

Pitch

Smartwatches collect a wealth of sensor data over time, offering valuable insights for patients managing chronic conditions.

However, **traditional interfaces often fail to provide actionable insights** from this data.



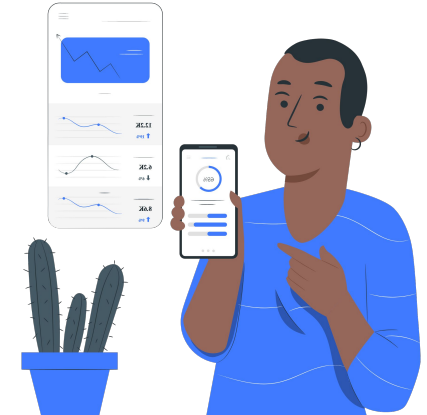
Research shows that **guided self-reflection improves condition management**

Our project proposes a **reflection-focused mobile interface** to help patients harness wearable data, promoting deeper understanding and better control of their wellbeing

Align: Bridging User Insights to Self Management

Inspiration

- Previous work demonstrated the power of **self-reflection** in enhancing data-driven decision-making.
- **What we learned:**
 - Reflection tools uncover connections between **subjective experiences and objective metrics**
 - Integration of wearables data with personal insights empowers users
- **Opportunity:** design for patients managing diabetes, to improve:
 - **Self-awareness**
 - **Engagement in health management**
 - **Understanding of mental and physical health interdependencies**



Coming up: Focus Groups

FG1: Clinical & Computational Perspectives

- **Topic:** Subjective experiences & objective metrics to promote reflection
- **Attendees:** Endocrinologists, bariatric surgeons, diabetes educators, experts on human-model collaboration, other interested community members

FG2: Patient Perspectives

- **Attendees:** Patients

FG3: Alignment

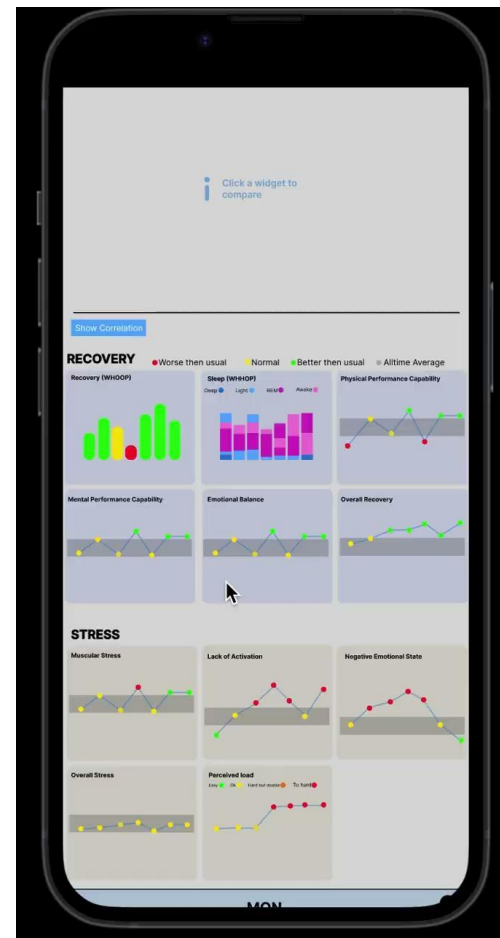
- **Attendees:** Patients + bariatric surgeons, experts on human-model collaboration, interested community members

DSI Health Align: Interest in Focus
Group (Clinical & Computational
Perspectives)



