### INTRODUCTION

- Critical reviews focus on various aspects of technology for pronunciation training, i.e. the potential of e.a. CAPT, MALL,
- RALL, MOOCs, ASR assessment or chatbots (Pennington & Rogerson-Revell, 2019\*), visual feedback tools (Bliss et al., 2018). as well as trends (Fouz-González, 2015) and directions for the future of technologies (Grantham O'Brien et al., 2018).
- Exemplary content of web-based tools & accents included:







Lima, 2020







Adaptive HVPT system (Qian et al., 2018)

Ding et al., 2019

Satsuki et al., 2016







• Practitioners focus on how existing technologies may be adapted for pron training to offer various kinds of accent stimuli:

Twitter & Youalish (Kartal & Korucu-Kis, 2020); Windows Speech Recognition (McCrocklin, 2019); Google Cloud Speech API (Molenda et al., 2018); iPods & shadowing audio dialogues (Foote & McDonough, 2017);

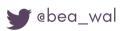
- Mobile apps as tools which may facilitate pron training: English File Pronunciation App (Fouz-González, 2020); 105 iOS apps researched (Kaiser, 2018);
- However, only individual apps offer content focusing on various dialects of English: The English Dialects App (Leeman et al., 2018)

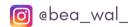


# **Technology for pronunciation** training and accents?

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#### RESEARCH QUESTIONS



The research addresses the following RQs:

- Do prestige native speaker models abound in free Google Play Store apps for pronunciation training?
- What are the other varieties in the remaining apps?

## **METHODS**







 $0.45 \, \text{m}$ 

(statista.com)

Education apps share: Google Play Store: 9.11%, App Store: 8.68%

- Keywords used to screen for pronunciation training apps: **pronunciation**, English pronunciation, accent, English accent;
- 1000 apps scraped (4 x 250 apps) with a bespoke Python script Walscrp (© P. Walesiak):
- Duplicates filtered out by unique app ID; paid apps **excluded**. Content analysis further excluded: non-pron apps, non-English apps, dictionaries, translators and audiobooks; poorly functioning apps, fake apps;
- For the resulting **subset of 296 apps**, app descriptions were screened for the target language variety (model).

#### RESULTS

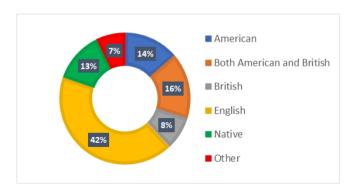


Figure 1. Pronunciation models in the app descriptions.

$$(n = 296)$$

	no of	
app type	apps	name - accent(s)
TTS and/or SR	15	Apps with *Google TTS and/or SR - various accents
accent coaching	1	The Accent Kit - UK (Cornwall - free), US, 'the rest of the world' accents
music	1	Learn Languages with music - various accents (songs)
videos	1	English Conversation Courses - various accents (Youtube videos)
podcasts	2	Aussie English, Aussie Slang & Pronunciations - Australian English
accent quiz	1	English Dialects - quiz about various UK accents

Figure 2. Other varieties (7%) - by app type. (n = 21)

## CONCLUSIONS

- Prestige native speakers are more predominant in the apps researched.
- More auditory research will follow to explore what 'English' and 'Native' stand for in the app descriptions.
- Local accents underrepresented in the apps, however, more flexibility allowed if SR api used (cf. WaveNet).
- More keywords necessary for further research.
- More cooperation between app developers and experts recommended to ensure equality and inclusion of both native and non-native models: