

# The Future of Mobile Learning

Niall Winters

London Knowledge Lab

Institute of Education, University of London

[n.winters@ioe.ac.uk](mailto:n.winters@ioe.ac.uk) | @nwin | <http://www.lkl.ac.uk/niall>

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United Nations  
Educational, Scientific and  
Cultural Organization

NOKIA

A stylized map of Europe where the landmass is filled with various colorful icons of mobile phones and tablets, representing mobile learning. The background is a dark blue gradient.

# THE FUTURE OF MOBILE LEARNING

IMPLICATIONS FOR POLICY MAKERS AND PLANNERS

## UNESCO Working Paper Series

Carly Shuler  
Niall Winters  
Mark West

Mike Sharples  
Rebecca Kraut

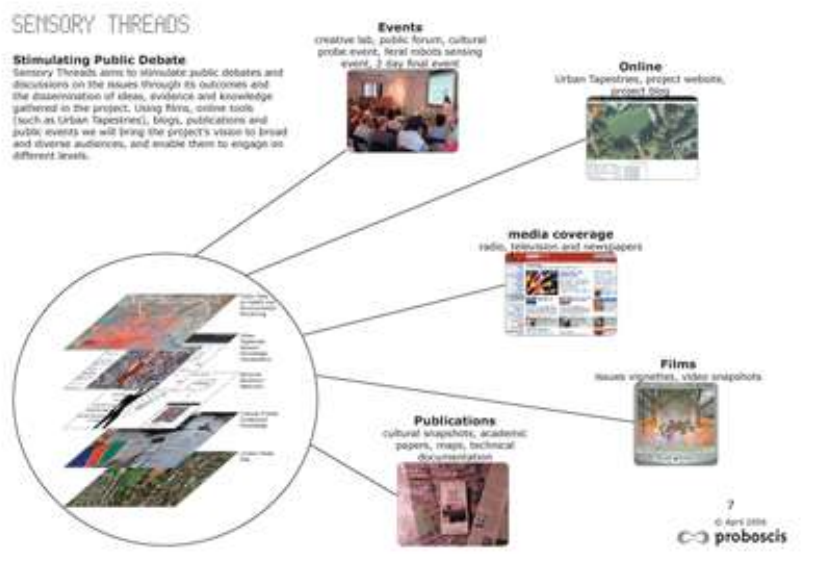
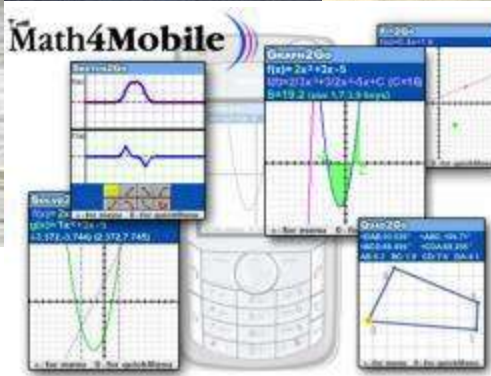
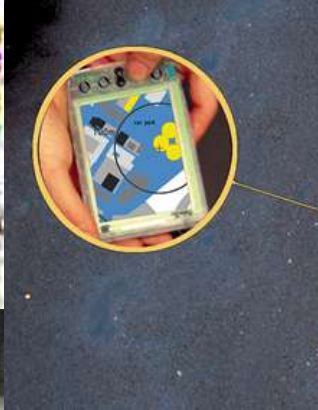
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Tweet your background (researcher,  
practitioner, policymaker, ...) [#mlw2013](#)

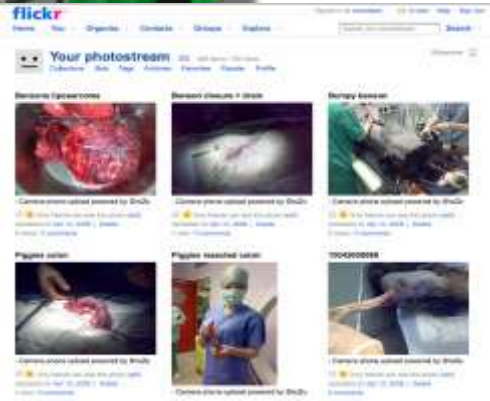
# Outline

- Part I: Current state of mobile learning
- Part II: The Future: the next 15 years
  - Education for All (EFA)
- Part III: Grand Challenges
  - What do you think is a grand challenge? [#mlw2013](#)
- Q&A (with twitter backchannel)

