

# **Chapter 1: Introduction.**

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Ideally, doing an observation for social experiment should not require the social scientist to set up an artificial environment, unless it is meant to. The problem with traditional method of social data gathering is that the technologies, used to leverage the process, make the observation less natural. Moreover, the process is not scalable for multiple instances of data gathering. Specifically for naturalistic kind of observation, the most ideal practice is to keep the environment as it is as well as having an ubiquitous data gathering tools. However, this situation is contrary to the distance between the observation object and the social scientist and the data gathering tools. There are two sensible solutions for this problem, the first one is for both or either the social scientist and the tools to be blended into the environment naturally. Or, to have both or either them to be outside of the observation environment. With, nowadays, everything can be connected to the Internet, it is simple to build tools to observe social interaction from any part on the world. Now the problem lies on how to make the tools fused together into the environment. For making such a ubiquitous technology, I set my spotlight on developing a wearable social sensor, of which the main goal of this project.

There are two main inspirations for this project. The first one is Sociometric Badge and the other one is Rhythm Badge. Historically, Sociometric Badge is the latest attempt to create an augmented name tag that is used in busy teamwork oriented place like in an office space. The Sociometric Badge looks back into 1992's Active Badge from Olivetti Research as its inspiration. After through DIY - approach iterations, the Sociometric Badge now is trying to set off as the first commercialized wearable device to enhance how people interact to each other.

Since the original Sociometric Badge went commercial, there are little to no documentation available for the Sociometric Badge. This suggests the main motivation for Rhythm Open Badge. Rhythm Open Badge is an open solution to Sociometric Badge. There are codes, schematics, and documentation available. However, looking at Rhythm Open Badge project repository the methods and tools used to produce a Rhythm Open Badge are not common. Rhythm Badge uses NRF51-DK development kit. And based on Google Trends this development kit sits in 0 : ~65 interest over time per day since 2014 . This development kit interest point is compared to more well – used development kit, Arduino. I initially feel that I am the only one that do not know anything about the development kit mentioned. But with low interest point from Google Trends, the components and the tools those are used to make Rhythm Badge are indeed unpopular choices.

The study of social sciences live in different spectrum to knowledges necessary to make Rhythm Open Badge. Hence, in case social scientists want to leverage their social observation with such tool like Rhythm Open Badge, they need to find another person that has experiences with the components and the tools those are used to make Rhythm Badge. Considering the low search queries on tools those are used to create Rhythm Open Badge from Google Trends, finding such person would be an uneasy task.

This project is set to please both makers and those who wants to do social observation in closed group. The scenario is that for both makers and the social scientist to work together to make a tool similar to Sociometric Badge. With regard to the Rhythm Open Badge, the components and tools

chosen for this project need to be as accessible as possible to the makers in term of how easy they are to find and to be studied. This project aims to kick start the development by setting an example of an alternative Sociometric Badge for both makers and social scientist that can easily be tweaked based on their needs.