

Workplace Education Program Development & Delivery Examples

From: Damian Boyle

Sent: December-01-16 6:06 PM

To: All McArthur River Email Users; All Key Lake Email Users

Cc: damian@northlandscollege.sk.ca;

Subject: Eldorado / OHC Training: Dec. 3 & 4 and 10 & 11 / WEP Schedule: Dec. 1 - 15

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Good Day, Every One!

The Workplace Education Program at McArthur River will be active from December 1 - 15.

Assistance is available for any learning interest: career planning, resume writing, interviewing, job search strategies, problem solving approaches, business & technical writing, presentation skills, training development, and whatever else it is that is on your mind right now.

Drop in at any time, or contact me to arrange a time for a chat.

Occupational Health Committee Training Dates: Level 1

This is a One Day Session. Choose one date only.

December 3 (Saturday), 07:30 – 18:00

December 10 (Saturday), 07:30 – 18:00

Occupational Health Committee Training Dates: Level 2

This is a One Day Session. Choose one date only.

December 4 (Sunday), 07:30 – 18:00

December 11 (Sunday), 07:30 – 18:00

OHC Training will be in MCA Camp Learning Resource Centre.

Maximum of 10 Participants for Each One Day Session.

Open to All Employers, All Supervisors, and All Workers.

First Come, First Served.

Please register by email to: Damian_Boyle@cameco.com

For Consideration:

- **OHS & Personal Well Being: Resources Database**
- **Researchers discover most winter boots are too slippery to walk safely on icy surfaces**

With the help of WinterLab, an underground, state-of-the art research facility located at Toronto Rehab, researchers have tested the slip resistance of 98 winter boots, including both safety and casual footwear. The results have been published on <http://www.ratemytreads.com> - with only eight per cent of the 98 different types of footwear meeting the minimum slip resistance standards set out by the MAA [Maximum Achievable Angle] test.

- **After-hours email expectations negatively impact employee well-being**
Earlier this year [2016], France passed a labor reform law that banned checking emails on weekends. New research ... suggests other countries might do well to follow suit, for the sake of employee health and productivity.
- **Learning from Failure: Pattern Causes of Fatal Incidents in Mines** (Mechanical Engineering Safety Seminar, 3 August 2016)



Serra Pelada Gold Mine, Brazil, c. 1988

Up to 100,000 diggers. All manual labour. 400m deep pit. Largest nugget declared: 6.8 kg.

El Dorado: The truth behind the myth

The dream of El Dorado, a lost city of gold, led many a conquistador on a fruitless trek into the rainforests and mountains of South America. But it was all wishful thinking. The "golden one" was actually not a place but a person - as recent archaeological research confirms.

The Eldorado Radium Silver Express (J.E. Arsenault, 2005)

Eldorado Gold Mines Limited was incorporated in 1926 but with the doubtful value of its claims associated with its mine at Long Lake, Manitoba, and the discovery in 1930 of pitchblende (uranium oxide) at Great Bear Lake, Northwest Territories, the company changed direction completely. The point of land where the discovery was made by the company's Managing Director, **Gilbert A. LaBine** (1890-1977), became known as **Port Radium**. The ore consisted of both uranium oxide and silver in significant amounts. At the time, the mining economies were driven by the world price of radium, which was extracted from uranium oxide and sold on the world market for US\$ 50,000 per gram or, taking inflation into account, about US\$ 500,000 today.



Pendant found in Tutankhamun's tomb, with gemstone of desert glass.

Precious stones and metals played an important in Ancient Egypt. Already in 3200 BC professional geological prospectors, called "*sementi*", searched for deposits and veins, mostly of gold.

The Gold of Sakdrisi. Man's first gold mining enterprise.

[At more than 5000 years old, this is the oldest known underground hard-rock gold mine in the world.] ... if one looks to the general estimate of an annual yield of 1 kg of gold, one would estimate the need for 16 workers to produce this amount within 330 working days with eight hours of permanent work.

- Question: Does this estimated rate of production seem reasonable, given the technology of the time?