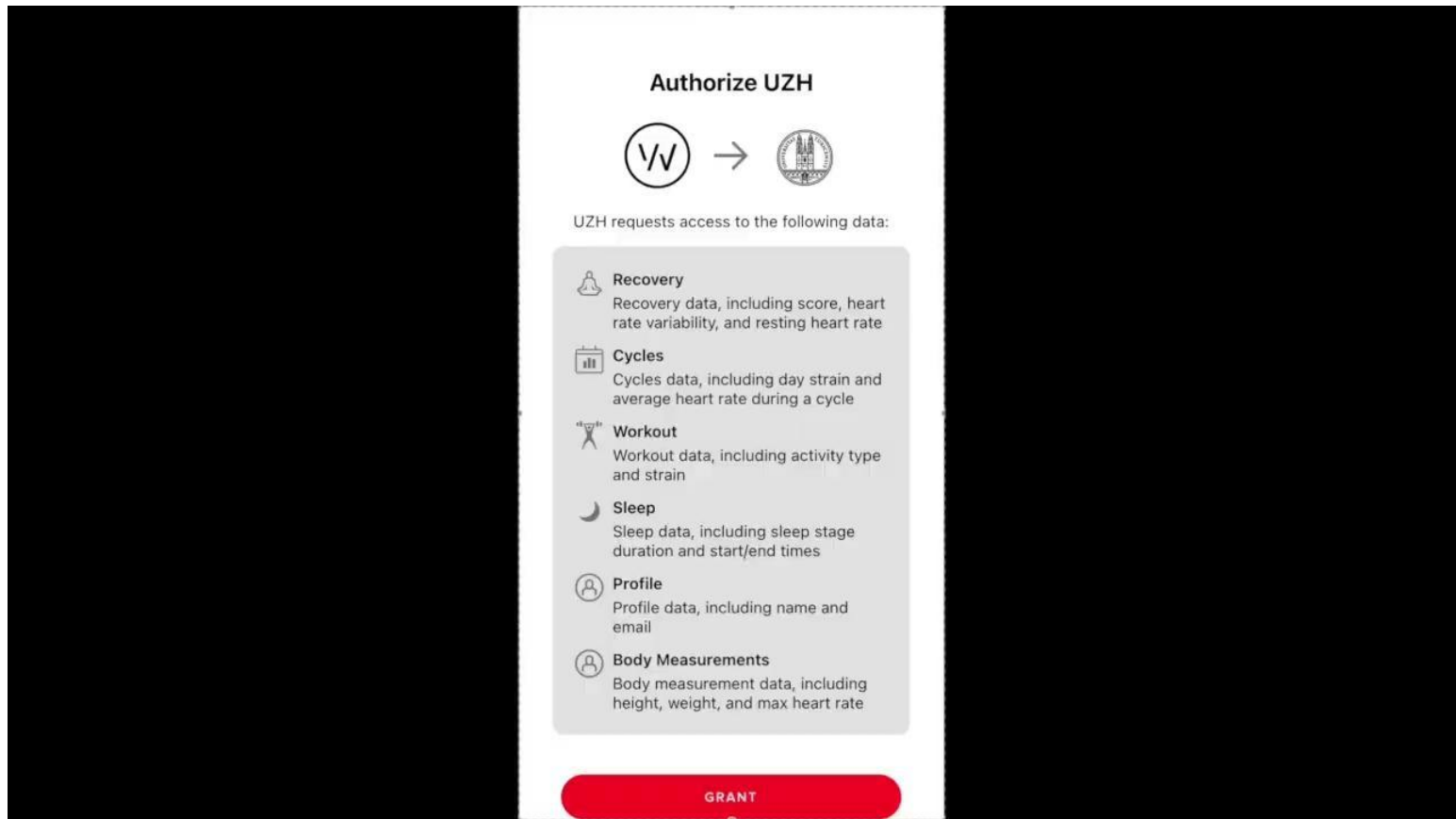
Inspiration: Athletic Training

- **Concept:** Combining physiological sensor data with athletes' personal reflections.
- **Outcome:** Athletes gained nuanced insights into their emotional state, sleep quality, and physical stress, improving recovery and performance.
- Tested by rowers, who reported:
 - **Increased control over recovery**
 - **Confidence in optimizing performance**
 - **Discovery of patterns linking mental and physical health**



RecRef: A Reflection-Promoting Tool for Athletes
(Paul Ferdinand Safari and Rowing Club Erlenbach)

Update video (Nov 21)



