An award-winning health-education company, Joytingle’s products are used across 14 countries within 2 years of sales.

Customers from 1st world hospitals from Boston Children’s Hospital (USA) to developing nations such as Yangon’s Children’s Hospital (Myanmar).

For Joytingle’s far reaching impact, Founder Esther Wang graced the cover of Forbes Asia April 2018; as a Forbes 30 under 30 featured honoree in the category of Healthcare and Science.

Joytingle was also highlighted in Singapore’s Parliament as an example of “innovation by design” by Minister of Finance, Minister Heng Swee Keat.
My background and how I got started
Rabbit Ray is a friend to children. It is used by specialists to explain common medical procedures.

Blood-Draw (2 types)
IV Drip (e.g. Chemotherapy)
Vaccination
Plug Setting

Patient, 8 before treatment in Markham Stouffville Hospital, Canada

Patient, 7 after a blood test in Wolfson Children’s Hospital Florida, USA
Across different user scenarios:

- Children Wards to Special Needs Schools
- 1st world to developing nations
- By nurses, specialists or parents
What is Design Thinking?

- **Empathise**
  - Fresh Eyes
  - Common Mistake: Familiarity
  - User Research

- **Ideate**
  - Flush out all ideas
    (no self-censorship during ideation)
  - See what solutions are existing out there
  - Common mistake: “Copy-paste” over

- **Define**
  - Decisions
  - Challenges / Pain Points
  - Select 2-3 ideas

- **Mock-Up**
  - Create a low-cost, quick form of your ideas
    (it should not be perfect)

- **Test**
  - Key:
    - *Clear out assumptions quickly*
    - *Do so before investing further*
What is Design Thinking?

1. Empathise
2. Ideate
3. Define
4. Mock-Up
5. Test

Key:
- Create a low-cost, quick form of your ideas (it should not be perfect)

1) **Mock-Up** *(Sketches, Raw paper models)*
2) **Prototype** *(functioning for 1-2 key features)*
3) **MVP** *(Minimal Viable Product with key functions)*

Key:
- Clear out assumptions quickly
- Do so before investing further
Different Project Management Styles

“Waterfall” approach

“Design Thinking” style

Iterative Process: from 3 months to 2-3 weeks
Advantage of Civil Society in applying Design Thinking principles

• An important aspect of Design Thinking is the user research, user-testing process

Civil Societies have access to local communities; thereby drawing out local communities’ honest feedback quickly

• Eyes, ears on the ground, plus insights on last mile complexity; enables creation of realistic execution steps
Civil Societies are living, breathing feedback loops

• One key aspect of Artificial Intelligence is the feedback loop, and in this scenario – Civil Societies are the living breathing feedback loops.

There is nothing to be afraid of Artificial Intelligence, it is similar to Design-Thinking enabled by Technology for stronger feedback loops and transparency.
Pre-vaccination education for Children with Special Needs

One teacher shared a positive experience about a girl student from China was able to read the book because it also has Chinese words. The girl also hugged Rabbit Ray when she got 2 injections, and despite getting 2 injections, the girl was happy.

Ms. Yoke shared that their school will use Rabbit Ray as a teaching resource in their health education classes throughout the school year and plans on developing a lesson plan for it.

Ms. Yoke said Rabbit Ray would be potentially valuable for their Senior classes. A teacher shared that one of the senior student’s grandparent was hospitalized, and he got scared when he saw needle injection done on his grandparent.

Vice Principal - Ms. Yoke felt that “Rabbit Ray is something special we don’t have” and that the other toys her school has are play doctors sets that are “not realistic” and “provide very little in depth teaching and exposure.”

Rabbit Ray was used by MINDS teachers in their Health Education classes for Junior 3 (students age 10-12). This age group of students were going to take their vaccinations.

Using Rabbit Ray’s book, the teacher was able to introduce the topic of vaccinations using the book and describe the flow of blood and nutrients in the body.

Teachers brought Rabbit Ray to vaccination room to let the children hug it.
Testimonials

We have been using them (Rabbit Ray) with patients as young as one and even our older teens have been asking to use them. Its not unusual to hear shouts of “I want the bunny!” when a play specialist walks through the ward.

This has been a fantastic tool for patients to role-play their cannula and blood taking experiences. I love that it can be cleaned easily between patients. Looking forward to seeing your future products!

Victoria Hoque, CCLS
Department of Pediatrics Urology
Evelina London Children’s Hospital (London, UK)

“Rabbit Ray is a great teaching tool during medical play, in which kids can manipulate the real medical set equipped in Rabbit Ray!

They enjoy connecting the kits together, and talked about their own experiences while playing. It’s also easy to clean.”

Shih-Hsiang Chen, MD
Assistant Professor
Division of Hematology/Oncology,
Department of Pediatrics
Chang Guang Memorial Hospital (Taoyuan, Taiwan)

“Rabbit Ray is an innovative, engaging and thoughtful way to increase awareness of vaccinations and blood tests in children.

The St John Ambulance Cadets could tell me something different they had learnt. It is simple for anyone to use and for everyone to learn from!”

Clayton Kelly
State Youth Coordinator
Event Health Services (Australia)