- **Question: Given the labour costs suggested above, what would have been the approximate price per ounce of gold at that time, in today's dollars?**

The development and evolution of the William Smith 1815 geological map from a digital perspective

The first stage in the triangulation was the measurement of an accurate baseline between Kings Arbour (now the site of the Heathrow Airport car park) and the Poor House at Hampton. This was first achieved by iron bars and deal rods and then remeasured using glass tubes. Corrections were made for temperature and humidity and the line accurately leveled; the final accuracy is estimated at an amazing one inch in 27,400 ft. [1 inch in 328,800 inches.]

Smith's interest in representing geology in three dimensions can be traced back to his early career as a mine surveyor.

Maps & Learning

If you like maps, check these out.

Eldorado (Edgar Allan Poe, interpreted by Donovan)

Wishing you a golden day: safe, productive, and enjoyable.

Yours,

Damian

T. Damian Boyle
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Canada

Telephone: (306) 633 - 2001 (x8881)

From: Damian Boyle
Sent: January-31-16 4:50 PM
To: Dan <@Cameco.com>
Cc: Elaine <@cameco.com>; Ryan <@cameco.com>; Rick <@cameco.com>;
Chandra@northlandscollege.sk.ca; william@northlandscollege.sk.ca; toby@northlandscollege.sk.ca;
damian@northlandscollege.sk.ca
Subject: WEP Services at Key Lake: Considerations

Dan,

Thanks for your query about Workplace Education Program services at Key Lake.

To assist with future discussions around this, by Cameco MCA, Cameco KL, and Northlands College, I am sharing some information and thoughts here as starting points for consideration. I have embedded links for some items, which are underlined.

The McArthur River Operation Surface Lease Agreement articulates commitments by both Cameco and the Government of Saskatchewan to educational development, in addition to job training.

11.4

The Government of Saskatchewan shall use its best efforts to provide basic education and literacy training which will make the transfer of skill on-the-job more effective, and the Lessee will cooperate with the Government of Saskatchewan in this regard, where practicable. ...

The McArthur River Operation Human Resource Development Agreement with the Government of Saskatchewan repeats the statement above, and adds:

4.2

The Minister shall make the curriculum development and instructional material resources of the Saskatchewan Post-Secondary Education and Skills Training, Northern Office available to the Operator, to the extent practicable, to provide the Operator assistance in the design or delivery of any of the Operator's training programs related to the McArthur River Operation.

Further to the general intentions outlined in the founding articles above, below are examples of activities that I see as appropriately consistent with these – where an integrated approach to workforce essential skills development is assumed.

- **Learning Resources Distribution to both MCA and KL Sites. (Contractor E-mails addresses required. Cameco U-Share also.)**
- **Telephone & Email Access for Consultations, for All MCA and KL Workers. (Smartphone required if mobile.)**
- **[Plain Language Writing Skills for Business Operations](#)**
- **Training Materials Development and Delivery, & Workshop Facilitation**

- **Train the Trainer**
 - **Presentations**
 - **Classroom Instruction**
 - **Field Assessment**
 - **Substance Abuse**
 - **Respectful Workplace**
 - **Instructional Design**
 - **Evaluation of Trainers**
- **Occupational Health Committees**
- **Introduction to Industrial Supervisor (SMA)**
- **Crucial Conversations**
- **Crucial Accountability**
- **Influencer**
- **Maximizing Meetings**
- **Six Thinking Hats**
- **Change Anything**
- **National Construction Safety Officer, and Health & Safety Administrator (SCSA)**
 - **Basic Training Techniques**
 - **Claims Management**
 - **Contractor Training**
 - **Leadership for Safety Excellence**
 - **Safety Administration**
 - **Safety Auditor Training**
 - **Safety Management**
- **Prior Learning Assessments for Career Development**
 - **Apprenticeship Candidates**
 - **Operators and Trades Related Occupations**
 - **Supervisor Candidates**
- **Invigilation of SK Labour Mines Branch Certification Exams**
 - **Mine Supervisor**
 - **Blasting**
 - **Hoisting**
- **Invigilation of Certification Exams from Institutions & Industry Associations**
 - **Water Treatment & Distribution, and Wastewater Collection & Treatment (Operator Certification Board)**
 - **Canadian Welding Bureau**
 - **Power Engineer, and Refrigeration & Air Conditioning Mechanic (SAIT)**
- **WCB Return to Work Support (Office Skills Development & Materials Production)**
- **Career & Life Planning and Problem Solving**
- **Learning assistance for all Workers, at all levels.**

