




Playspace

Faster, easier, and more reliable cognitive testing in behavioral health at scale

Cognitive Testing is a Chore

- ▶ Traditional cognitive testing in behavioral health conditions, including in high-need conditions such as schizophrenia and bipolar disorder, relies on highly trained, expensive professionals
- ▶ Researchers wanting to use cognitive testing need to spend time and money on training and research materials
- ▶ Existing tests are static and can't be easily adapted to new research and clinical paradigms, and they don't reflect real life challenges



Welcome to the Playspace: Cognitive Testing as a Videogame

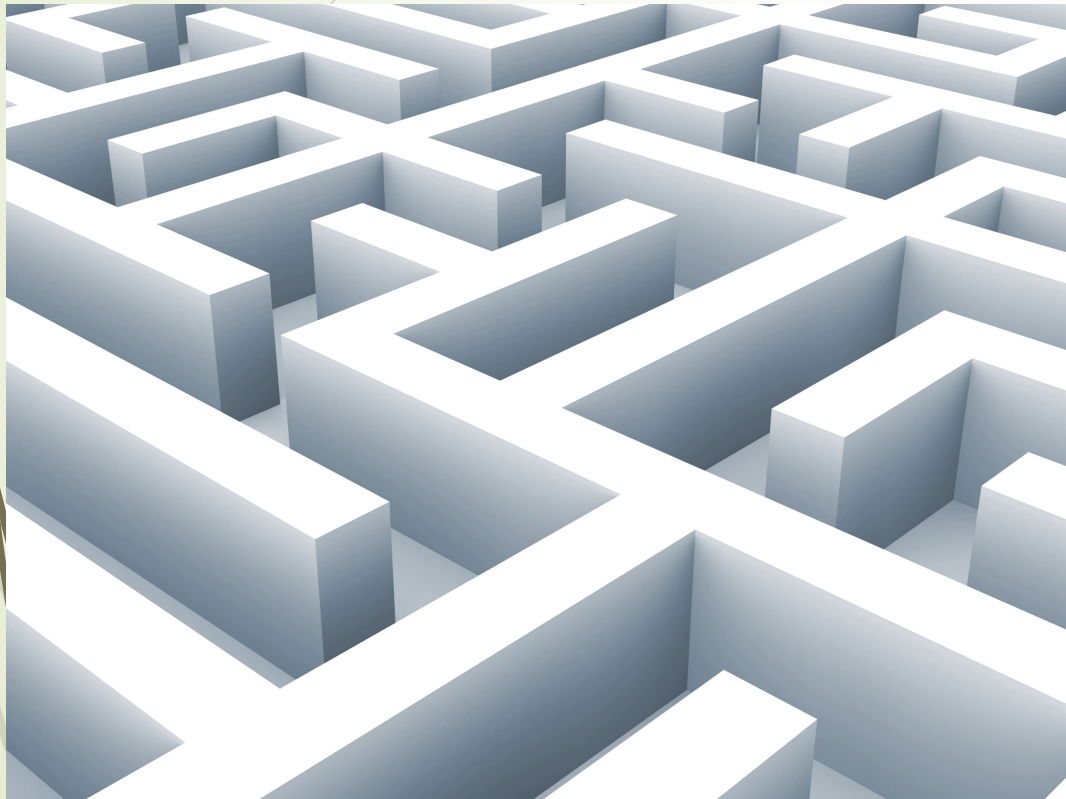
Playspace will be a modular, flexible cognitive testing platform that can be used anywhere, by anyone

It will be able to follow patients over time and serve as a marker of disease course

We will merge successful design principles from videogaming with established science to measure traditional and novel cognitive markers

From a Static Maze...

... to a dynamic game





Who will use it?

Because Playspace will be a fun, engaging activity:

Clinicians will finally have a test patients are not just willing but *eager* to use

Clinics involved in population screening will be able to offer it to their populations to screen for a number of disorders over time, facilitating critical early access to care

Researchers will use it as a flexible, modular tool to answer both existing and novel research questions

The competition

- ▶ Main competitors are sellers of existing paper and pencil tests and their computerized versions (i.e. the MATRICS battery)
- ▶ There are some major players in this space of computerized testing (i.e. CANTAB)
- ▶ These have two main drawbacks:
 - ▶ They are very expensive
 - ▶ They are not flexible enough to meet the demands of clinicians and researchers (the test is the test is the test)
 - ▶ They don't reflect real-life problems





Why we're the future

- ▶ Playspace will have a number of modifiable parameters that researchers and clinicians will be able to use to answer challenging and novel questions
- ▶ Playspace will be validated from the get-go to assist with determining clinical course
- ▶ Playspace won't require trained staff or expensive packages- it will be used as an app or web platform and will be as easy to use as playing any popular game
- ▶ Being developed from the start with the digital health field in mind, data mined by Playspace will be able to generate not only new observations and IP, but also to improve the system and widen its scope
- ▶ Playspace will be designed to be more ecologically valid than existing tests

Revenue streams



Existing test-selling groups
will want to license
Playspace for distribution
to researchers and
clinicians



Pharma and the medical
device industry will want
to license it as a
biomarker during clinical
trials (for participant
selection and outcome
measurement)



Public health or regional
health authorities will want
to use it for mass
screening



Testing as a service:
licenses could be
structured on a per-use
basis; given the game is
meant to be used multiple
times per patient, a lower
per-patient cost than the
competition should be
able to generate
significant revenue

The Dream Team



Dr. David Benrimoh
Computational Psychiatry



Dr. Al Powers
Team Lead



Dr. Andrew Sheldon
Child Psychiatry & Deep
Learning



Dr. Catalina Mourgues
Psychometrics and Data
Analysis



Focus and KPI's for Initial Funding

- ▶ Using our initial funding we would:
 - ▶ Develop Playspace as a mobile and browser-based system
 - ▶ Conduct initial validation studies in healthy controls and patients on the schizophrenia spectrum
 - ▶ Test the system as a screening tool in a population deployment
 - ▶ Using these results, conduct initial market studies
- ▶ KPIs:
 - ▶ Development of MVP in Schizophrenia
 - ▶ Completion of lab-based validation study
 - ▶ Completion of screening validation study
 - ▶ Completion of market study