


The logo for SURF ACADEMY, featuring the word 'SURF' in white inside an orange rounded rectangle, followed by 'ACADEMY' in orange. A thin orange line connects the two shapes.

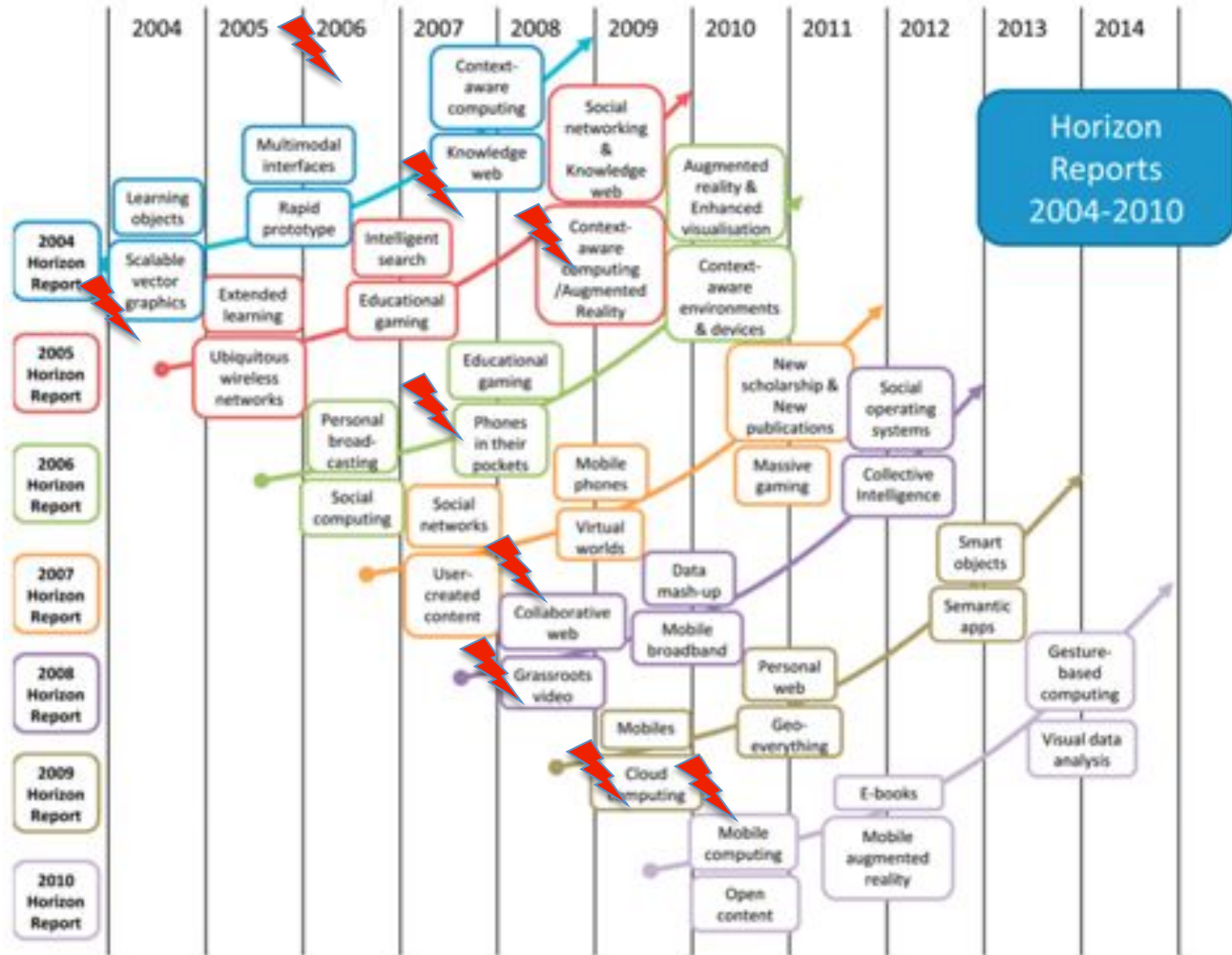
**SURF** ACADEMY

A close-up photograph of a person's hand holding a black smartphone. The background is a blurred blue-grey color.

