

As a cognitive therapist,
I have been treating children who have escaped from North Korea ,
children with alcoholic parents,
Children from orphanages and from underprivileged families for 4 years.

Through a year of cognitive treatment,
We found these children boosted their cognitive levels up by 18%.

Yejin Choi, CEO of Dobrain

Dobrain Inc., Cognitive Brain Lab for Kids

Yejin Choi beambitious12@gmail.com

Mobile diagnosis

D-RAY

Mobile diagnosis of Autism Spectrum Disorder/ADHD

- ✓ 7min length program
- ✓ Provide diagnosis with 90%+ reliability



AI-therapy solution

D-KIT

AI-based Mobile Therapy Solution

- ✓ Game treatment optimized for children
- ✓ Does not require expensive devices (Used on Smartphones)

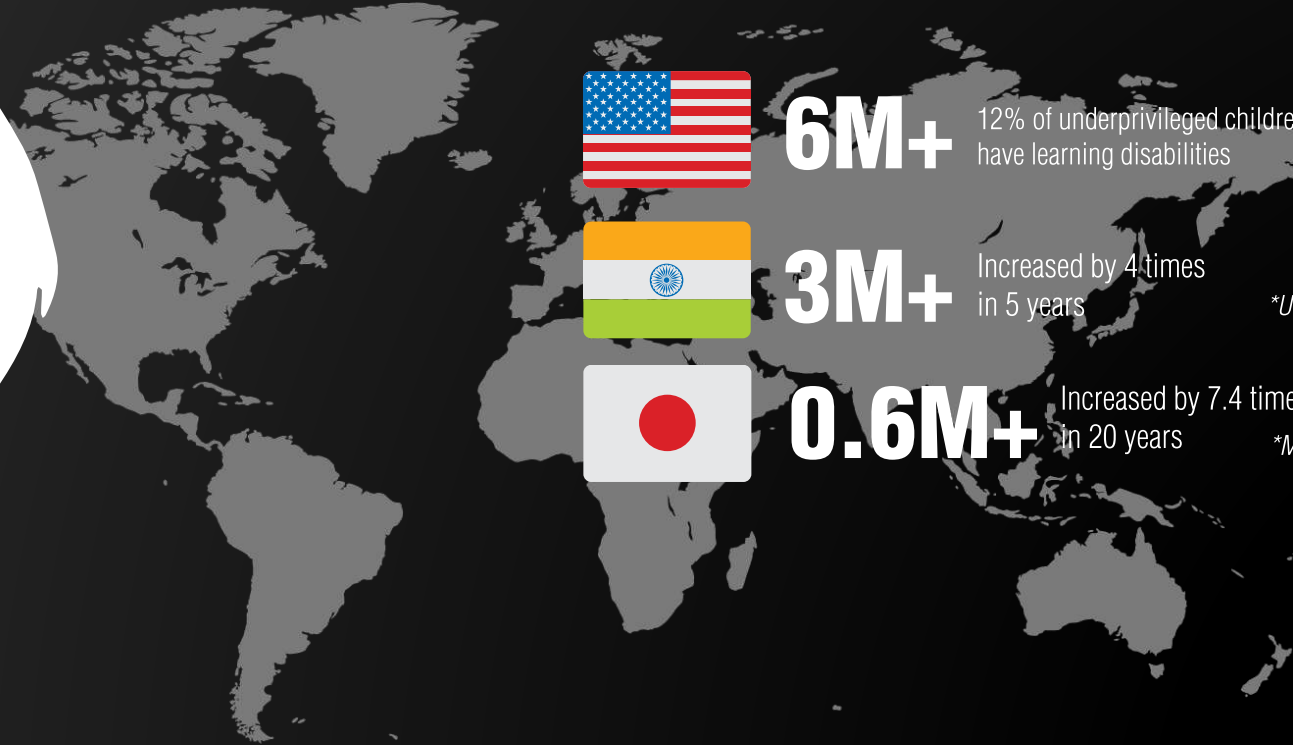


*DoBrain Therapy Screenshot

Problem

1 in 6 children around the world, experience developmental disabilities.

1 in 6 children in the United States experience developmental delays.



Problem

However, 93.7% of children with developmental delay are not receiving cognitive treatment.

