

## Join the EVOTION Hackathon and explore how “Big data” can be transformed into evidence for public health policy-making

Keywords: real-world sound environments; evidence-based public health policy-making; statistical modeling of longitudinal data; data visualization; hearing-impaired hearing aid users’ behavior; personalized hearing loss care

**Introduction** Today, vast amounts of multivariate real-time, real-world data are being collected from wearables (such as smart-watches) and smartphones, which all relate to the general state and/or behavior of the users. For example, Google knows where you are (Google maps) and Apple knows how well you are doing (Apple HealthKit). The hearing aid manufacturing industry have also started to collect real-time data from their hearing aids, for example, data describing the sound environments - data that eventually can guide the R&D to improve and personalize hearing aid technologies.

In the EVOTION project, we try to process such real-time, real-world data with the purpose of generating *evidence* that can support public health policies – that is, we translate low-level data observations (e.g. timestamps and momentary measures of the environment) to higher-level decision-relevant information. This is a very novel and non-trivial task, and it is also the topic of this Hackathon.

### Topic **Outcome measures from longitudinal real-world data**

From the supplied data:

1. How do we **model** longitudinal multivariate data to get behavioral insights that can be used as evidence for public health policy-making?
2. How do we best **visualize** data and modeling results to convey findings to people with no prior data science experience?
3. How do we **compare data** and results to existing knowledge or other public available datasets?

At the end of the Hackathon, team-based presentations target either all or some of the areas above. We welcome broad interpretations of the topic – that is, there are no rights or wrongs. The goal is to have fun and learn from each other!

**Venue** Eriksholm Research Centre, Rørtangvej 20, 3070 Snekkersten, Denmark.

**Practical information** A limited number of tents might be available on the premises (depending on the weather conditions) along with showers (yes, a “camping” Hackathon!). However, participants must bring sleeping bags and (inflatable) mattresses + gear (i.e. laptops). We have free WIFI and will arrange food. The event is free to attend, however, other costs associated with participation (travel, accommodation outside of the venue etc.) will not be covered.

**How to sign up** Send an e-mail to [lych@eriksholm.com](mailto:lych@eriksholm.com) before the **7<sup>th</sup> of August 2019** that briefly states your motivation for joining the Hackathon and please include details of your educational background and current position. The Hackathon will be team-based. You are very welcome to form teams in advance and inform us in the e-mail. The organizers will team-up the participants that do not sign up with a team. After sign-up, more practical information and a program will be sent together with a confirmation.

- Organizers**
- Jeppe Høy Christensen, Eriksholm Research Centre, Oticon A/S, Denmark
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