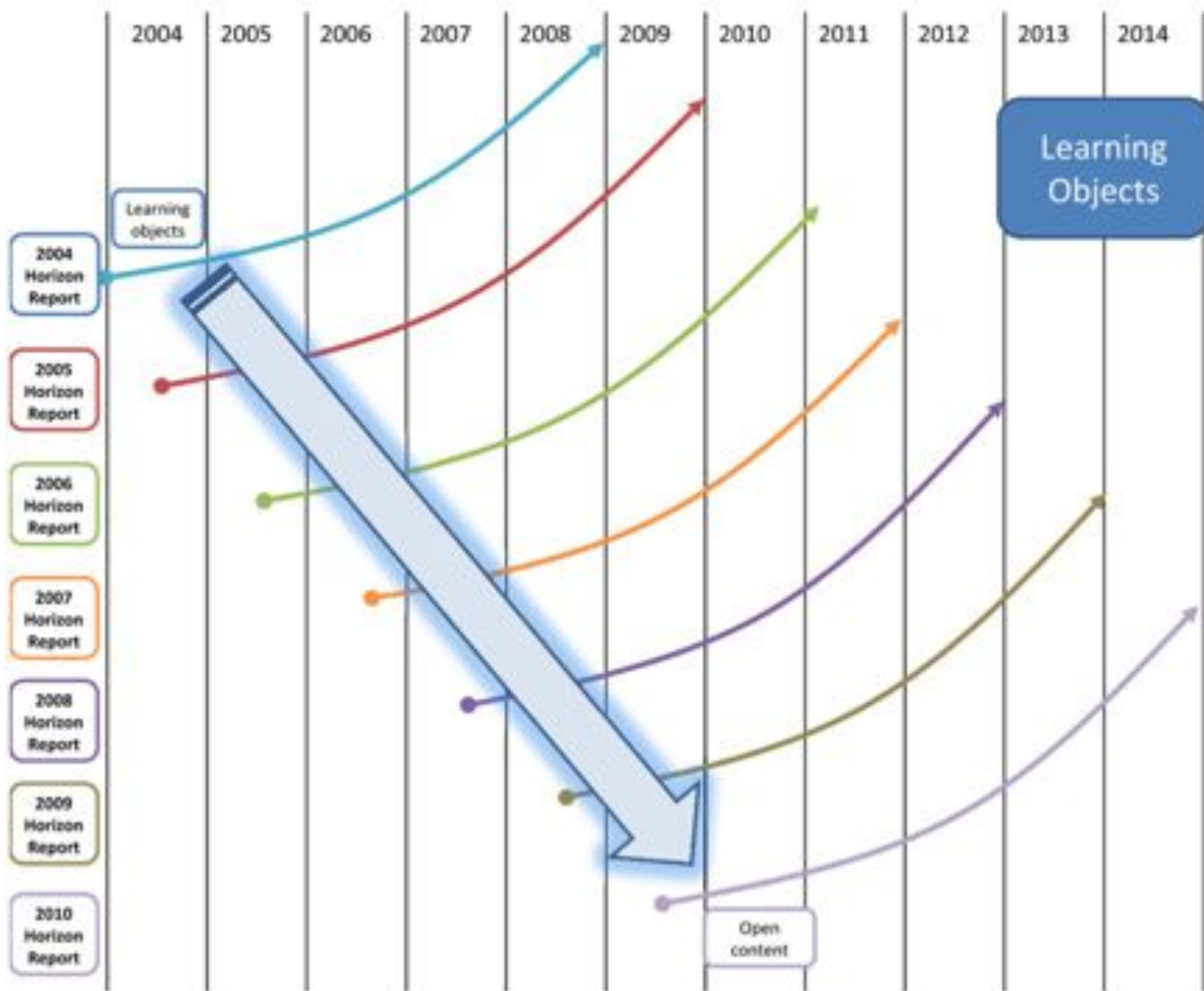
Online masterclass

**Mobiel leren in de toekomst**

# Trends relevant for content

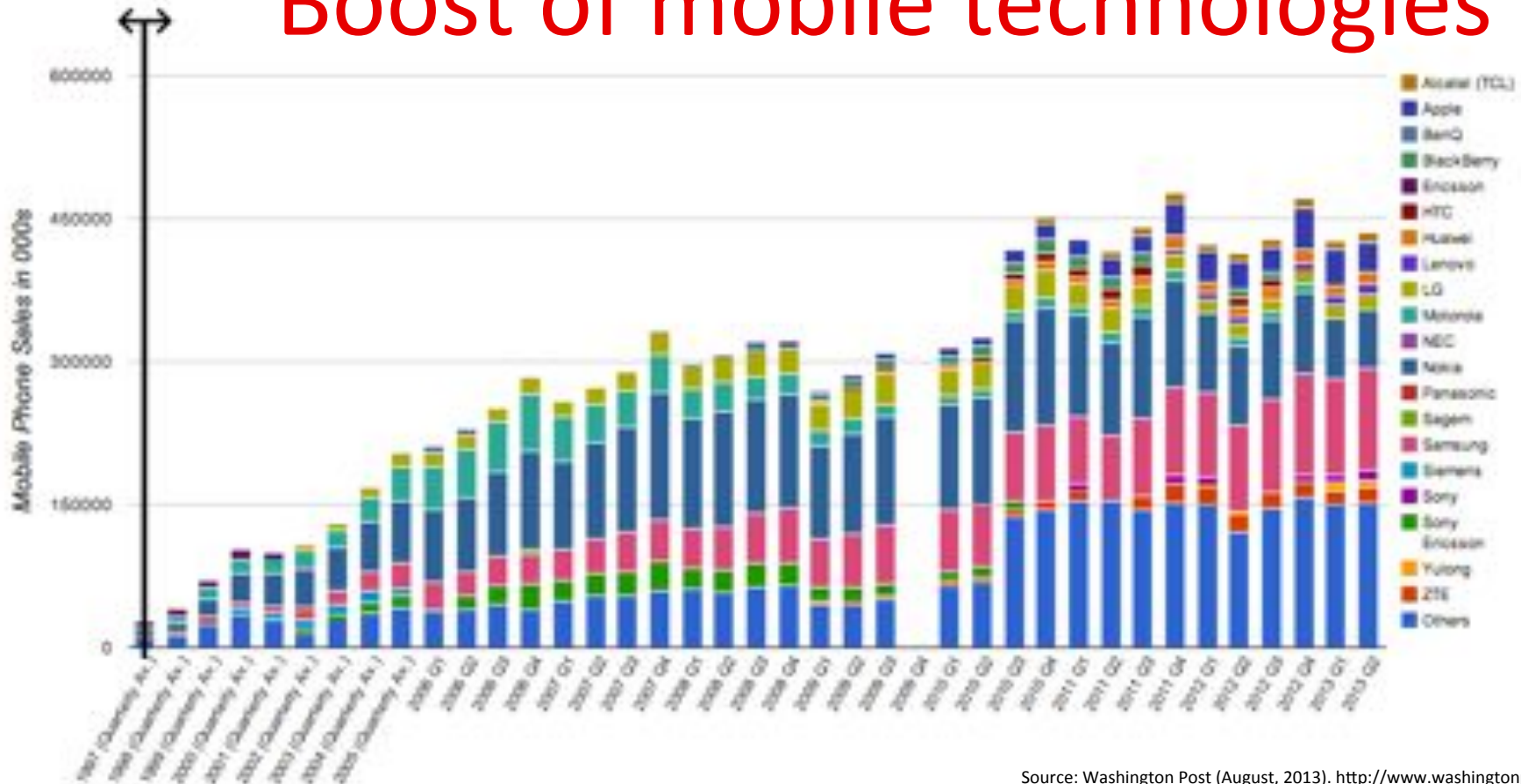


Martin, S., Diaz, G., Sancristobal, E., Gil, R., Castro, M., & Peire, J. (2011). New technology trends in education: Seven years of forecasts and convergence. *Computers & Education*, 57(3), 1893-1906.



Martin, S., Diaz, G., Sancristobal, E., Gil, R., Castro, M., & Peire, J. (2011). New technology trends in education: Seven years of forecasts and convergence. *Computers & Education*, 57(3), 1893-1906.

# Boost of mobile technologies



Source: Washington Post (August, 2013). <http://www.washingtonpost.com/blogs/the-switch/files/2013/08/Screen-Shot-2013-08-20-at-10.34.05-AM.png>

# Ubiquitous learning

	Listen	Watch	Write	Read
<b>In the living room</b>				
Having breakfast	12,24	8,16	8,84	29,24
Cleaning	37,4	1,36	0,68	2,04
Sitting in the sofa	34,01	44,89	50,34	62,58
Having lunch	11,56	10,88	8,84	20,4
During coffee/time	19,72	11,56	27,2	38,77
Watching TV, during advertisement time	12,92	15,64	32,64	47,61
<b>In my room</b>				
Waking up in the morning in bed	18,36	2,72	7,48	25,84
Getting dressed	19,72	0,68	1,36	2,04
Sitting at my desk	37,41	29,92	51,69	54,42
Lying on bed anytime	34,69	34,01	33,32	50,33

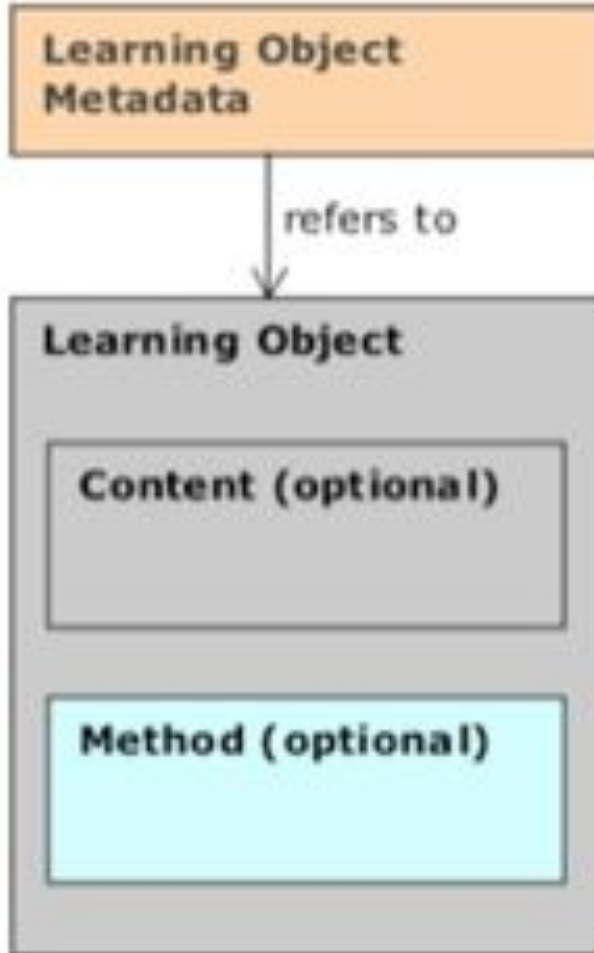
Tabuenca, B., Ternier, S., & Specht, M. (2013). Supporting lifelong learners to build personal learning ecologies in daily physical spaces. *International Journal of Mobile Learning and Organisation*, 7(3), 177-196.

	Listen	Watch	Write	Read
<b>In the living room</b>				
Having breakfast	-7.08	-5.65	9.5	5.16
Cleaning	-20.1	-0.47	-1.63	-2.11
Sitting in the sofa	-0.72	9.5	-0.82	3.28
<b>In the bathroom</b>				
Having shower	-2.49	1.16	0	1.16
Sitting on the toilet	2.95	11.83	19.22	26.13
<b>In my room</b>				
Waking up in the morning in	6.17	4.64	9.98	4.95
Getting dressed	-5.5	1.16	-3.27	0.68
Lying on bed anytime	11.67	16.11	9.33	13.2
<b>In the kitchen</b>				
Preparing breakfast	-11.85	2.05	-2.38	-0.32
Sorting groceries	-20.4	0	0.68	-5.39
Cooking	-20.32	1.58	-1.9	-8.51
<b>Waiting for someone/something</b>				
Anywhere in the street	-4.24	0.89	9.6	6.26
At the bus stop	-6.84	4.38	7.48	9.08
In a commercial center	-9.52	2.53	14.3	20.85