Problem
01

Expensive

\$100~ / hour

Problem
02

Inaccessible

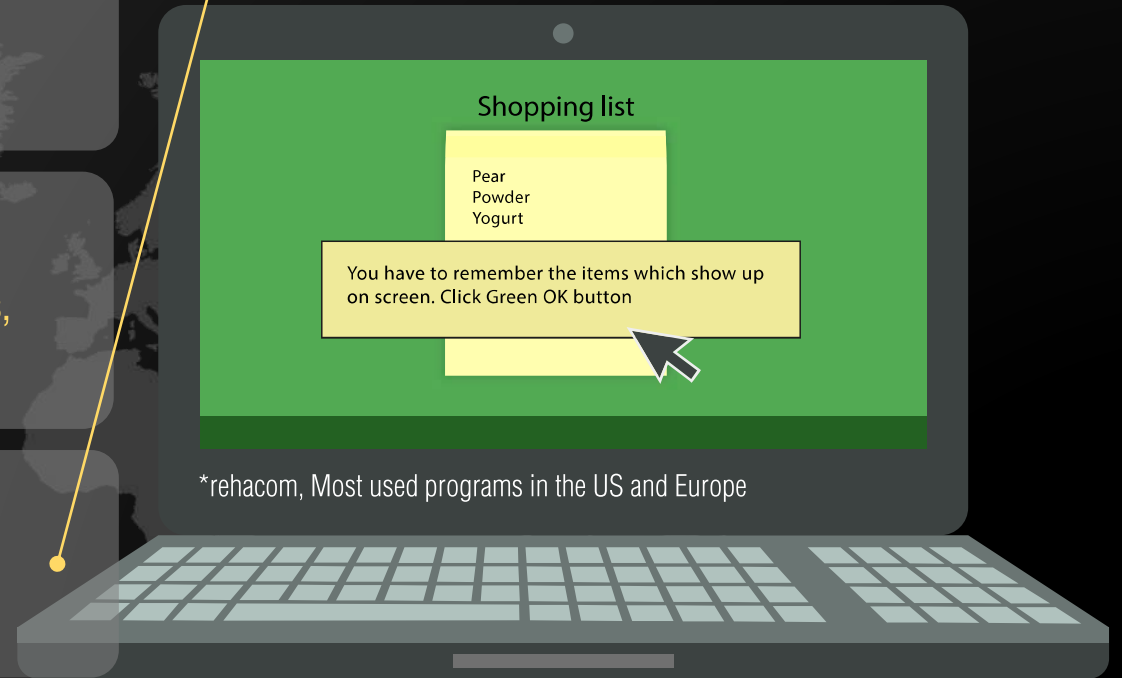
not **enough**
centers and programs,
too far away

Problem
03

Boring

20 years old system,
designed **for Adults**

text-based interface, difficult for young children





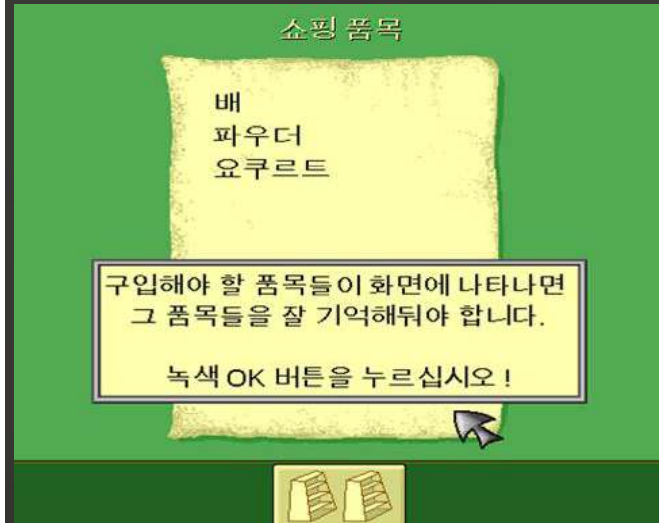
영역

쇼핑 품목

배
파우더
요구르트

구입해야 할 품목들이 화면에 나타나면
그 품목들을 잘 기억해둬야 합니다.

녹색 OK 버튼을 누르십시오!