# Part I



# CoMo: Supporting collaborative group work using mobile phones



# Social media:

Supporting supervision at a distance





One Laptop Per Child (OLPC)

# The present

- Formal Education
  - 1:1
  - Bring your own device (BYOD)
- Informal Education
  - Skills-based
  - Nokia Life Tools
- Seamless Learning
  - Across formal/informal
- Technology
  - Digital textbooks, e-readers, mobile applications



# Rationale

- **Rationale:** Despite 15+ years of research the impact of mobile learning has not been significant
- **Aim:** Better engage with policymakers: A resource to promote the use of mobile technologies for learning in the long-term and at scale
- **Key underpinning:** How mobile learning interventions intersect with social, cultural and commercial factors (Winters, 2013)

# Part II

# The future

- MOOCs & Experiential learning
  - Integration of *in-situ* learning
  - Capture practice data and share/discuss
- Authentic and personalized learning
  - Real-time analysis of new kinds of data sets
- New forms of (formative) assessment
  - How learning practices are recorded
- Mobile programming
  - AppsForGood, CoderDojo, Raspberry Pi, AkiraChix
- Global social interaction
  - Build on connected classrooms

# ML & Education for All (EFA)

- Remit: provide quality basic education for all children, youth and adults (UNESCO, 2000)
- Themes which ML can help address
  - Access
  - Life Skills
  - Gender equality
  - Learning outcomes
- Where are we now & where next?

# Access

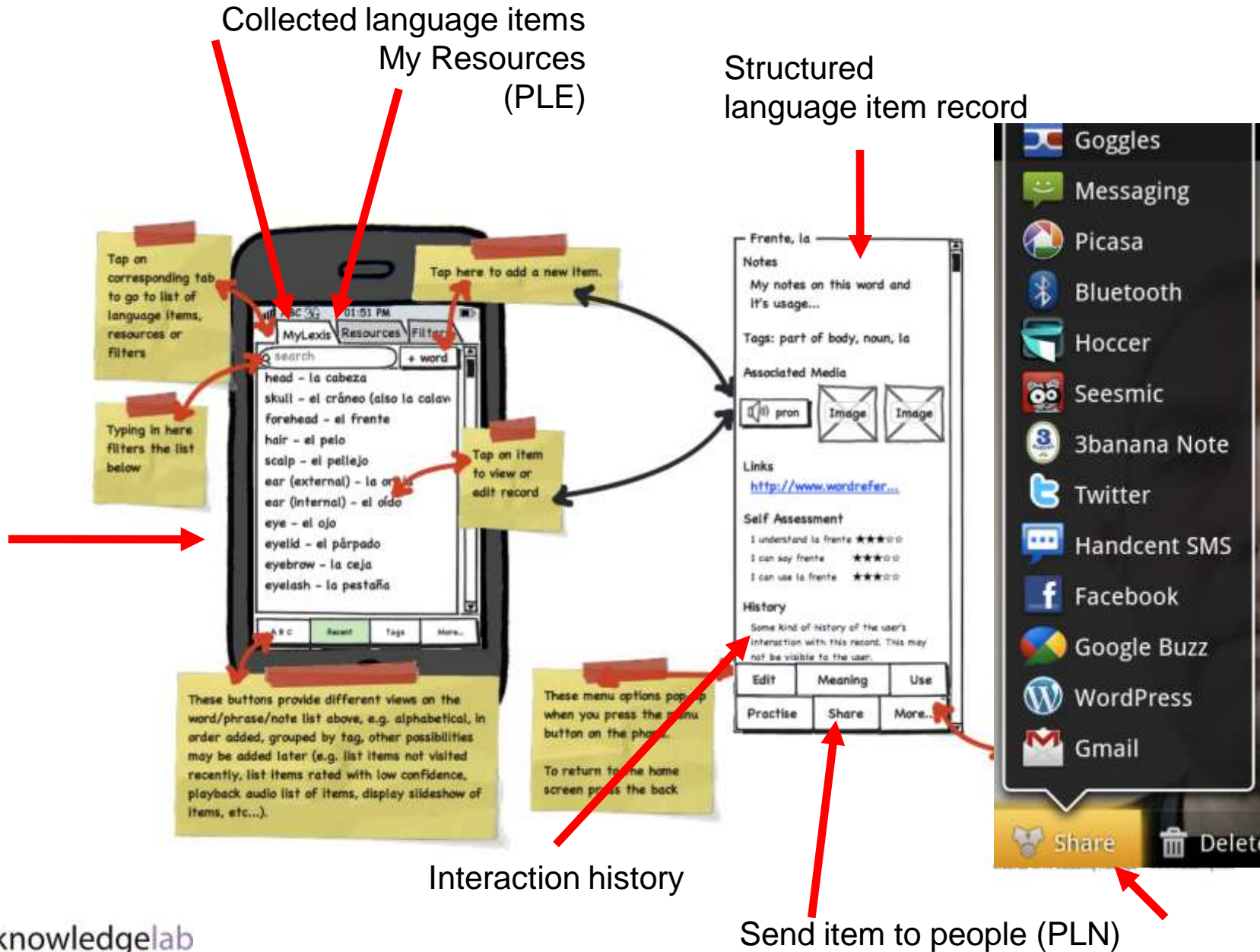
- Where are we now?
  - Access defined as access to content
- What do we need to do in the next 15 years?
  - Access as sustained and developmental learning over time
  - Mobile learning programmes co-designed with communities to address their needs
  - Balance between low-end and high-end mobiles