# **Learning objects & Mobile learning objects**



# Learning Object



Koper, R. (2001). Modeling Units of Study from a Pedagogical Perspective: the Pedagogical Meta-model behind EML. Educational Technology Expertise Centre Open University of the Netherlands.



# Learning Object

- small units of learning
- self-contained, can be taken independently
- reusable, may be used in multiple contexts for multiple purposes
- can be aggregated
- are tagged with metadata

Chitwood, K. & Bunnow, D. (2005).  
Learning Objects: Resources for  
learning. The Wisconsin Online Resource  
Center Digital Library. 18th Annual  
Conference on Distance Teaching and  
Learning

# Dimensions of Mobile Context

Mobile devices are equipped with capabilities *text editor, audio recorder, video recorder, sensors, internet access, apps, etc.* that facilitate enormously the possibilities to *create, publish, discover, acquire, access, use and re-use* of educational resources.



Specht, M. (2009). Learning in a technology enhanced world.

**Sustainable to adapt  
traditional desktop contents  
to the mobile setting?**

# Desktop to mobile adaptation



# Desktop to mobile adaptation

## Pilots and frameworks

*Su, Tseng, Lin & Chen (2011) personalized mobile content delivery based on mobile capabilities, learners, preferences, and network conditions.*

*Yang M-C. (2007) a pilot framework for aggregating and editing mobile learning materials from the existing web-based eLearning materials*

# Desktop to mobile adaptation

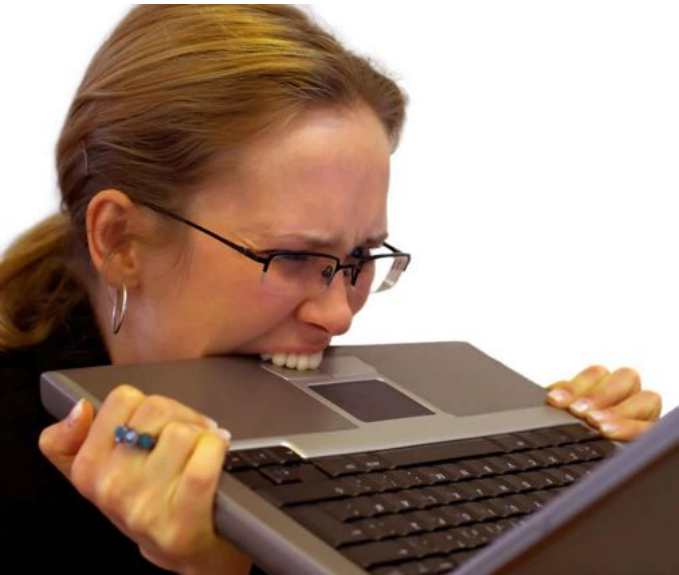
## Experiments

Bradley, Haynes, Cook, Boyle & Smith (2009)

*‘LOs were developed to tackle a series of pedagogical challenges, such as facilitating learner engagement, and aiding students in dealing with problems of abstraction and complexity. These learning objects use a number of **constructivist principles provided by rich interactive visualizations or learner controlled pacing**’*