If utilized, the items noted above could yield significant efficiencies for all Employers operating at MCA and KL, due to:

- **timeliness of service delivery (regularly scheduled, and on demand)**
- **significantly reduced travel and associated lost productivity costs**
- **low cost relative to private contractors, as a bundled package.**

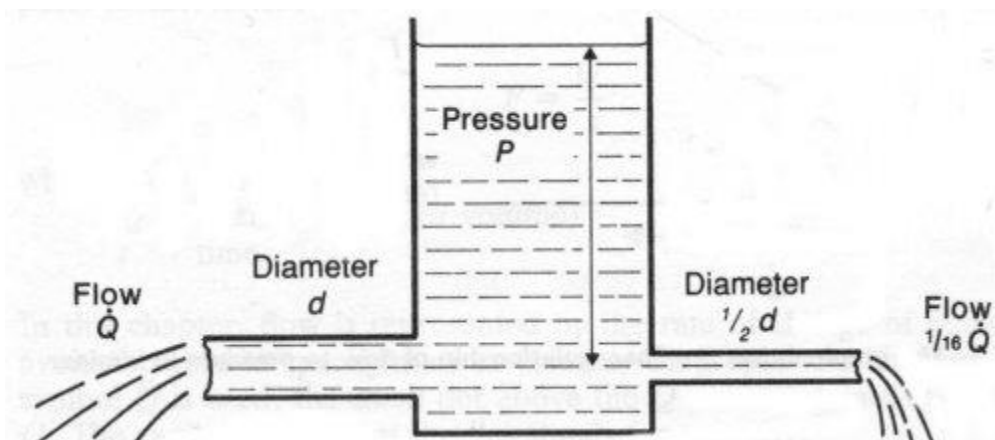
As with Mine Ventilation, however, introducing points of frictional resistance for the WEP results in increased turbulence and decreased efficiencies.

Given a constant Workplace Educator as an input, increasing the number of points of environmental variables (Personalities x Locations x Administrations x Interests) would be expected to result in significant efficiency losses. I note, for example, that Key Lake has two Camps, which increases the locational factor from a value of two to five (2x Admin/Site + 3x Camp).

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What losses of quantity and quality of output values might result from splitting the service delivery of one Workplace Educator across two such disparate Sites?

This is very difficult to ascertain due to the complexities of the many human variables at play, but the illustration below is suggestive of the anticipated results with regards to these intangibles.



“In the figure above note that the only difference is a change in the tube diameter from $1d$ to $1/2d$, but this change alters the flow rate, from $1Q$ to $1/16 Q$, a fourth power effect ($1/2 \times 1/2 \times 1/2 \times 1/2 = 1/16$).”

For my part, I see an opportunity for WEP growth and evolution in this possibility, and find the prospect of such a development as intriguing and stimulating. I believe that it would require some very careful deliberations by the various stakeholders about what balance to strike, however, to avoid a notable failure of performance.

If you would like to discuss this possibility further, I believe that the appropriate people to engage within Northlands College at this point would be:

**Chandra
Mine School Director
306.xxx.xxxx**

**William
Mine School Coordinator
306.xxx.xxxx**

I would be pleased to be part of any further discussions on the matter, to offer my thoughts based on my experiences and studies in the field.

Thanks again, Dan. I appreciate the opportunity to be involved in this project.

Yours,

Damian

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www.trainnorth.ca

From: Damian Boyle
Sent: April 1, 2015 8:12 PM
To: Colleen
Cc: William; Toby; John
Subject: Smartphone Learning Project

Colleen,

Further to my memo of March 19, I am requesting your assistance for direction to resources, organizations, and individuals that may be able to provide some suggestions about how to best effect the engagement of Workers with the Workplace Education Program at the McArthur River Mine Site. Below are my thoughts on this matter to date, along with some supporting notes and links to some pertinent information.

I work as a Workplace Educator for Northlands College, and provide learning services to about 1000 itinerant Workers at Cameco's McArthur River Mine Site, in northern Saskatchewan. This is a fly-in site, with camp accommodations and no other community or services. My estimate is that about 10% of the Workers are functionally illiterate, as they are unable to independently read and understand a WHMIS MSDS. (Further details about my work are posted on [EduNorth](#)).

I am trying to drive engagement with the Workplace Education Program by Workers during their un-paid time. Participation by 62 Workers from July of 2014 through February of 2015 was a little less than half of the average of the previous four such periods, which was 126 (62/126). Simply put, I attribute this change to the installation of cellular and internet services at McArthur River, and the adoption of smartphones by most of the Workers there (~95%).

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Proposal

An informal approach is proposed, largely because very little interest in formal learning (classes or courses) has ever been expressed at McArthur River. I look to the most excellent example of [The Foxfire Books](#) for inspiration with this. Various separate projects could be done in, perhaps in conjunction with other Northlands College programs. The information generated could perhaps be linked to [the Encyclopedia of Saskatchewan](#) or another similar project.

Projects could include:

- Developing a Geography, Geology, and Prospecting database, by photographing and geo-tagging items in the field, and then transmitting the info to the Mine School for assistance with identification, explanation, and furtherance.
- Maps can be generated by the Learner, or by groups of Learners.
- Flora and Fauna distribution and populations database. Traditional medicinal plants might be a special project.
- Literacy and Essential Skills development by doing oral histories with family and community members, including photos and videos, and compiling these for sharing and archiving.
- ??? (Your suggestions are welcome here.)

There are fewer than 60,000 Residents of Saskatchewan's North who inhabit a region of about 300,000 square kilometers, with limited infrastructure developed. (This area is about the same size as Italy, which has over 60,000,000 inhabitants and is thus about 1000x more densely populated). Education and literacy levels are low, and English is a second language for a great many.

I note that there are individuals who come to see me about setting up an email account for the first time, and that these folks are my primary audience for this project. Assistance with producing Letters and Resumes is the most often requested service presently. An outcome would be the development of a knowledge and skills portfolio that could be used for personal marketing purposes in job search and career development.

I am currently of the opinion that the Google platform would be an appropriate starting point, due to the range, simplicity, and versatility of the integrated

features offered for free. However, with other options available, I am not yet convinced that this is best way to begin. What do you think about this? What basic platform would you recommend for an engagement project of this kind?

I believe this proposal has sufficient points of coincidence with Adult Learning principles: autonomy (self-directed), relevance (purpose, past and present experiences), holistic (tangible, interactive), guidance (informal, supportive), community (participatory, situated). We already know that about 95% of the Workers at McArthur River have learned to make some use of smartphones, so bridging the knowledge gaps appears to be reasonably achievable.

I believe this project would also work well with K-12 Students in northern Saskatchewan, and would invite them to collaborate with this project as well, under the auspices of their own Instructors and Administrators.

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Notes

All Signs Point to Yes: Literacy's Impact of Workplace Health and Safety

The International Adult Literacy Survey (IALS) and its follow-up survey, the Adult Literacy and Life Skills Survey, have assessed literacy skills in Canada and other countries and ranked them on a five-point scale (where level 1 is low and level 5 is high). ... Although 58 per cent of the working-age population [in Canada] have literacy skills at level 3 or higher, 42 per cent have literacy skills at the lower two levels—skills too low to perform most jobs well.

