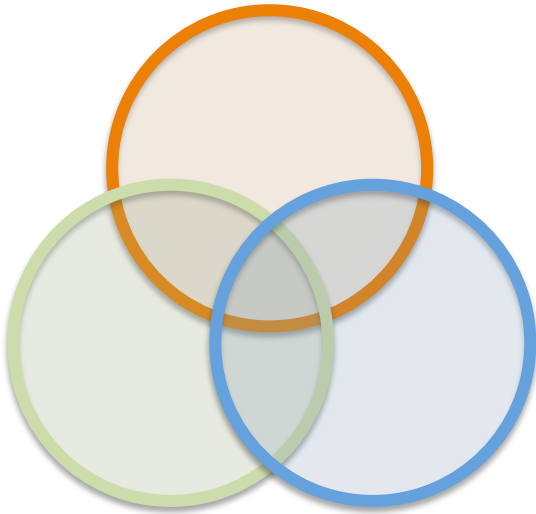# Machine Learning
for the Quantified Self

Chapter 10

Discussion

Challenges (1)

- Learning full circle
  - Learning quickly
  - Learning safely
  - Using future predictions
- Heterogeneity
  - Learn across devices
  - Learn across people
  - Coordinate behavior

Challenges (2)

- Effective data collection and reuse
  - Collection of data (active learning)
  - Transfer between use cases (transfer learning)
- Data processing and storage
  - Storing data (where, what)
  - Processing data (when, where)
  - Battery management

Challenges (3)

- Better predictive modeling and clustering
  - Better features with less effort
  - Domain knowledge
  - Temporal learning
  - Explainability of models
- Validation
  - Perform validation (!)
  - Definition of success
  - Setup of validation study (slow approval process)

Summary

- We have studied various reinforcement learning algorithms
- We have seen the challenges in the domain
- We have discussed the final assignment