

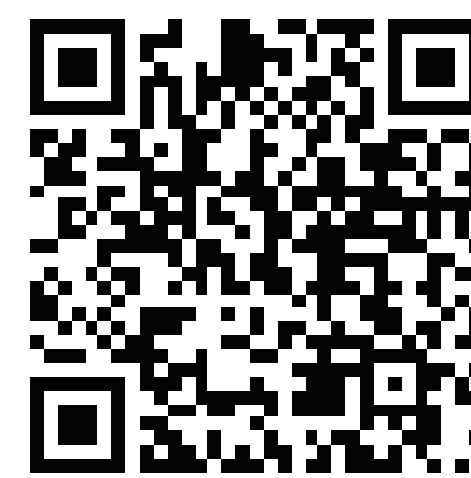
# Recipes for Breaking Data Free: Alternative Interactions for Experiencing Personal Data

**Jordan Wirfs-Brock**  
University of Colorado, Boulder

wirfsbro@colorado.edu  
Twitter: @jordanwb  
Website: jordanwb.com



Read the paper:



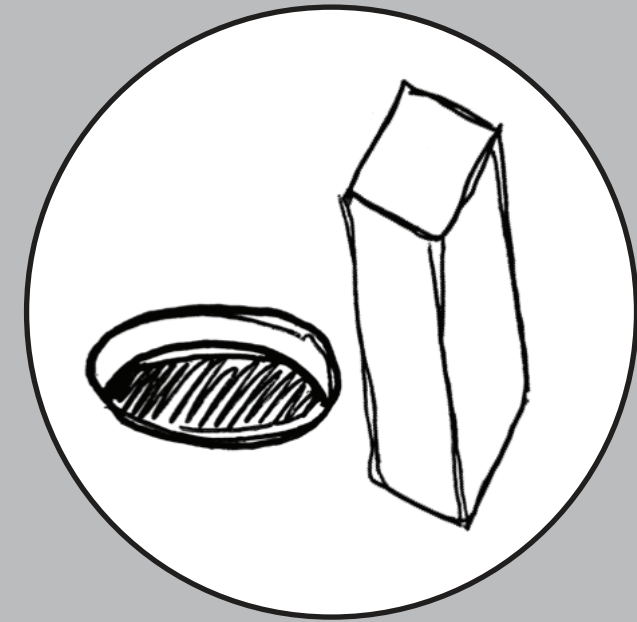
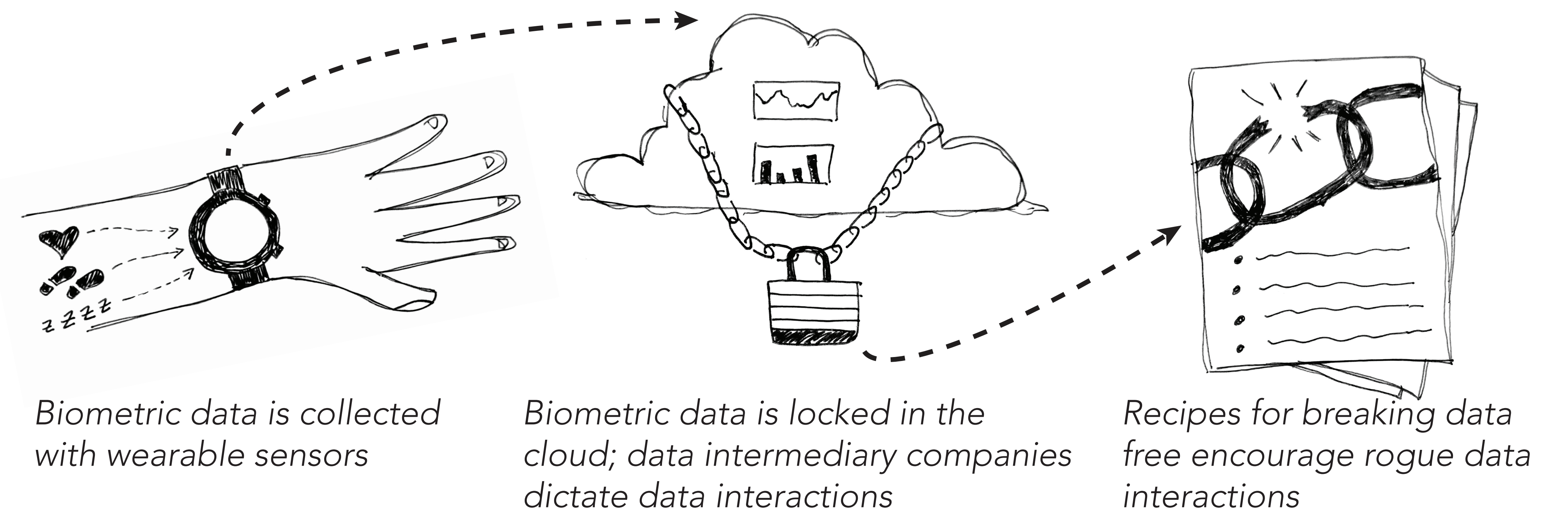
<http://bit.ly/data-recipes>