Mobile science

Journal name:

Nature Photonics Volume: 8, Page: 745 Year published: (2014)

DOI:

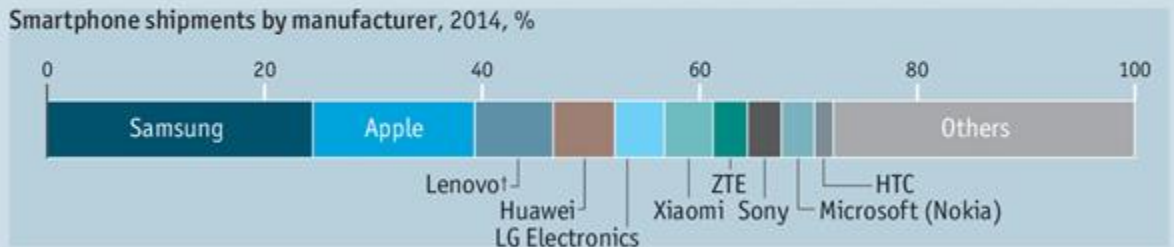
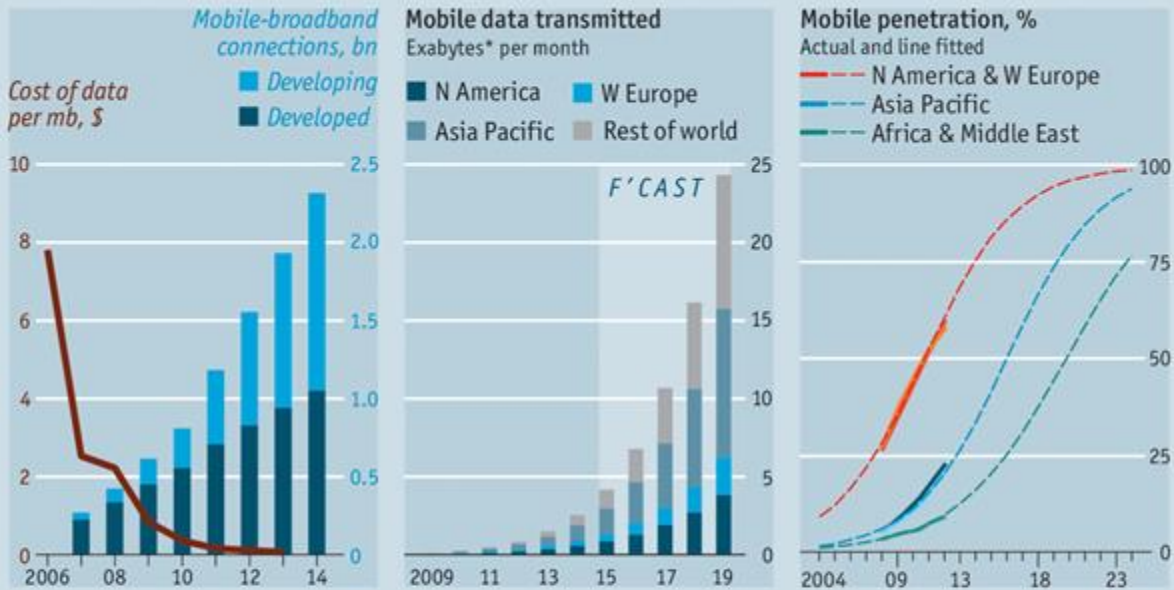
doi:10.1038/nphoton.2014.241

Published online 01 October 2014

There are nearly 7 billion mobile phone subscriptions worldwide¹ — equivalent to 95.5% of the world's population — and almost 1.5 billion of them are for smartphones².

Transformation in action

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Sources: Asymco; Boston Consulting Group; Cisco; IDC; ITU

