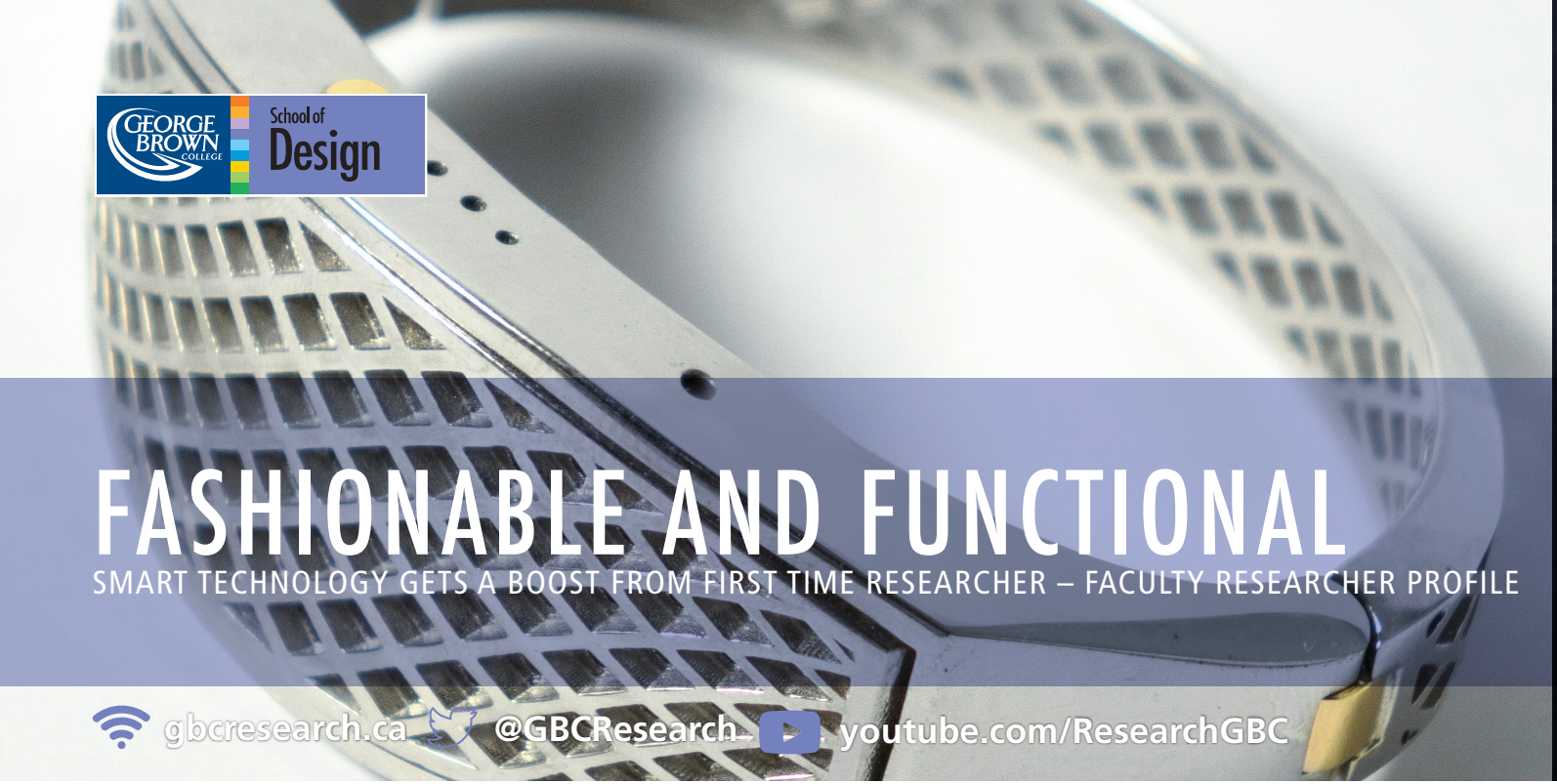

FASHIONABLE AND FUNCTIONAL

SMART TECHNOLOGY GETS A BOOST FROM FIRST TIME RESEARCHER – FACULTY RESEARCHER PROFILE

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PROTOTYPE DEVELOPMENT

PROJECT ESSENTIALS

Principal Investigator:
Lisanne Skeoch

Years Active: 2017

School: Design

Support from:
NSERC

Industry Partners:
RoweBots Research Inc.

Lisanne Skeoch has a vision for jewellery and wearables in our future that is both functional and fashionable. She went outside her comfort zone as a first time researcher at George Brown College and created something with her team that is new, innovative, fun and useful. Her premier research assignment at George Brown was working with RoweBots, testing and developing modular technology for smart jewellery.

But what is modular technology and how could it be combined with jewellery in the first place? Lisanne said "this project was a fascinating challenge for the college and research team. Our focus was designing and fabricating two smart bracelet prototypes that could be produced in silver or gold. While the intention was to keep fine jewellery in mind, housing the required technology components could lead to a very large bracelet. If this were produced in precious metal, the large size and weight might be cost prohibitive and unappealing to RoweBots' intended customer. RoweBots focus was on three important features; few other companies offer wearable technology with precious metals, fine jewellery is more appealing than costume jewellery to the intended consumer, and the prototype had to be designed in a way that would allow jewellers to customize an actual bracelet or a digital file in their own workshops."

Before embarking on the challenge from RoweBots, Lisanne was unsure of her first steps for the project. She approached faculty members that had been involved in applied research and met with the project manager from the research office along with the industry partner representatives from RoweBots. Questions were asked, answers given and the entire team came up with a plan. "This put all of our minds at ease and we created a strategy for attacking the project." Lisanne's interest was piqued—she had never participated in a research project before and treated the entire experience as a chance to learn. Her knowledge in creating fine jewellery combined with a rudimentary, but quickly expanding, understanding of wearables in smart technology provided her a huge opportunity.

> **"This project was a fascinating challenge for the college and research team. [...] The prototype had to be designed [to] allow jewellers to customize an actual bracelet or a digital file."**
> LISANNE SKEOCH, FACULTY RESEARCHER

The research team took the approach of designing the prototypes for two specific consumer profiles. They would focus on the "Mother" and "Daughter," representing women over the age of 65, and women between 45 and 65 years of age. Offering novel technological features, these bracelets could be digitally linked to one another, allowing for communication, and health and safety information to be passed between each device. The bracelet would also have other features, not requiring them to be linked. Allowing for phone call or message alerts, reminders, call answering and ending, activity tracking, fall detection and interoperability with other applications, this bracelet would be a full featured accessory. Use of a smartphone application would allow for control of all of these features.

Lisanne believes the students involved in the project were a huge asset. "I was happy with the three students we had on the project, and their dedication to its outcome. Each student had slightly different strengths and skill sets. Taking this into account along with their attitudes and rapport with each other was very important. Faculty working in research should ensure they make time to be involved in the interviewing and hiring process for their projects. The student team that I worked with was stellar and essential to the project's success."

Lisanne has a great deal of experience in the design, creation and sale of fine jewellery and now she has a competitive understanding of an exciting new specialty. This research project was a challenge for herself and her students, providing a great space for learning about the growing wearables industry.