What’s app?
Negotiating the good, bad, and ugly of apps for (English and other) language learning.

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CSSE, June 1, 2016

Abstract
While schools attempt to merge new technologies and digital literacies in curricular instruction, the social permeation of mobile digital devices, uptake of social media, and utilization of apps is far more evident in social practice. Mobile digital technologies enabling novel learning designs hold much promise for both classroom (Mahruf et al, 2010; McCombs et al, 2006), and self-access learning (Kukulska-Hulme, 2009). However, a 2014 survey of Canadian teachers’ use of educational technologies (Mindsharelearning, 2014), confirms that the use of mobile devices in the classroom lags behind their ubiquity in social spheres.

The ubiquitous app—a third party computer program designed for mobile devices, and available at minimal or no cost to the user—is less than a decade old. In 2007, Apple produced a game-changing smart phone, which was a powerful portable computer capable of wireless Internet connection (Sanford, 2015), and enabling the user to communicate interactively in context. This presentation draws data from two studies on mobile language learning apps to disentangle the growing profusion of apps for language learning, examine the theory and pedagogy behind popular language teaching apps and consider how the affordances of mobile technologies might be imaginatively utilized for effective teaching and learning.
What is mobile learning?

- Mobile versus portable device
  (Reinders & Pegrum, 2015)

- Mobile learning
  (Guo, 2014; Sharples, 2009)

Reinders (2015, p. 1 quoting Ruben Puentedura, 2012): A mobile app is open and used whether moving or not; a portable app is not accessed in the same continuous way.

Mobile learning is part of mobile lifestyle. (Guo, 2014). Mobile learning combines learner’s experience of multiple mobility: in physical space, tech, conceptual space, social space, and dispersed over time (Sharples, 2009).
What is an app?

✦ The mobile application or app is a third party program designed for mobile digital devices.

✦ Apps are a $multibillion industry less than a decade old (Louis, 2013)

✦ Educational apps range from interactive reference tools (e.g., 3D atlas $9.99), to self-access learning (e.g., learn Papiamentu ($84.99) to social learning (e.g., elementary breakdancing $9.99; to how to fold napkins $5.49)…
My research is stimulated by the ways I see content-based language text apps appearing like mushrooms. Who is behind these apps? What is the place of the language professional in app design? My worries are many: given the huge waves of immigrants traversing the globe, app-based language learning is convenient and cheap—but what do you get for what you pay?

Mobile-assisted language learning (MALL, alternatively mobile learning) opens novel access to situated communication, invites innovative pedagogical designs (Mahruf et al, 2010; McCombs et al, 2006), and is well suited to self-access learning (Kukulska-Hulme, 2009). However the use of mobile devices in the language classroom lags behind their ubiquity in social spheres (Lotherington, 2015).

Mobile learning designs stretch across both formal and informal learning offering the potential for individualized learning that is situated, authentic, spontaneous, and informal (Kukulska-Hulme, 2008; 2009). This is design-oriented learning, which contrasts with the content-oriented transmission learning typical of classrooms (Kukulska-Hulme, 2009). However, apps also enable content-oriented (course) approaches wherein the app provides an integral language course in a mobile textbook. This removes the agency of design-oriented learning, where learner has more control of their own learning.

Gershon & Manning (2014) provide an evolutionary explanation of affordance, beginning with Gibson’s ecologically contextualized conception of affordance as being the possibility a thing offers for action, and moving on to Hutchby’s (2001) explanation in a technologically embedded context where there are designed areas of the environment.
“Some educators worry that the kind of active, collaborative learning facilitated by Web 2.0 is being eroded by a slick, corporatized ‘appification’ of the web (Quitney, Anderson & Rainie, 2012), leading to a learning landscape populated by individually purchased, independently used, stand-alone apps training limited sets of knowledge and skills.”

Reinders & Pegrum, 2015, p. 2

App-only content learning

This is what happens when we have a retail orientation to direct access learning.
Language teaching apps

✦ What apps are marketed for (English) language teaching and learning?
✦ What epistemologies of language underlie app ELT curricula?
✦ What pedagogies drive learning?