MOTIVATION



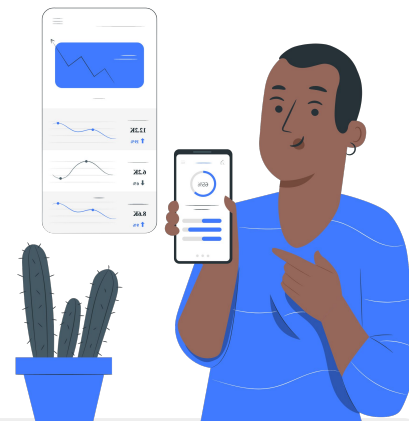
Many researchers at the DSI work with **health data that is increasingly collected by patients themselves**



However, **patients struggle with gaining actionable insights** from complex data and visualizations



VISION

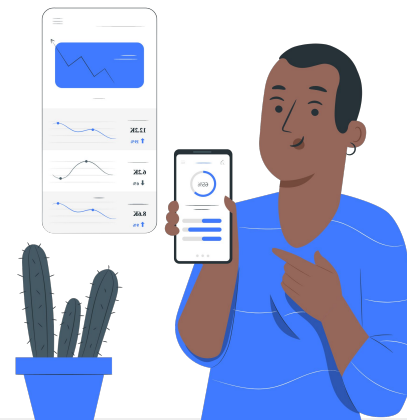


Reflection supports self-insight, motivates behavior change, and is desirable for interactive systems.

Allowing a **patient-facing, reflection-promoting tool** that is optimized for a **balance between low-effort insight generation, and rich data capture** is instrumental for informed, productive self-management.



GOAL

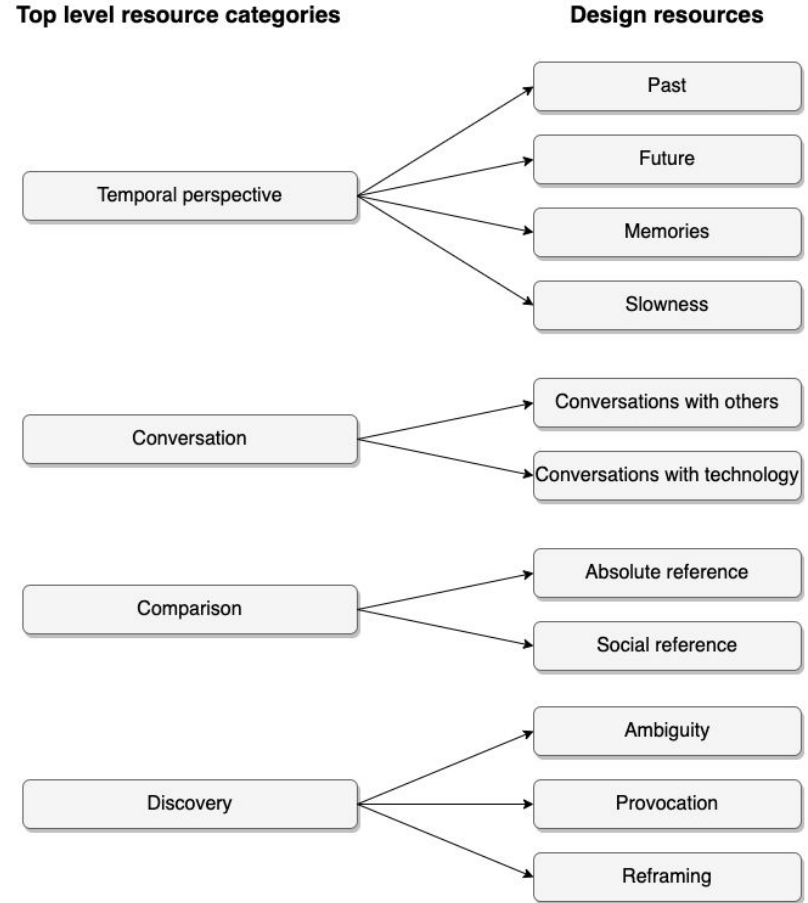


Based on design guidelines for promoting reflection, **build a personal informatics tool** that:

