Mobile-Assisted Language Learning

Mike Kealey
Daegu KOTESOL
September 13, 2014
Overview

• introduction / advance organizer
• the past: early mobile devices to post-pc era
• the present: still on the fringes?
• the future: what’s next?
• summary & resources
advance organizer / conceptual schema

fact 1
fact 2
fact 3

mobile devices or mobile learning

question 1
question 2
question 3
Some Terms

- mobile device
- mobile learning
- mobile-assisted language learning (MALL)
- ubiquity
- app
- affordance
- bandwidth
Mobile Learning (m-learning)

• learning across multiple contexts, through social and content interactions, using personal electronic devices
Mobile-Assisted Language Learning (MALL)

- an approach to language learning that is assisted or enhanced through the use of a handheld mobile device
- MALL is a subset of both mobile learning (m-learning) and computer-assisted language learning (CALL)
Ubiquity

• being present everywhere
• learning anytime, anywhere
App

- "application software"

- a **mobile app** is a computer program designed to run on smartphones, tablet computers, and other mobile devices
Affordance

• the qualities of an object (e.g., mobile device) that define its possible uses
Bandwidth

• the rate at which data can move through an Internet connection
Part 1: The Past

The history of mobile devices and mobile language learning: 1973-2010
first handheld mobile phone
Motorola 1973
first MALL implementation study 1994

- use of personal digital assistants (PDAs) to improve L1 English writing skills of Canadian high school students (Callan, 1994)
the evolution of mobile phones
the evolution of mobile phones cont’d
other (obsolete?) devices
The “post-PC” era
iPhone 2007
Android 2007
app stores 2008

Available on the iPhone
App Store

Google Play
LTE Standard 2009
The Rise of Social Media 2004-2010
Part 2: The Present

MALL: Still on the fringes?
Activity 2

<table>
<thead>
<tr>
<th>Affordances/Uses of Mobile Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>- camera (photo, video recording)</td>
</tr>
<tr>
<td>- social network apps (Facebook)</td>
</tr>
<tr>
<td>- cloud storage</td>
</tr>
<tr>
<td>- media player (audio, video)</td>
</tr>
<tr>
<td>- microphone (audio recording)</td>
</tr>
<tr>
<td>- web browser/access to websites</td>
</tr>
<tr>
<td>- dictionary app</td>
</tr>
<tr>
<td>- calculator</td>
</tr>
<tr>
<td>- podcast aggregator/player</td>
</tr>
<tr>
<td>- mobile office apps</td>
</tr>
<tr>
<td>- local flash storage</td>
</tr>
<tr>
<td>- geolocation</td>
</tr>
<tr>
<td>- messaging (FB, Kakao, etc.)</td>
</tr>
<tr>
<td>- QR code reader</td>
</tr>
<tr>
<td>- email</td>
</tr>
<tr>
<td>- telephone/voice communication</td>
</tr>
<tr>
<td>- ebook reader</td>
</tr>
<tr>
<td>- clock</td>
</tr>
</tbody>
</table>

Think of **three successful activities** that you have implemented with your students that involve the use of mobile devices. Share these with your group:

1.
2.
3.

Think of **three challenges or difficulties** related to the use of mobile devices in your classes. Share these with your group:

1.
2.
3.
smartphone penetration by country

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country/Territory</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United Arab Emirates</td>
<td>73.8%</td>
</tr>
<tr>
<td>2</td>
<td>South Korea</td>
<td>73.0%</td>
</tr>
<tr>
<td>3</td>
<td>Saudi Arabia</td>
<td>72.8%</td>
</tr>
<tr>
<td>4</td>
<td>Singapore</td>
<td>71.7%</td>
</tr>
<tr>
<td>5</td>
<td>Norway</td>
<td>67.5%</td>
</tr>
</tbody>
</table>
4G LTE penetration by country

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country/Territory</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>South Korea</td>
<td>62.0%</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>21.3%</td>
</tr>
<tr>
<td>3</td>
<td>United States</td>
<td>21.1%</td>
</tr>
<tr>
<td>4</td>
<td>Australia</td>
<td>19.0%</td>
</tr>
<tr>
<td>5</td>
<td>Sweden</td>
<td>14.0%</td>
</tr>
</tbody>
</table>
# Internet connection speeds by country

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country/Territory</th>
<th>Avg. connection speed (Mbit/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Global</td>
<td>3.9</td>
</tr>
<tr>
<td>1</td>
<td>South Korea</td>
<td>23.6</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>14.6</td>
</tr>
<tr>
<td>3</td>
<td>Hong Kong</td>
<td>13.3</td>
</tr>
<tr>
<td>4</td>
<td>Switzerland</td>
<td>12.7</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands</td>
<td>12.4</td>
</tr>
</tbody>
</table>
The Adoption of MALL: Enabling Factors

• all students are “digital natives” (post 1985)
• device ownership near 100% (BYOD)
• two mature mobile platforms
• mobile app economy surging
The Adoption of MALL: Limiting Factors

• over 600 MALL publications over the last 20 years
• over 345 implementation studies
• very few statistically reliable measures of learning outcomes
• absence of follow up reports of curricular integration
Limiting Factors cont’d

• still in “early adopter phase” (see Roger’s model)
• lack of training available
• lack of integrated mobile learning management systems
Roger’s Model of Diffusion of Innovations
Some Apps & Projects
Most Popular Language Learning Apps
Lifehacker (2013)

1. Duolingo
2. Anki
3. Pimsleur Method
4. Livemocha
5. Memrise
i>clicker provides user-friendly technology that enables instructors and students to interact dynamically in minutes.