## Do you ever feel like your personal data doesn't belong to you?

How do the specific, predefined ways data brokers like Garmin or Fitbit render personal biometric data for us hinder — or enhance — our ability to find meaning in our data? Using a Garmin Forerunner 235 wrist-based activity tracker as a test platform, I present four **recipes** for novel data interactions and **performances** of those recipes as alternative modes for experiencing data through acts of making and lo-fi **data sonification**. These recipes foster a relationship with personal data that is more meaningful and, well, personal.

## What is a recipe?

The recipe metaphor is inspired by pattern languages in software design and "scores" performed by Fluxus artists like Yoko Ono. In this project, recipes are sets of instructions that people can follow to create personalized data interactions. Because recipes are reusable and remixable, they support many levels of expertise and points of view. People can follow them explicitly or adapt and extend them to fit their needs. A scaffold for interaction, recipes emphasize the act of making as a tool for creating meaning.



### Recipe 1: Reformatting Your Data

*Time needed: 30 min - 4 hours*  
*Ingredients: Garmin device; Garmin Connect account; grit*

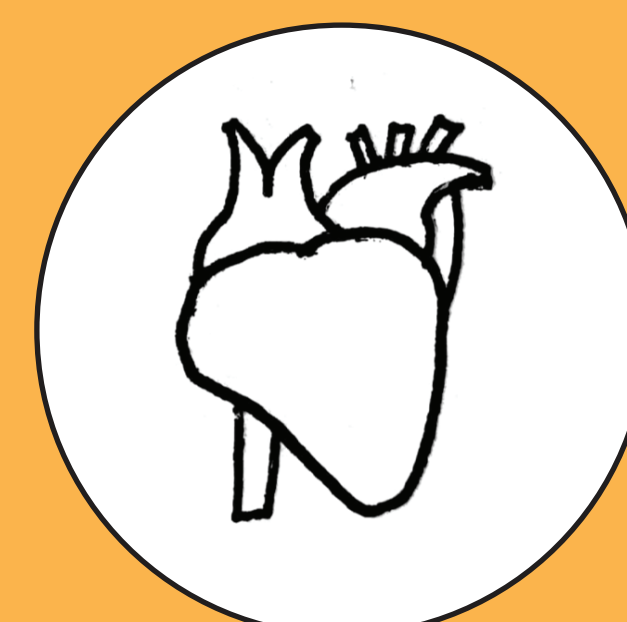
**Summary:** To extract data from the Garmin dashboard, you must download it and convert it from a proprietary file format (.fit) into a standard format (.csv).

Search for solutions on Stack Overflow. Pursue several dead ends.

Eventually determine that this requires a Java command line tool.

Manage stress as necessary.

**Provocation:** When we outsource the hidden labor of data management, analysis and visualization to companies like Garmin, what are we giving up in return?



