

Types of Task: Health & Monitoring

Monday 10th April

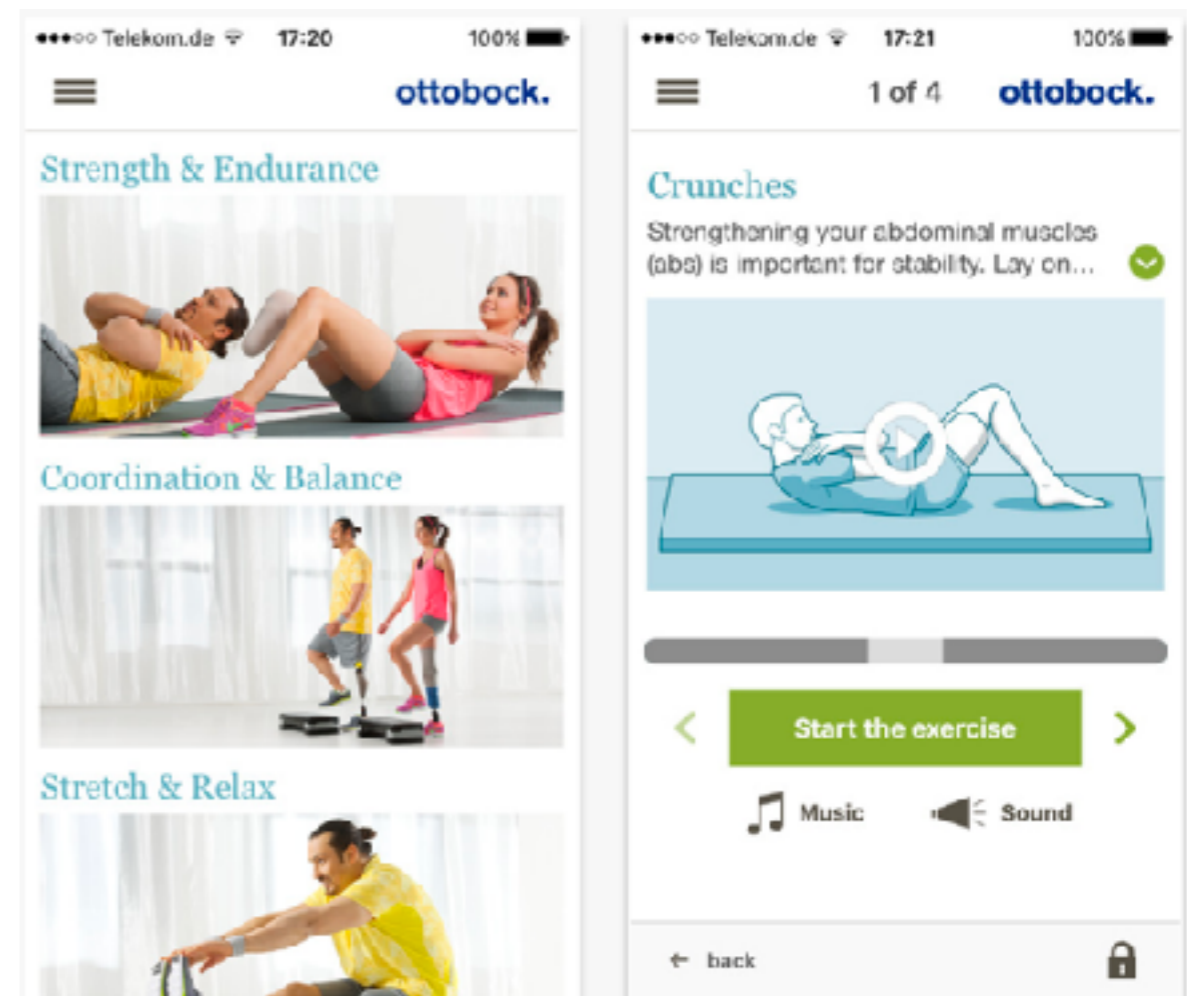
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Barriers to Physical Activity

- Self barriers
 - Fear of being ridiculed when exercising
 - General lack of activities to choose from
 - Not knowing what to do
- Safety concerns and fear of injury while exercising
- Lack of opportunities
 - Limited access to programs for participation, training, and competition
 - Lack of accessible facilities (gyms and buildings) and transportation
 - Lack of social opportunities, such as lack of exercise partners or guides with whom to exercise

Access to information & resources

- Inclusive Fitness Apps with accessible workouts
 - Cerebral Palsy Foundation: <https://youtu.be/naQO2bpBQQw>
- Fitness for Amputees App
 - By Ottobock, world-leading manufacturer and supplier of prosthetic limbs, orthotic supports and wheelchairs



Access to information + Social opportunity

- Fitness trackers for wheelchair users
 - Apple Watch
 - Chaotic Moons & Accenture
<https://vimeo.com/160133503>



- Allows for more social participation in sports

Programs for participating, training, and competing

- Challenged Athletes Foundation
 - “Help people with physical challenges pursue active lifestyles through physical fitness and competitive athletics”
 - Grant program for equipment, competition & training expenses
 - <http://www.challengedathletes.org/wp-content/uploads/2016/09/2016-Grant-Distribution-Sheet.pdf>
- Lakeshore
 - “Enable people with physical disability and chronic health conditions to lead healthy, active, and independent lifestyles through physical activity, sport, recreation, advocacy, policy, and research”

Alternative Ways to Exercise: Exergames

- Lowering barriers
 - Reduced risk of injury
 - Ability to play same games as peers
- For who?
 - Wide variety of impairments, sensory, physical, & cognitive
 - Wide variety of ages, from children to seniors
- Benefits
 - Moderate to vigorous intensity activity
 - Cognitive benefits
 - Therapy tool for children on the autism spectrum
 - Impact on mental health: Improved sociability, positive effect on anxiety

Exergames: VI Tennis

- <https://www.youtube.com/watch?v=PbffrfViNCg>

Exergame: Makoto Arena

- For seniors: <https://www.youtube.com/watch?v=ZgrG5Vmj2aQ>
- For children with ASD: <https://www.youtube.com/watch?v=-XsGAOEL-ZU>
- & many more

Health Monitoring

- “You Get Reminded You’re a Sick Person” (Ancker et al. 2015)
 - Data can be emotionally charged
 - It can be hard work to keep track of all relevant data
- Wearing medical sensors on/in you vs. having to input the information yourself?
- Smart Homes?
 - <https://www.youtube.com/watch?v=NCixWY3eaOc>
 - https://youtu.be/3Atky2Jt_-4 <https://youtu.be/MH6vA1fkUgY>

Health Monitoring for Diagnosis

- Behavioural Imaging, NODA to diagnose autism remotely (<https://behaviorimaging.com/noda-howitworks/>)
- <https://skinvision.com/>

Social networks

- PatientsLikeMe <https://www.patientslikeme.com/>
 - Track health
 - Get in touch with people who share your condition
 - Get opportunities for clinical trials/research
- Using social networks to monitor health?