대상재인, 선택적 집중, 기억

영역

1

크기

색상

크기

■ = 도움말

■ ● ■ ● ■ ● ■ → ?

스크린 아래 쪽에 있는 그림들 가운데서
한장을 찾아서 넣는 것입니다.



OK를 누르시오!

개념형성, 패턴인식, 추론, 안구운동



DoBrain **D**aily programs, stimulating 8 areas of the brain

The world's largest-scale infant cognitive treatment, with over 12,000 programs stimulating 8 core areas of the brain every day

01
Creativity

02
Reaction
Time

03
Logical
reasoning

04
Attention
& Memory

05
Constructional
ability

06
Mathematical
thinking

07
Discernment

08
Spatial
Perception



DoBrain **An Affordable solution**

Reduce the cost of cognitive treatment to 1/20 - 1/80 of current offline solutions

B2C Model

Subscription model for home

Target

100 million children (300 thousand in Korea)

Montly Fee

basic **\$9.9** /month premium **\$19.9**/ month

Reduce the average cost of cognitive treatment to 1/20 to 1/80 of current offline treatment

-With subscription , unlimited use of two brain treatment programs 12,000 + programs (96 new programs per week)



B2B Model

subscription model for centers

Target

Children's hospitals, welfare centers, cognitive treatment centers (3,000 places in Korea)

Montly Fee

\$10 /month per children

Unlimited usage

\$10,000 (no time or child limit)

