

P S Y R I N

disrupting psychosis care with the
power of speech

www.psyryn.co.uk

PSYCHOSIS
CARE
PATHWAYS
ARE **BROKEN**

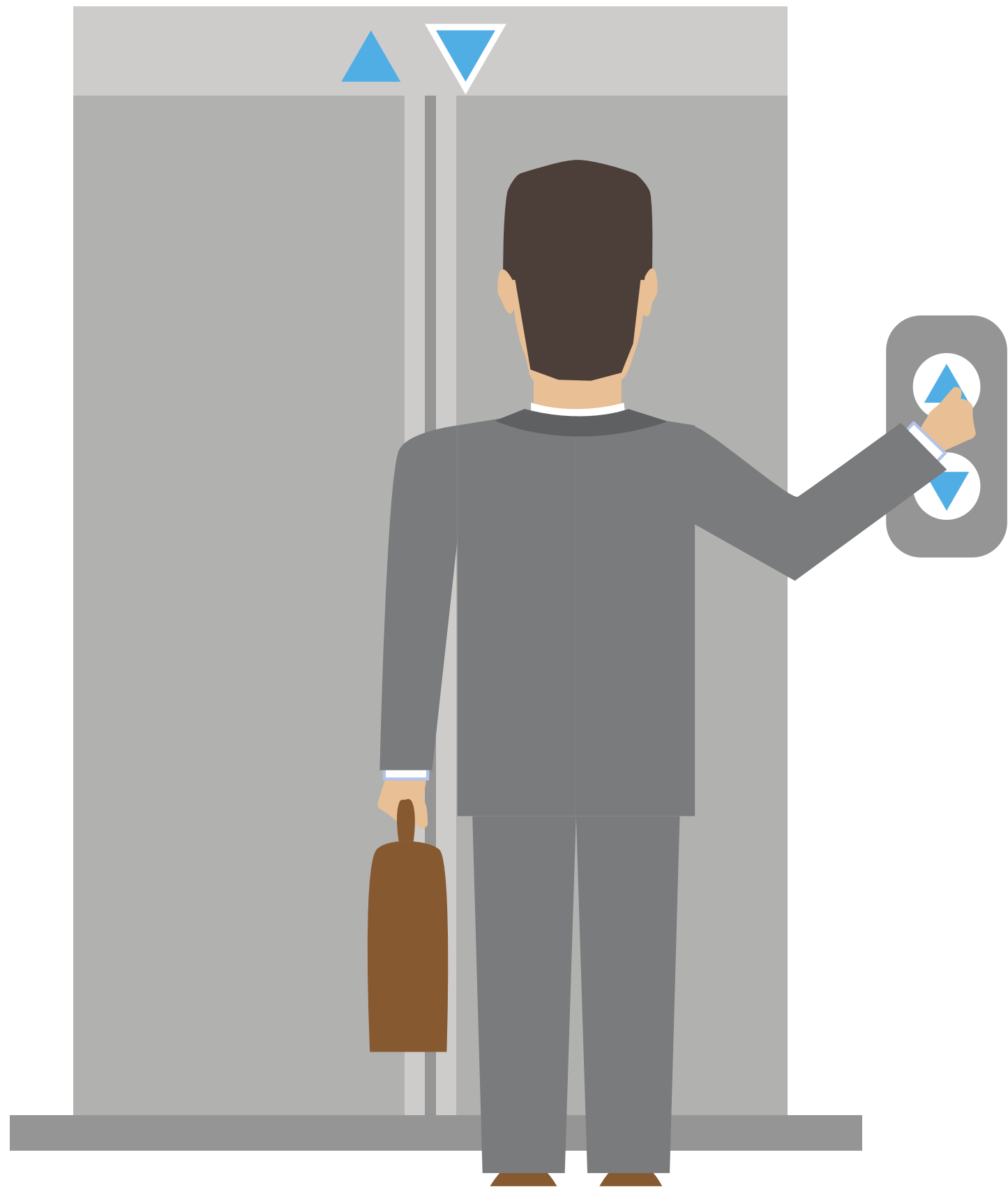
care providers are severely
overworked and short of time

9.5 YEARS

time to diagnosis for bipolar disorder

£6.7 BILLION

annual societal cost of psychosis in UK



OUR ELEVATOR PITCH

OUR SOLUTION

we enable **early, quick** and **remote** detection of psychosis along the entire care pathway