### Recipe 2: Voicing a Heartbeat

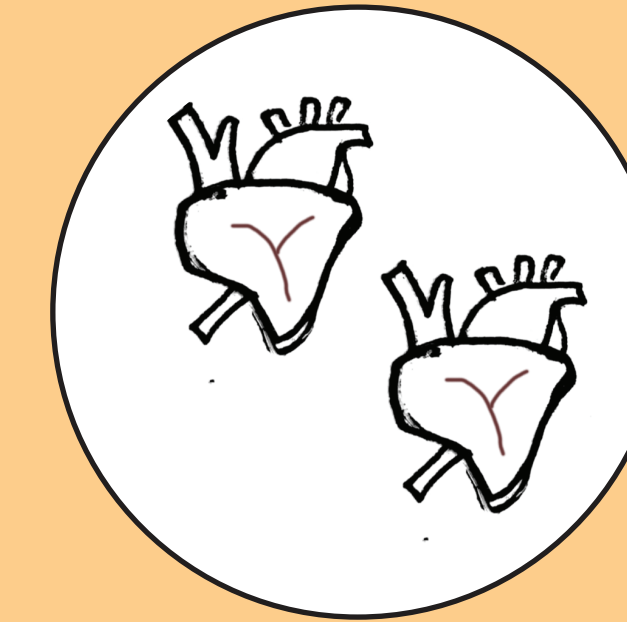
*Time needed: 45 min*  
*Ingredients: Garmin device; Garmin Connect account; metronome*

**Summary:** Map 24-hours of heart rate data onto a 1-minute time interval by estimating the average heart rate for each 2-hour period (which will be performed for 5 seconds).

Record each heart rate interval by listening to a metronome and matching the tempo by making a "ba-dump" sound with your voice.

For added emphasis, simultaneously tap the microphone.

**Provocation:** How can performative acts call attention to biologic processes that are typically unnoticed and invisible?



### Recipe 3: Sharing Data with Others (A Data Duet)

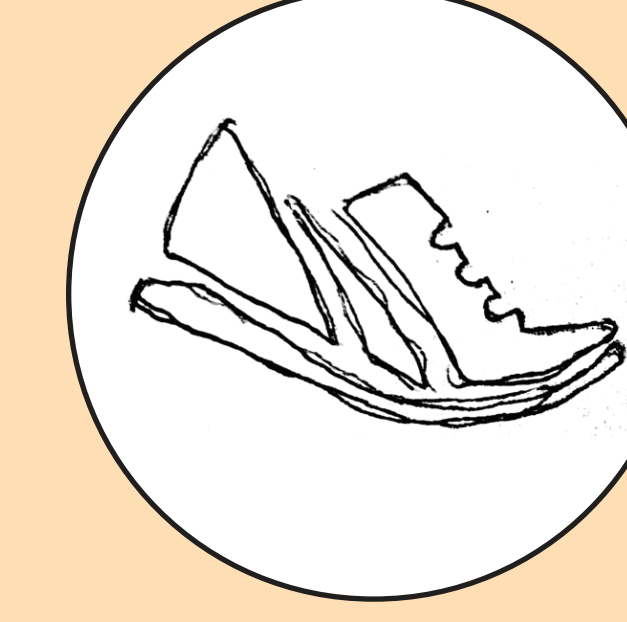
*Time needed: 10 min - 3 hours*  
*Ingredients: Friend or family member with a fitness tracker*

**Summary:** Contact a friend or family member to ask for their heart rate data.

When attempting to share data, the results may be completely different from what you anticipated. You may find that it was easier to perform the data than to share it in its raw form.

Go back and forth, revising your goals and expectations, participating in a data dialog, as long as needed.

**Provocation:** How can co-experiencing personal data through collaborative performance expose the nuances of our individuality?



### Recipe 4: Quarter-Stepping Through Data

*Time needed: 2+ hours*  
*Ingredients: Garmin device; Garmin Connect account; quarters or other coins*

**Summary:** Create a sonic composition representing a single day of step-count data using objects at hand: i.e. coins.

Using a conversion rate of 1 step = 1 cent, record the sounds of stacks of quarters falling on a table. For example, if you walked 253 steps from 6:00 to 6:15 am, drop two 4-quarter stacks and one 2-quarter stack.

Edit together quarter drop sounds (layered but slightly staggered).

**Provocation:** Through data performance, can we uncover reflections that are inaccessible when we consume data representations that are created for us?