The most used computerized program in the world, Rehacom, is priced at \$50,000

-Treatment Centers use data synchronized with data generated at home

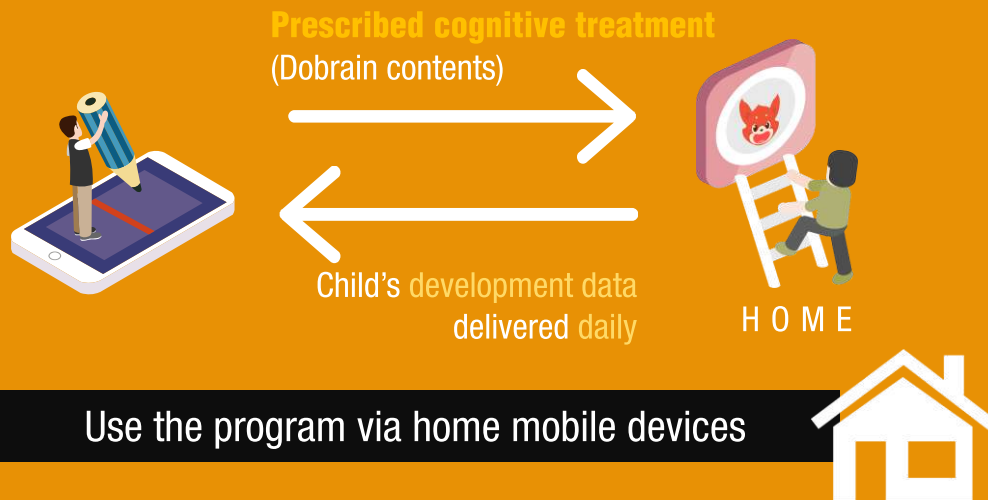


DoBrain **One-on-one personalized care**

Dobrain AI provides a personalized cognitive treatment program

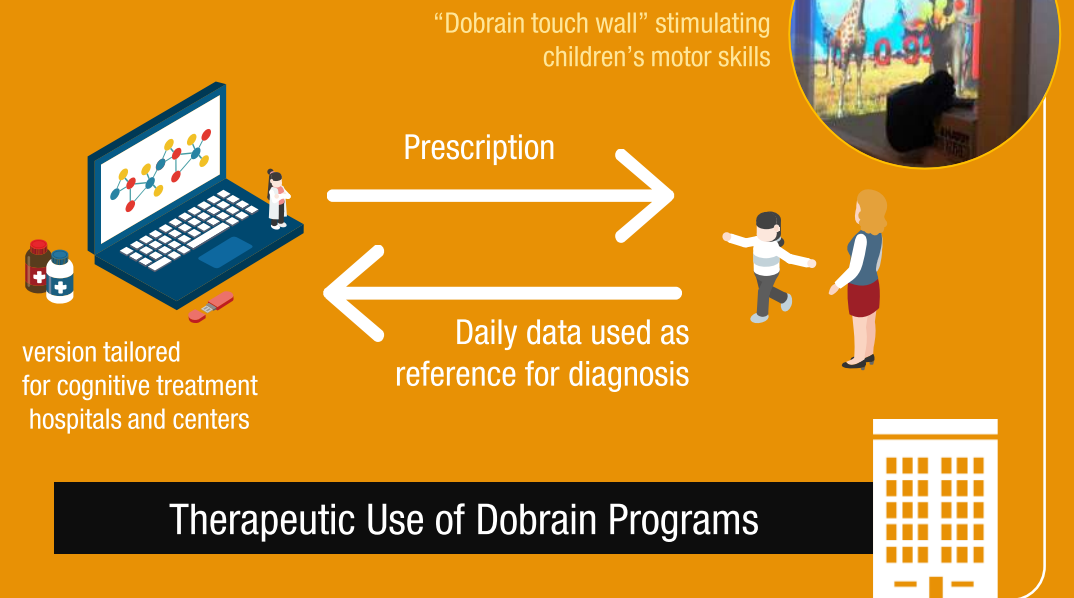
B2C use-case

Subscription model for home



B2B use-case

subscription model for centers

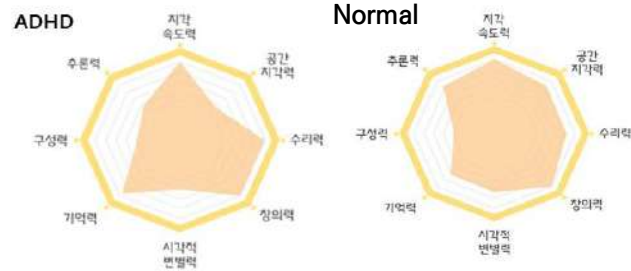


Dobrain AI

Data collected from 150 thousand DoBrain users

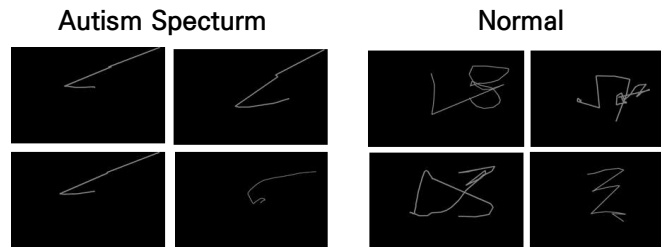
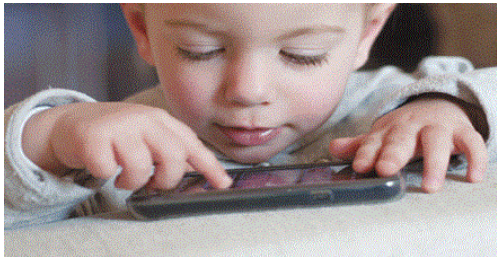
Data1: Cognitive level

- Collected through Dobrain cognitive diagnosis games
- Data base of 8 cognitive areas (100,000 accumulated users)



Data2: Finger fine motor skill

- Analyze images, finger pressure, pen pressure and accuracy from child's drawing.
- Analyze pressure data and image coordinate(10 data sets/second)



Data3: Face recognition

- ▷ Eye tracking
- Concentration and reaction



- ▷ Face recognition
- Reaction data of face muscles



Data4 : Voice recognition

- Child and parent's voice analysis on problem situations



Data5 : Lifelog analysis and life pattern assistant

Sleeping, exercise, communication length, direction of conversation, home atmosphere, Smartphone usage time.



