The world faces a learning crisis (WDR 2018)

EdTech to the rescue?
Some factors that explain poor performance across schools and student learning (World Bank 2014) include:

- Limited duration of **learning time** and **time spent on task**
- Lack of (**engaging**) learning materials
- An overall **inadequate learning environment**.
Another obstacle is that children don’t speak at home the **teaching language** (Shepherd, 2018; Seid, 2019).

- In Senegal, **93.7%** of secondary students report speaking a language other than French at home.
- Students who do not speak French at home are **>2X as likely to fail to achieve minimum thresholds** in reading, math and science (PISA-D, 2019).
- In addition, failing to learn to read is known to be a **driver of low academic achievement** as well as the decision to **leave school** (PASEC 2015).
EdTech is not looking good

• Most of the research of the 1st generation, mainly conducted in high or middle-income countries, shows limited effectiveness (e.g., one lap top per child in LAC (Cristia et al 2012; De Melo et al. 2014) or computer-assisted learning in India (Banerjee et al 2007).

• eReaders in Kenya were not effective (Piper et al., 2016).
Effects of Computer Assisted Learning (Snilstvei 2015)

Figure 6.2 g: Language Arts Test Scores

<table>
<thead>
<tr>
<th>Country</th>
<th>Effect Sizes [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peru1_b</td>
<td>-0.36 [-0.44, -0.27]</td>
</tr>
<tr>
<td>India3</td>
<td>-0.11 [-0.23, 0.01]</td>
</tr>
<tr>
<td>Nepal</td>
<td>-0.11 [-0.18, -0.04]</td>
</tr>
<tr>
<td>Peru1_a</td>
<td>-0.02 [-0.08, 0.04]</td>
</tr>
<tr>
<td>Uruguay</td>
<td>0.00 [-0.06, 0.06]</td>
</tr>
<tr>
<td>India1</td>
<td>0.00 [-0.06, 0.07]</td>
</tr>
<tr>
<td>China1</td>
<td>0.01 [-0.05, 0.07]</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.03 [-0.03, 0.09]</td>
</tr>
<tr>
<td>Peru3</td>
<td>0.04 [-0.07, 0.16]</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.06 [-0.05, 0.17]</td>
</tr>
<tr>
<td>Peru1_c</td>
<td>0.07 [-0.02, 0.15]</td>
</tr>
<tr>
<td>India2</td>
<td>0.07 [-0.01, 0.15]</td>
</tr>
<tr>
<td>China2</td>
<td>0.13 [0.06, 0.20]</td>
</tr>
<tr>
<td>RE Model</td>
<td>-0.01 [-0.08, 0.05]</td>
</tr>
</tbody>
</table>
Why go there again? **Games are fun**
A recent study with Syrian refugees (Integrated 2018) found an average use of 27 hours; and suggestive evidence of gains in foundational EGRA subtasks (i.e., letter, syllable and oral reading fluency).
Why go there again?

• Technological and logistical issues, lack of sufficient training for teachers, low use of laptops and a lack of integration of CAL into existing learning approaches may explain some of the adverse results (Snilstvei 2015).

• Mobiles and well designed-apps less likely to run into these issues?
Why go there again?

• In the case of the in-school programme the results suggest substantial negative effects on composite, language arts and maths scores, while when CAL was offered as an additional session students were observed to benefit quite substantially (Linden 2013).

• mLearning is in addition to classroom teaching.
Peak smartphone? Good

The maturing of the smartphone industry is cause for celebration

“nearly 4bn of the 5.5bn adults on the planet now have one”.
30% OF CHILDREN TAUGHT THEMSELVES TO READ.

We’re scaling these pilot results – so every child with smartphone access can learn to read.
Localization of language through smartphones

https://www.youtube.com/watch?v=q1sLtvI7nF4
Senegal

- Is mLearning more effective than **printed books**?
- Do effects vary by **language** of instruction?
HOW CAN YOU ENCOURAGE CUSTOMERS TO ACTUALLY USE YOUR APP?
US$1M to produce

US$10K to translate to a new language
Smart Investment?

• While development and production costs tend to be higher for mass media/apps, their distribution costs tend to approach zero.

• This make effective interventions practically cost-effective with respect to resource-intensive-face-to-face interventions.
Smart Investment?

• We are currently doing a cost-benefit analysis of the MTV Shuga results.
• Under very conservative assumptions, benefits remain above US$150M ($75 per $1 invested).

• Popular apps should follow a similar scale potential.