MOBILE
APPLICATION



ANALYSIS OF
SPEECH
FEATURES



AI-ENABLED
EXPLAINABLE RISK
STRATIFICATION



CONVENIENT
AND <10
MINUTES

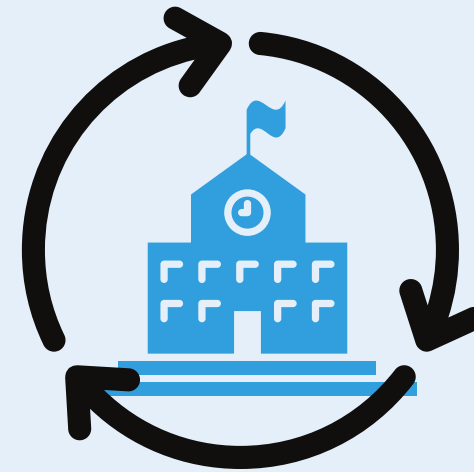
OUR SOLUTION

a focus on patient care along the entire psychosis care pathway



save time & offer
objectivity during
initial assessment

FIRST EPISODE



enable remote and
routine monitoring
during recovery

RELAPSE

OUR SOLUTION

a focus on patient care along the entire psychosis care pathway



intervene early to
avoid devastating
consequences

SERVICE USER

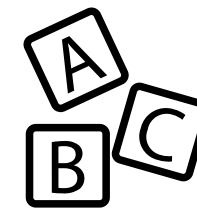
TECHNOLOGY



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For further information email
hello@psyrin.co.uk

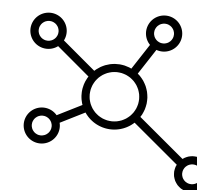
rooted in NLP &
graph analysis



semantics



structure



connectivity

Natural language processing in mental health applications using non-clinical texts†

Published online by Cambridge University Press: 30 January 201

Digital phenotyping of negative symptoms: the relationship to clinician ratings



Alex S Cohen , Elana Schwartz, Thanh P Le, Tovah Cowan, Brian Kirkpatrick,

High Predictive Accuracy of Negative Schizotypy With Acoustic Measures

[Alex S. Cohen](#)  , [Christopher R. Cox](#) , [...], and [Jeffrey S. Be](#)

Using Language Processing and Speech Analysis for the Identification of Psychosis and Other Disorders

Classification of bipolar disorder episodes based on analysis of voice and motor activity of patients mo A. Cecchi ^c

[Alban Maxhuni](#) ^a , [Angélica Muñoz-Meléndez](#) ^b , [Venet Osmar](#)
[Eduardo F. Morales](#) ^b 

Is the Web as good as the lab? Comparable performance from Web and lab in cognitive/perceptual experiments

Thought disorder measured as random speech structure classifies negative symptoms and schizophrenia diagnosis 6 months in advance

[Duchaine](#), [Christopher F. Chabris](#), [Garga Chatterjee](#) & [Jeremy](#)

MACHINE LEARNING PIPELINE

User interface:
Speech tasks

Data
processing:
Speech to text

Feature
extraction:
Coherence,
syntactics,
thematic,
emotional

Classification:
ML algorithm

User interface:
Risk classification

BLENDS TRADITIONAL AND MODERN

Clinical practitioner "prescribes"
mobile application to service user

Check-in at regular intervals



Administering traditional clinical tools

DELIVERY

Accessible and targeted support for those who need it - especially for young people at risk.



MOBILE
APPLICATION



WEB APP ON ANY
DEVICE



YOUNG PEOPLE
AT RISK



EARLY WARNING
SYSTEM

CLINICAL DASHBOARD

- See all patients
- Quickly view status & risk
- See treatment effect and deeper statistics over time
- Automated alerts and check-ins
- Saves time & gives more insight

TRACTION



Current aim: demonstrating scientific & clinical validity

>40
interviews

indicate more **urgent** need to alleviate psychiatrist caseload



supported by programmes from DigitalHealth.London & AHSNs for evidence generation



obtained UKRI Fast Start Innovation grant to conduct cross-sectional data study



working with UCL Center for Digital Innovation & AWS to build MVP (web app)

TAKEOFF



Current aim: Prototype to be created by Christmas 2022

ROADMAP

2022



pilot PoC study

supported by UKRI FastStart grant -
validate algorithms cross-sectionally

2023



run large clinical trials

conduct several simultaneous trials
(longitudinal) with clinical collaborators

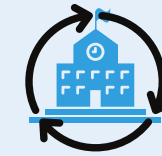
2024



implementation in ARMS

implement go-to-market strategy to
aid at-risk detection and triage

2026



relapse prediction

expand to relapse prediction in
secondary care (EIP) services

2027



overseas expansion

expand to other English-speaking
nations

2028



risk stratification at GP

integrate into primary care pathway for
mental health

help us transform psychosis care

hello@psyrin.co.uk



scan to get in touch