DoBrain **Interesting and engaging for children**

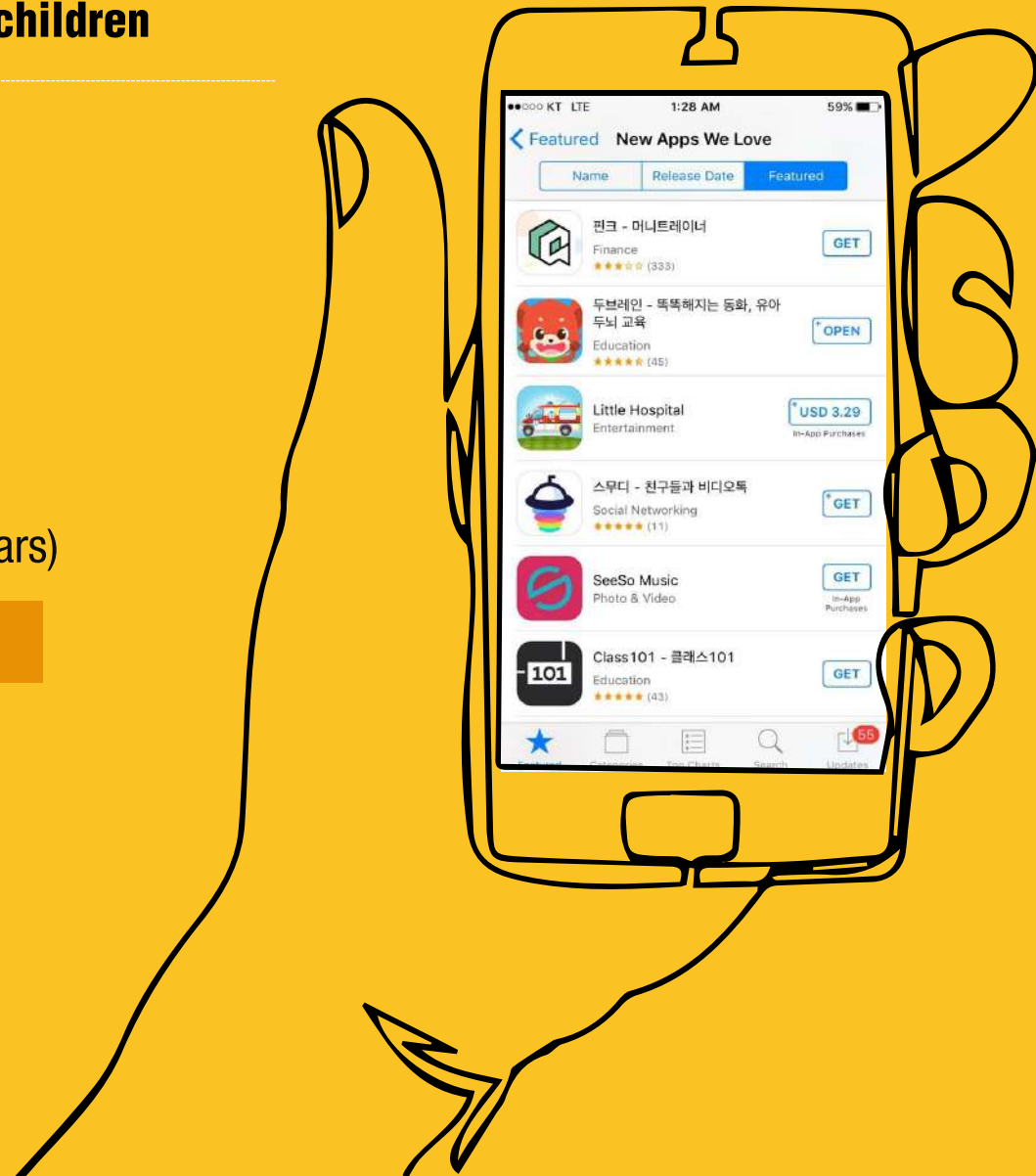
We are loved by children and boast monthly retention rates of over 50%.

Soft launch,

3rd place in Google Store education app,

1st place in app store free apps for kids (aged 6-8 years)

monthly retention: **53.4%** (Android) / **55.0%** (iOS)