These are my research questions.
I did a small study of popular language teaching apps. Frequency counts /7: (18 apps)

<table>
<thead>
<tr>
<th>App</th>
<th>Frequency Count</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duolingo</td>
<td>6</td>
<td>1 = 4 times; 3 = 2 times - 26</td>
</tr>
<tr>
<td>Memrise</td>
<td>4</td>
<td>1 = 1 time; 2 = 2 times; 3 = 1 time - 16</td>
</tr>
<tr>
<td>Busu (b)</td>
<td>4</td>
<td>3 = 2 times; 5 = 2 times - 8</td>
</tr>
<tr>
<td>Rosetta Stone</td>
<td>2</td>
<td>2 = 1 time; 3 = 1 time - 7</td>
</tr>
<tr>
<td>Anki</td>
<td>2</td>
<td>1 = 1 time; 5 = 1 time - 6</td>
</tr>
<tr>
<td>Babbel</td>
<td>2</td>
<td>2 = 1 time; 5 = 1 time - 5</td>
</tr>
<tr>
<td>Livemocha</td>
<td>2</td>
<td>2 = 1 time; 5 = 1 time - 5</td>
</tr>
<tr>
<td>Lingvist</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Hello talk, Mondly</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Fluenz</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Pimsleur, Rocket Language, Living Language, Verbling</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>FSI Language Courses, Drops</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Language resources:
5. iHandy Translator - 1
<table>
<thead>
<tr>
<th>Most popular (6/7)</th>
<th>Very popular (4/7)</th>
<th>Very popular (4/7)</th>
<th>Popular (2/7)</th>
<th>Popular (2/7)</th>
<th>Popular (2/7)</th>
<th>Popular (2/7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>😞 free</td>
<td>$ freemium</td>
<td>$$$ freemium</td>
<td>$35 paid app; subscription costs?</td>
<td>$ freemium</td>
<td>freemium; now owned by Rosetta Stone</td>
<td></td>
</tr>
</tbody>
</table>

4 skills drills  flashcards; memorization 4 skills drills + social networking  “dynamic immersion” NS coach +4 skills drills flashcards; memorization 4 skills drills 4 skills + NS social networking

Luis von Ahn & Severin Hacker, USA
Ed Cooke & Greg Detre, USA
Bernhard Niesner, UK
Allen Stoltzfus & John Fairfield, USA
Damien Elmes, Australia
Marcus Witte, Thomas Hall; Lorenz Heine, Germany
Krishnan Seshadrinathan & Shirish Nadkarni, USA

duolingo.com memrise.com busuu.com Fairfield Language Technologies, USA anki-srs.net Lesson Nine GmbH, Berlin Fairfield Language Technologies, USA

MALL apps by consumer popularity according to edutech review sites.
Problems... Outdated, inadequate learning theories

- Importing old language pedagogies into new media, e.g., re-emergence of the flashcard

- Memorization for language learning goes back to behavioural approaches to language learning that were thought to be buried a half century ago...

“"This example illustrates what some programs call a three-sided flashcard...”

quote: https://en.wikipedia.org/wiki/Anki_(software)

Accessing old ideas in a new medium ≠ multimodal communication.
Problems…

Poor pedagogies

✦ Low level content
✦ Poor achievement tests
✦ Tedious repetitive drills
✦ Decontextualized vocabulary memorization
✦ All testing, no teaching

Thank you to my graduate classes in Multilingual Education and Multimodal Literacies for gamely road testing a selection of popular apps on the market for language learners.

"The mice are reading a book." reminds me of the early days of audiolingualism when I taught in the South Pacific, and I had an ancient textbook that offered as a feasible sentence: "I have a banana." Great conversation starter…
Problems…
Deprofessionalizing language teaching

Commodification of the “native speaker”

“Rosetta Stone Studio is searching for native UK English speakers to facilitate a series of energetic language classes for beginner to advanced students. Applicants MUST have a four-year college degree, be comfortable with technology, have access to broadband Internet from a personal computer, and be able to work up to 20 hours a week with a flexible schedule to accommodate students. We are specifically looking for candidates who have flexible availability weekday mornings, weekends and can specifically work at least one evening. Prior experience in ESL teaching is preferred, but not required.”


