Empathy & Insight in New Technology Thinking

Haiyan Zhang
Innovation Director & Technical Advisor
Microsoft Research, Cambridge
@haiyan
Engineer, Designer, Maker of Things
Microsoft Research presence
Transforming the world through deep, collaborative research
Insight

The capacity to gain an accurate and deep understanding of someone or something.

An elusive, encapsulated wisdom.
Insight is key in creating novel, impactful technologies.
AMAN’S MEMORY LOSS

- Short Term Memory
- Episodic Memory
- Semantic Memory
## HOW MIGHT WE SUPPORT AMAN IN HER TRANSITION TO A YOUNG ADULT?

<table>
<thead>
<tr>
<th>Family Routine</th>
<th>School</th>
<th>Family Leisure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting up</td>
<td>Classes</td>
<td>Weekends</td>
</tr>
<tr>
<td>Going to School</td>
<td>Gym</td>
<td>Holidays</td>
</tr>
<tr>
<td>Dinner</td>
<td>Play Time</td>
<td>Relatives Visiting</td>
</tr>
<tr>
<td>Bedtime</td>
<td></td>
<td>Family Outings</td>
</tr>
</tbody>
</table>

- **Help build Aman’s semantic knowledge to complete school**
- **Help Aman relive emotional moments with her family**
Hello Friends

Upload photos & videos for Tempest and record your audio memories (max 200mb file).

Sort by Date Uploaded, Date Taken, Audio.

We would like your feedback on this tool! Please send comments to huyian@gmail.com.
Project Emma
pp

PRM
COMP
PERF
MET
49948
1133 depress
99
"It's not going to be perfect... but, my God, it's better."
Emma

Final prototype

Writing samples
Software

Capture assessment session

Capture Wacom data
Emma

Without watch

With watch
Oh he's seizing.
Cystic Fibrosis is a life limiting illness and affects on average 1 out of every 2,500 babies. 100,000 people globally are living with CF.

The average predicted life expectancy is 41 years of age.
The Fizzyo device is a wireless sensor that connects to existing CF Physiotherapy equipment, turning breaths into controls for video games.
The Fizzyo device in action
Scaling Up Through Key Partnerships
“Technology such as this is not currently available and we believe has the potential to really change the way these children are cared for in the NHS.”

Professor Eleanor Main
University College London, Physiotherapy
Empathy & Insight in New Technology Thinking

Haiyan Zhang
Innovation Director & Technical Advisor
Microsoft Research, Cambridge
@haiyan