**Is sustainable to adapt traditional  
desktop contents to the mobile setting?**

***NO***



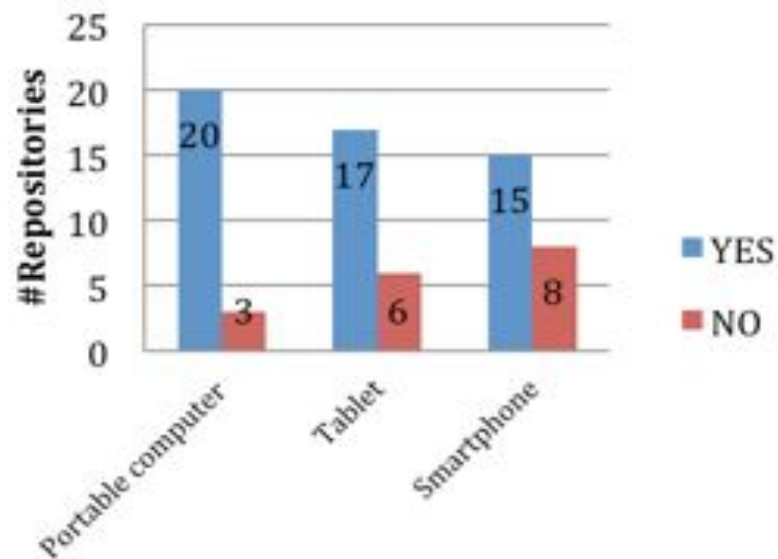


**What do content repository  
owners think about  
supporting mobile access?**

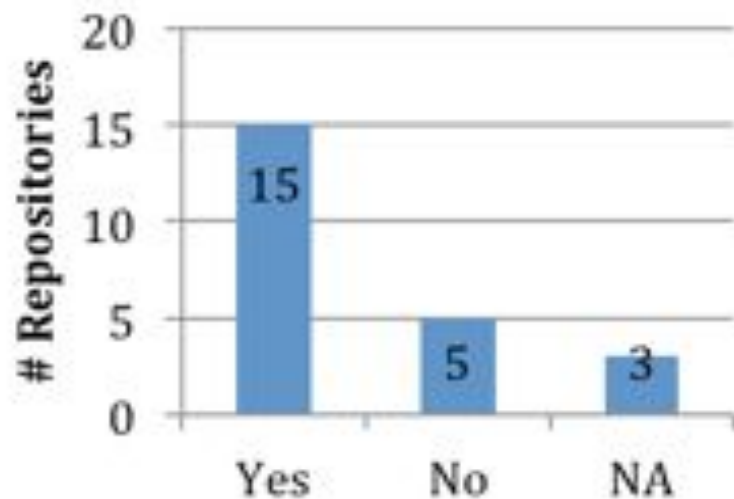
A survey to content repository  
owners on mobile usage

**1.583.000** resources

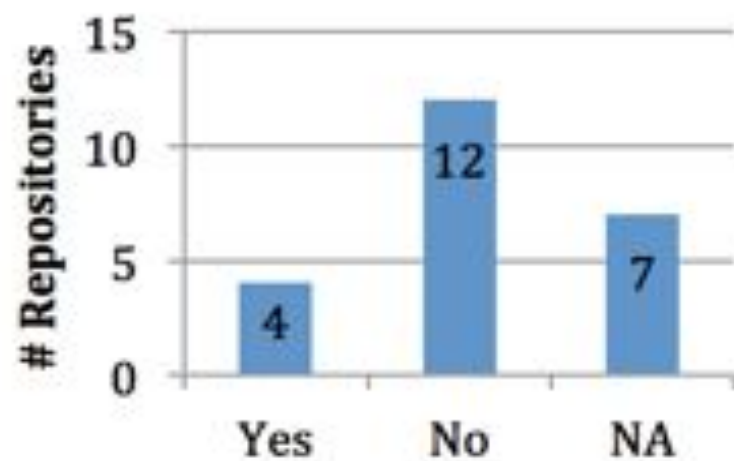
Did you prepare your repository to be accessed with different mobile devices?



Do you think an app could increase the access rates to your repository?