NS orientation means just that—not teachers but crowd-sourcing. Since when is a “native speaker” an effective teacher?
Problems… Remediating technically dated communication skills

✦ Importing old media language competencies

✦ Need for language and communication skills for 21st century media

Problems... Retailing deprofessionalized language learning

Content-based apps examined are on the whole retail-oriented, software-based outdated pedagogy in mobile talking textbooks.

"...for the most part uses of mobile devices were pedestrian, uncreative, and repetitive and did not take advantage of the mobility, peer connectivity, or advanced communication features of mobile devices."

Godwin-Jones, 2011, p. 7

The mobile learner needs the following (Sharples et al., 2009):
- Access to mobile technology
- Ownership
- Connectivity
- Integration
- Institutional support (which appears to be lacking in mobile content-based apps that take on the role of authority.)

The idea of memorizing a language goes back to behaviourism a hundred years ago, if not back centuries to boring grammar translation approaches; the audiolingual approach of the mid-20th century gave us drill and kill approaches that seem to have come back to life.
We have the opportunity to design learning differently: linking people in real and virtual worlds, creating learning communities between people on the move, providing expertise on demand and supporting a lifetime of learning. In order to understand how people learn through a mobile, pervasive and lifelong interaction with technology, we need to understand the implications of learning with mobile technology and build an appropriate theory of education for the mobile age.

Sharples et al, 2009, p. 234

Design-oriented learning

This requires teacher expertise and ingenuity and learner involvement and agency in their own learning plan, not instant app courses.
Chatbot: e.g., Siri

Multi-media social networking platforms,
  e.g., WhatsApp

Bo-Kristensen & Meyer (2008) looked at the evolution of early MALL designs from the language lab of the 70s moving towards the bonuses of mobile data capture in language learning.

The voice-activated personal assistant (Siri as chatbot) is not human so you can repeat ad nauseum without irritating anyone. You will need to practice speaking clearly, though a range of accents is accepted, in order to get your message across. The device types as you make your request so you can see how clearly you are speaking. The device points you to references—some useful, some not, but it is a start. And for early beginners, you can ask very simple questions and get simple responses.

In point of fact, speaking with machines means sharing cognition. In the case of language teaching and learning, this is helpful sharing but I do not make a wholesale recommendation to start sharing your life with helpful machines ... There are significant philosophical as well as psychological issues at stake.
The rise of the **chatbot** offers a scary scenario for human cognition—but a potentially interesting way to learn languages.

Olson, 2016

How you heard? Apps are dead. Chatbots are the new apps. And they will soon be doing everything, from taking your pizza orders to scheduling your meetings. This is the future and it’s going to be terrible.

The rise of the chatbot has been forecast for some time but only in the past few weeks with Facebook’s Messenger bots, that app Kik’s but now and the rise of subversive arbiters have they really hit the public consciousness.

Olson, 2016: http://www.forbes.com/sites/parmyolson/2016/02/10/kik-bots-messaging-facebook-wechat/#8ebd3325712c
Mobile learning potentially offers innovative learning designs

but we have a lot of work to do…

With commercial MALL apps the learner is connected to questionable conversationalists in social networking/crowd-sourcing functions—here, you know who you are dealing with.
The horizon in mobile language learning?

- Teachers need to recognize and work towards:
  - BYOD programs that incorporate mobile pedagogies crossing school-home borders (the new homework?)
  - Contextualized professional development utilizing new technical media to interactively support (not drive) learning (Dron, 2012; Lotherington, Paige & Holland-Spencer, 2013;)
  - Incorporating experimental pedagogies towards creative learning (Lotherington, 2011)
The horizon in mobile language learning?

- App developers need to recognize and work towards:
  - Theoretical validity
  - Informed pedagogical practice
  - Collaborative design incorporating (not hiring as the “help”) educational professionals
  - Shifting their gaze from making a buck to facilitating learning as the bottom line!
The horizon in mobile language learning?

✦ Policy makers need to recognize and work towards:

✦ Aligning curricular and testing goals to current technical media and communication skills

✦ Creating design-oriented, across-the-curriculum pedagogical project spaces in curricular and school documents
Special thanks to York grad students: Rosana Capredoni, Peter Jull & Nooshin Shakeri for permission to use their work; to my research assistant, Deborah Surtees; and to graduate students, and family members who road tested MALL apps.