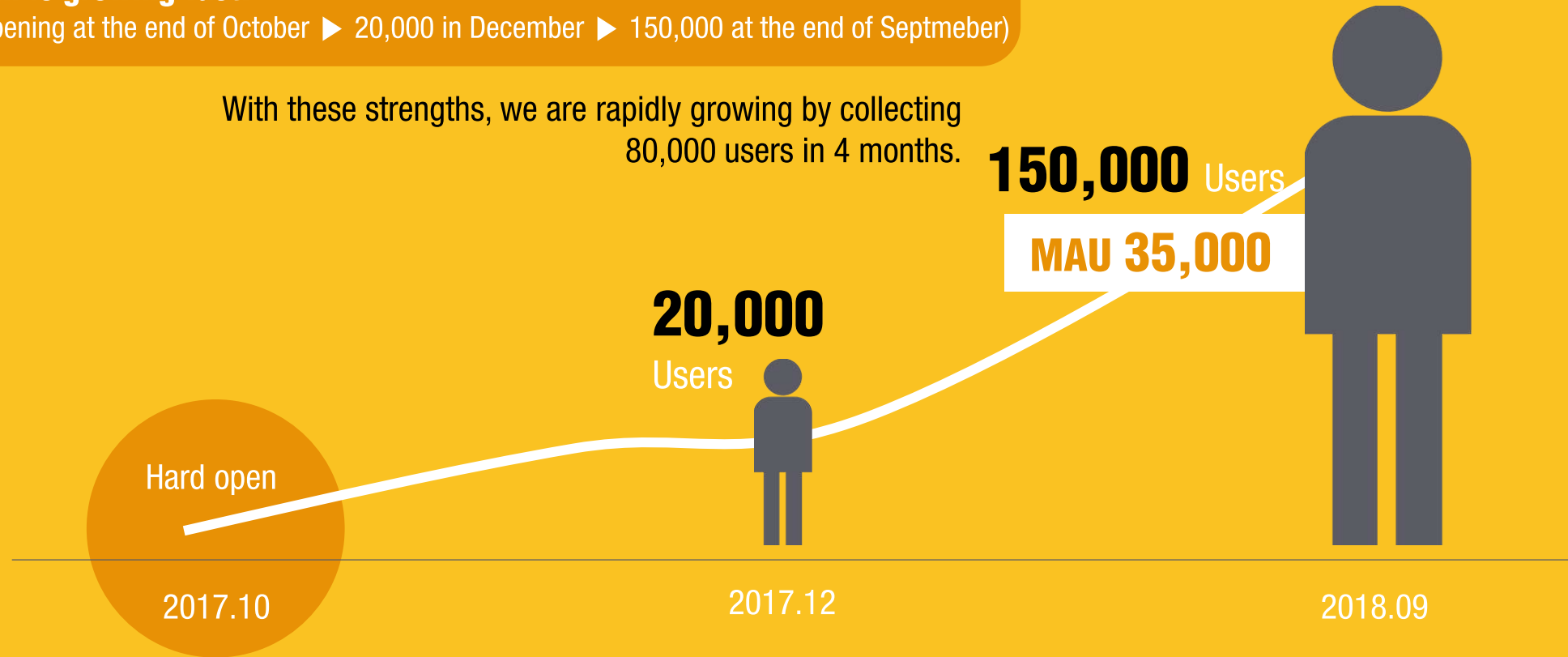
DoBrain **No.1** solution to help children reach their full cognitive potential.

We are the world's only cognitive treatment program designed for children aged under 7

Dobrain is growing fast.

(hard opening at the end of October ▶ 20,000 in December ▶ 150,000 at the end of Septmeber)

With these strengths, we are rapidly growing by collecting 80,000 users in 4 months.





DoBrain Research Consortium for developing diagnosis AI



서울대학교
SEOUL NATIONAL UNIVERSITY



연세대학교
YONSEI UNIVERSITY



서울아산병원
Asan Medical Center



서울대학교
빅데이터 연구실

Cognitive development software for children in Cambodia



Dobrain will bring incredible magic and hope to children around the world

100 Million of children
can be treated by mobile hospital.
This has a social value of
\$50B per every month.

(100m*\$500 /month)



Team **A multi-disciplinary research team competent in child cognitive development, artificial intelligence, rehabilitation medicine and strong executive power**