# Life Skills

- Where are we now?
  - Strong, scalable projects (e.g. BBC Janala)
- What do we need to do in the next 15 years?
  - Strong pedagogical design that leverages the functionality of powerful mobile technologies
  - UX skills

# miLexicon Design (Underwood et al, 2012)

Capture of language interactions & Context  
Notes, images, sounds, where & when



# Gender equality

- Where are we now?
  - Strong focus on marginalised, e.g. Women receiving Medicaid (Text4Baby, 2011)
  - Multi-sector partnerships
- What do we need to do in the next 15 years?
  - Better understanding of how poverty intersects with gendered inequalities in the lives of the most marginalised
  - Sustainable models should not depend on these communities' spending



# Learning outcomes

- Where are we now?
  - Complexities of gathering data related to determining learning outcomes (Vavoula & Sharples, 2009)
- What do we need to do in the next 15 years?
  - More research needed on associating mobile learning practices with learning outcomes
  - Collecting data that supports formative assessment
  - Will require a cultural shift (away from rote learning)

# Grand Challenges

- Build strong multi-sector partnerships
- Link mobile learning analytics to learning theory
- Train teachers in mobile learning design
- Promote mobile learning for all

# Multi-sector partnerships

- Criticism: too many pilots!
- Successes: Nokia MoMath, Text4Baby & Google SMS-Tips
- Profitability should not be a determinant of investment, quality of educational opportunity should

# Mobile learning analytics

- Driver for developing better understanding of how people learn
  - Ethical issues re: collection & analysis of large datasets
  - Methods of analysis linked to learning practices

# Teacher training in ML design

- Lack of training currently
- Training should focus on deepening teachers' understanding of the complex relationships between mobile technology, pedagogy, design and implementation

# Mobile learning for all

- Address the needs of all learning abilities
- Need interventions that address the EFA goals directly
- Equity of opportunity should not be eclipsed by a market-driven agenda
- How to cater to the learning needs of those who don't fit into a market-driven niche?
- Bring developed and developing countries' expertise & skills together for mutual benefit

# Conclusion

- Enable mobile learning for all through the equity of provision and opportunity
- Approach
  - Mobile learning as a diverse ecosystem that relies on the cooperation of various entities both public and private
  - Significantly increasing practitioner training on the design of mobile learning interventions
  - Build upon and drive future technical innovation

# Thank you!

- [n.winters@ioe.ac.uk](mailto:n.winters@ioe.ac.uk)
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