1. Instructors ask questions through any presentation application.
2. Students answer questions with a remote or smart device.
3. Instructors display results in real-time and record responses.
Digital Storytelling
Digital Research Projects
Part 3: The Future

What’s next?
### Activity 3

#### Mobile-Assisted Language Learning

**Popular Uses of Mobile Devices**
- Camera (still, video recording)
- Text/messaging
- Social networking apps (Facebook, Twitter, etc.)
- Media player (music, video)
- Email
- Web browsing
- Games/multimedia
- Maps
- Calendar
- Alarm clock

#### Ideas for Classroom Activities

- Use mobile devices to enhance student engagement.

1. 
2. 
3. 

#### Potential Challenges or Difficulties

- Identifying suitable content for different age groups.
- Ensuring device compatibility with classroom resources.

1. 
2. 
3.
The Future of MALL

• transition from fringe to mainstream technology
• wearable devices
• Moore’s law
• mobile learning management systems
Wearable Devices
Moore’s Law
Roger’s Model of Diffusion of Innovations
Technology Acceptance Model
Davis (1989)
Integrated MLMS / Dashboard / Gradebook / Assessment & Feedback Tools

### Gradebook

#### Language Arts

<table>
<thead>
<tr>
<th>Student</th>
<th>Poetry Assignment I</th>
<th>In-Class Oral Report</th>
<th>In-Class Participation</th>
<th>End of Term Exam</th>
<th>Poetry Assignment II</th>
<th>Poetry Assignment III</th>
<th>Assignment Worksheet</th>
<th>Pop Quiz</th>
<th>Write Different Types of Sentences</th>
<th>Practice Final Exam</th>
<th>Category Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEN BECKMAN</td>
<td>A</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>B</td>
<td>95%</td>
<td>90%</td>
<td>A (95%)</td>
</tr>
<tr>
<td>LISA DEVINEY</td>
<td>A</td>
<td>B+</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>A-</td>
<td>A-</td>
<td>B</td>
<td>90%</td>
<td>90%</td>
<td>B (85%)</td>
</tr>
<tr>
<td>ASHLEY DYER</td>
<td>A-</td>
<td>B</td>
<td>A</td>
<td>A+</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>85%</td>
<td>90%</td>
<td>B (86%)</td>
</tr>
<tr>
<td>COREY MAAS</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B+</td>
<td>B-</td>
<td>B+</td>
<td>A</td>
<td>A</td>
<td>90%</td>
<td>90%</td>
<td>C (78%)</td>
</tr>
<tr>
<td>SALLY MUND</td>
<td>B+</td>
<td>A</td>
<td>A-</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td>A+</td>
<td>A</td>
<td>75%</td>
<td>90%</td>
<td>A (95%)</td>
</tr>
<tr>
<td>MARK SANDS</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>A-</td>
<td>A</td>
<td>C</td>
<td>A</td>
<td>B</td>
<td>80%</td>
<td>90%</td>
<td>A (95%)</td>
</tr>
<tr>
<td>FRED SHALL</td>
<td>A</td>
<td>A-</td>
<td>B</td>
<td>A</td>
<td>A+</td>
<td>B</td>
<td>C</td>
<td>A-</td>
<td>70%</td>
<td>90%</td>
<td>D (62%)</td>
</tr>
<tr>
<td>LAURA THOMAS</td>
<td>A-</td>
<td>A+</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>90%</td>
<td>90%</td>
<td>A (95%)</td>
</tr>
<tr>
<td>SARAH TOMASON</td>
<td>B</td>
<td>B</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A-</td>
<td>A+</td>
<td>B</td>
<td>92%</td>
<td>90%</td>
<td>A (95%)</td>
</tr>
<tr>
<td>KATE UNGER</td>
<td>A</td>
<td>B-</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>A-</td>
<td>A</td>
<td>B</td>
<td>85%</td>
<td>90%</td>
<td>A (95%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>FINAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Papers</strong></td>
<td><strong>Participation</strong></td>
<td><strong>Exams</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Homework</strong></td>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Final grades are calculated based on the weighted averages of each category.*
Summary

• Context
  – rapid evolution

• Enabling factors
  – Networks and devices in place
  – Students love to use their mobile phones!

• Limiting factors
  – Critical lack of supporting research
  – Lack of tools and training for teachers

• Future direction
  – Continued exponential increase in mobile computing power
  – Majority/mainstream adoption inevitable
Burston’s statement on the potential of MALL (2014)
There is every reason to expect that MALL can make significant contributions to improving language learning in the following ways:
There is every reason to expect that MALL can make significant contributions to improving language learning in the following ways:

• increasing time spent on language acquisition out of class
There is every reason to expect that MALL can make significant contributions to improving language learning in the following ways:

• increasing time spent on language acquisition out of class
• exploiting mobile multimedia facilities to engage learners in task-based activities
There is every reason to expect that MALL can make significant contributions to improving language learning in the following ways:

• increasing time spent on language acquisition out of class

• exploiting mobile multimedia facilities to engage learners in task-based activities

• using the communication affordances of mobile devices to promote collaborative interaction in the L2
Resources

• Google scholar
  – “mobile-assisted language learning”
  – Agnes Kukulska-Hulme
  – Jack Burston
Resources cont’d

• Mobile Pedagogy for English Language Teaching: A Guide for Teachers
  – Kukulska-Hulme, Donohue, & Norris (2014)
  – British Council
Resources cont’d
Coursera.org

University of Houston System

Powerful Tools for Teaching and Learning: Digital Storytelling

Learn the digital storytelling process and use the skills learned from the course to create a digital story for use in a K-12 classroom, composed of still images, audio narration, music and text.