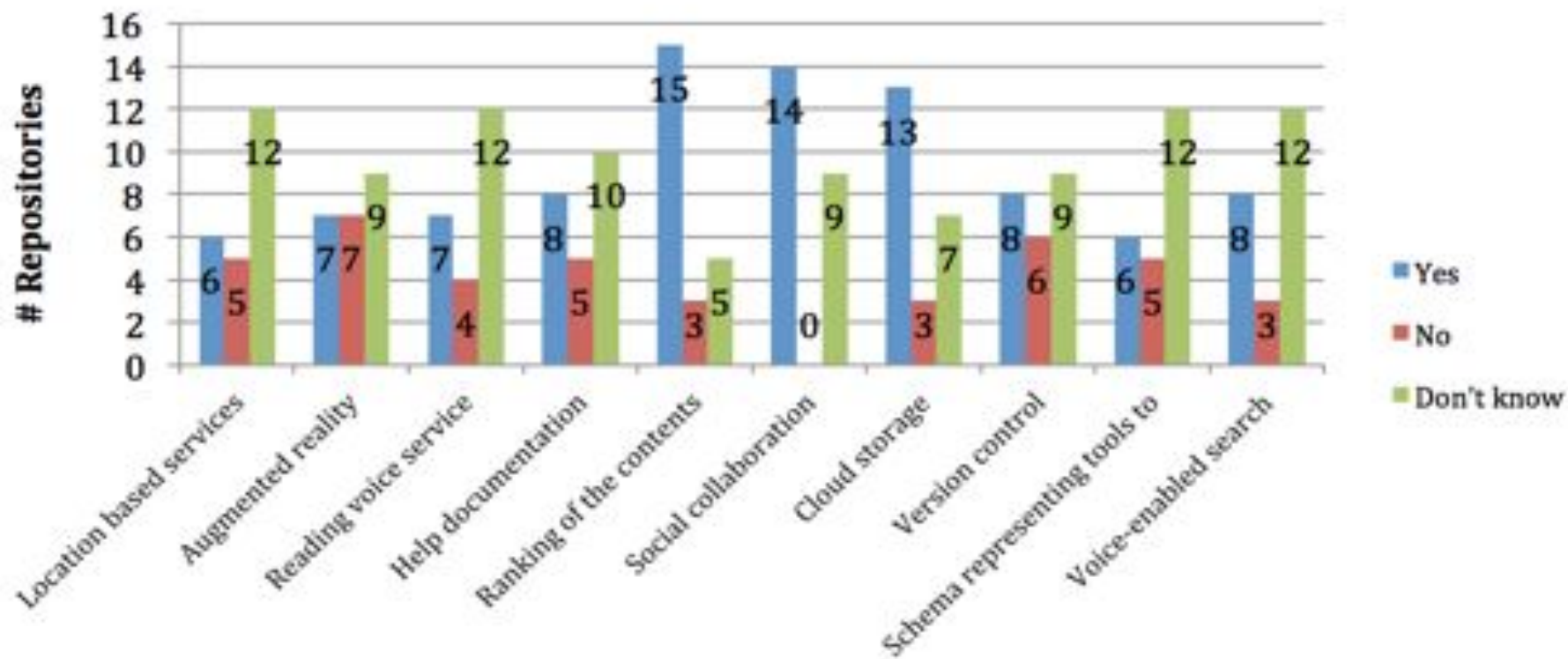
**Do you know any suitable app for accessing content repositories or open content?**



**Would you consider providing an application interface (API) for accessing to your repository from other sites and apps?**



What kind of functionalities would be beneficial to provide state of the art access to content repositories?



**What features are content repositories offering for mobile support?**



<http://www.ocwsearch.com/api>



<http://api-explorer.khanacademy.org/>



**How can we address mobile  
OER using our smartphone  
capabilities?**











Plaza del Duomo, Milano



Plaza del Duomo  
Milano  
10121









3D Car Metaphor

Mobile with  
Accelerometer

Participating  
User



# Conclusions

*repository*



- API
- Web-services
- HTML 5
- Specific type of content

*mobile client*



# Contact




**bernardo.tabuenca@ou.nl**



**@bernardtabuenca**

The logo for SURF ACADEMY features the word "SURF" in white uppercase letters inside an orange rounded rectangle, followed by the word "ACADEMY" in orange uppercase letters. A thin orange line connects the two shapes, ending in a small orange circle.

**SURF** ACADEMY

A close-up photograph of a person's hand holding a black smartphone. The hand is positioned in the center-right of the frame, with the thumb and index finger visible. The background is a blurred blue-grey color.

Online masterclass

**Mobiel leren in de toekomst**