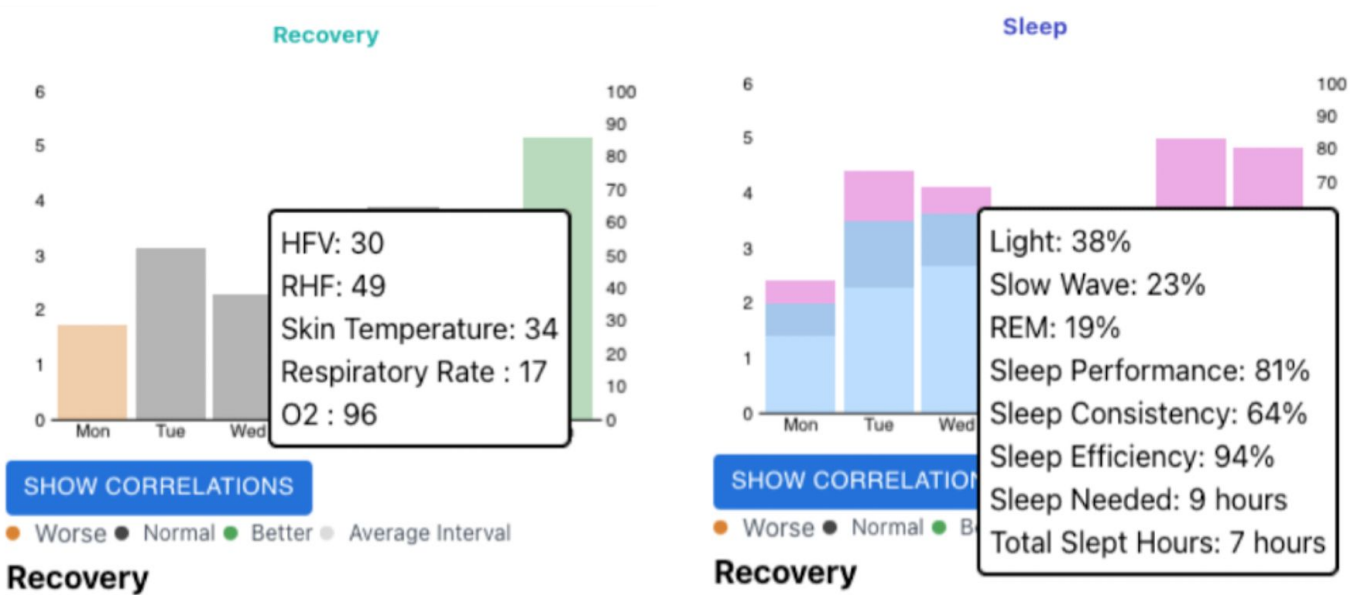
- **Supports DSI clinical researchers** in understanding patients, and
- **Supports patients** in reflecting on their personal health data
- **Is evaluated** in collaboration with DSI Health members

STARTING POINT

Bentvelzen, M., Wozniak, P., Herbes, P. et al (2022).
Revisiting Reflection in HCI: Four Design Resources for Technologies that Support Reflection.
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 6(1).
<http://dx.doi.org/10.1145/3517233>



STARTING POINT



OUR STARTING POINT

MON TUE WED **THU** FRI SAT SUN

Warmup

Duration/Distance: 2km

Details: HR 120-140 Stroke 18+-1

Main Training

Duration/Distance: 10km

Details: 4 (250m/1'rest) race speed, Rest: 4,
HR: Max, Stroke: 20 to max

Weight Session

Duration/Distance: Varies

Details: Session 2

Submit the perceived Load of today's
training to unlock the expected load



Easy Doable Hard but
doable Too hard

SUBMIT SCORE

MON TUE WED **THU** FRI SAT SUN

Warmup

Duration/Distance: 2km

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Main Training

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Details: 4 (250m/1'rest) race speed, Rest: 4,
HR: Max, Stroke: 20 to max

Weight Session

Duration/Distance: Varies

Details: Session 2

Submitted Load Score:

Doable

Expected Load for today:

Easy doable

OUR STARTING POINT

RefRec: an athlete-facing reflection-promoting application, functioning as our proof-of-concept

Developed in collaboration with the coach and members of a competitive rowing team