A cognitive therapist Co-Founder with Business Capability



CTO
Wooseong

SNU Entrepreneurship

- Full-stack developer
- Game engine Unity
- Former) WeFrix CTO

CMO
Byeongjae

SNU Vocational Education & Workforce Development

- Former) Clover CEO
- Data Analyst
- Growth Hacker

CEO
Yejin

SNU Business

- Cognitive therapist
- Child psychologist
- Former) Researcher at K&T Brain Lab

CFO
Alex

Columbia Business School MBA
Harvard Kennedy School, MPA

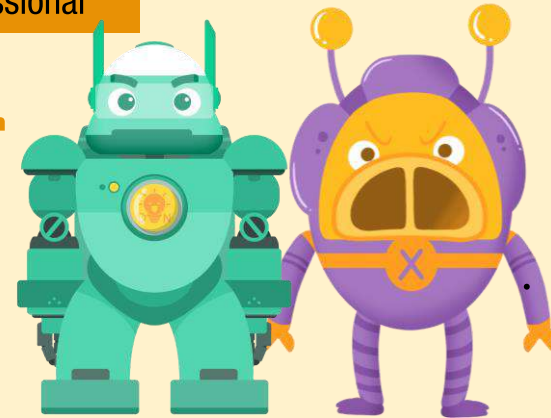
- Cofounder of Huemall, an online retailer for household goods (\$1M annual revenues)
- Have cofounded 8+ startups

Big data and AI Professional

Researcher
Daehwan

Phd Student in University of Wharton MIS

- Machine learning
- Deep learning



Researcher
Beomsoo

Phd Student in University of Arizona Eller College of MGMT

- Nexon / illegal identity theft
- Development of detection algorithm
- Development of predictive model of laser ophthalmic surgery result using B & L / A.I et al.

30 years career as Asan Hospital
Pediatric rehabilitation specialist

Professor of clinical research
Inyong Sung

- Present Professor, Rehabilitation Medicine, Asan Medical Center, Seoul
- Former Chairman of Pediatric Rehabilitation Medicine An injini researcher who was named "Best app for special children" by Apple



Career as Editor for "The Simpsons"

Animating Supervisor

Hyejin

- Editor for "The Simpsons"



Business Manager

Namdong

SNU Business
Korea University Law School



Appendix-1

Partnership_Asan Medical Center <http://eng.amc.seoul.kr>

AMC is the largest medical institution in Korea with a total of 2,704 beds occupying about 85,000 square meters.



- The most respected hospital in Korea for 11 consecutive years
- Korean Management Association Consulting (KMAC) (from 2007 to 2017)
- No. 1 in great workplaces in Korea - KMAC, 2012
- No. 1 in KS.SQI - Korean Standards Association, 2012
- No. 1 in global customer satisfaction survey for four consecutive years JMAC (From 2008 to 2011)

Dobrain's medical researcher_ Sung, In-young(M.D., Ph.D.)

Medical researcher of 'Injini', a cognitive improvement program, selected as the Best app for special children by Apple



- (Former) President of Koream Society of Pediatric Rehabilitation and Developmental Medicine
- Visiting Scholar at Rusk Rehabilitation Center New York University, USA
- Professor in UUCM AMC
- Researcher at Thomas Jefferson University Hospital, Nemours duPont Pediatrics, USA

Appendix-2

Team's Educational Background_Seoul National University

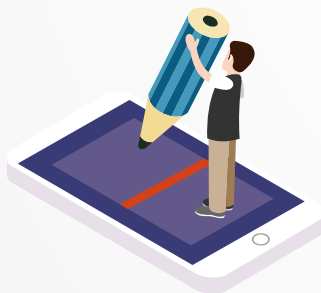
<http://en.snu.ac.kr/>



- No.1 university in Korea
- No. 24 in the world - METU
- No. 35 in the world - QS

As South Korea's first national university, Seoul National University has a tradition of standing up for democracy and peace on the Korean peninsula.

Medical AI development with SNU MIS Data team



Dobrain AI diagnoses the condition of the child and recommends cognitive therapy according to personal progress, concentration ability, emotional state and type of disability.

Appendix-3

Awards and Honors

- Top prize for “Urban Innovation Challenge: Citypreneurs” - UN ESCAP, WFUNA, SMG, 2017
- Excellence award from Asian Social Venture competition - SVCA, 2016
- No.1 in Korea Game Awards (Good game category) – Korea Ministry of Culture, 2017
- Top Prize in National Startup Competition – KDB, 2017
- Top prize in Social Venture Competition – Korea Ministry of Employment and Labor, 2016