* 1 exabyte=10¹⁸ bytes †Including Motorola

Economist.com

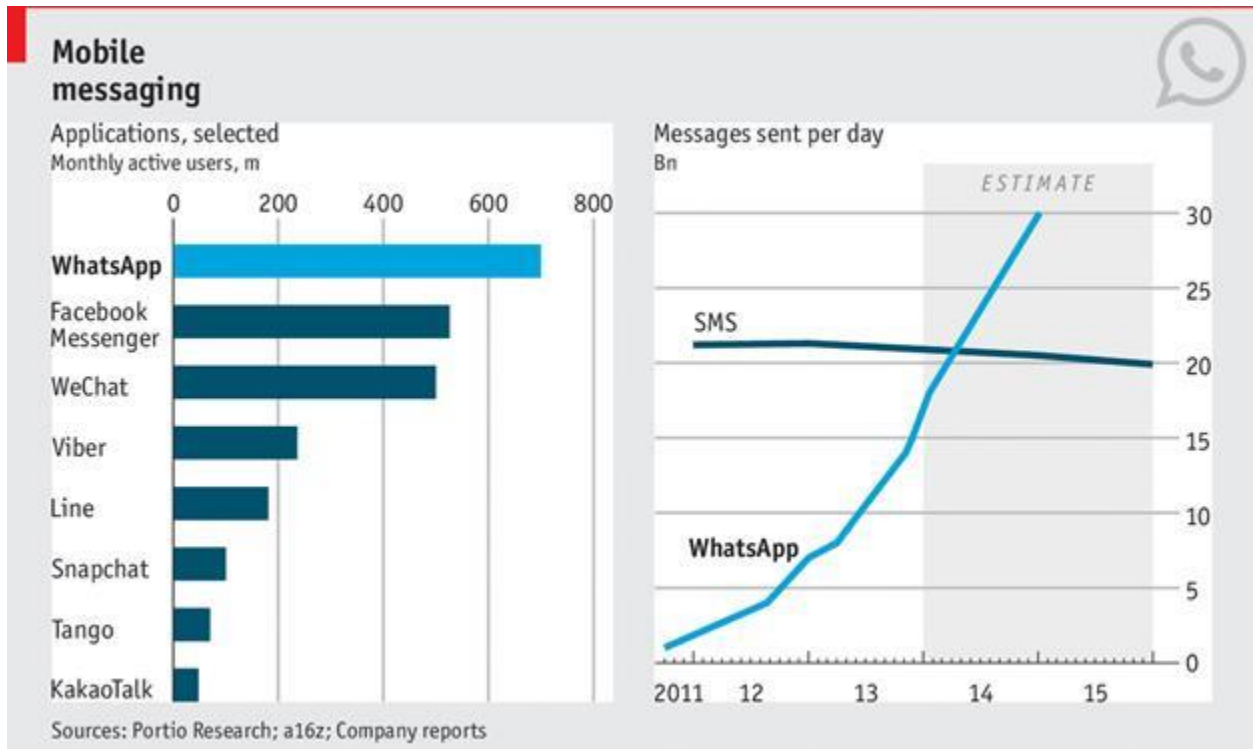
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Planet of the phones

The smartphone is ubiquitous, addictive and transformative

Feb 28th 2015

Since 2005 the cost of delivering one megabyte wirelessly has dropped from \$8 to a few cents. It is still falling.



Messaging apps

What's up?

Mar 25th 2015

Facebook, which owns WhatsApp, is expected to say that it will turn another of its apps—called Messenger—into a “platform”.

Is Messaging Going to Kill E-mail?

With new rapid-fire ways to communicate, e-mails are on the decline. But they might not be headed for extinction

Feb 17, 2015 | By David Pogue

The total volume of e-mail has dropped about 10 percent since 2010.

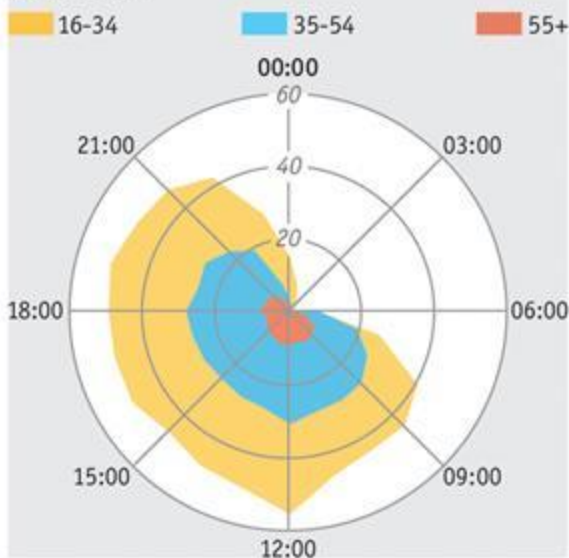
...

As of just a few years ago, among 25- to 35-year-olds, e-mail had already dropped 18 percent—and among teenagers, it was down about 60 percent.

Smartphone use

% reporting use by hour of the day, over a week*

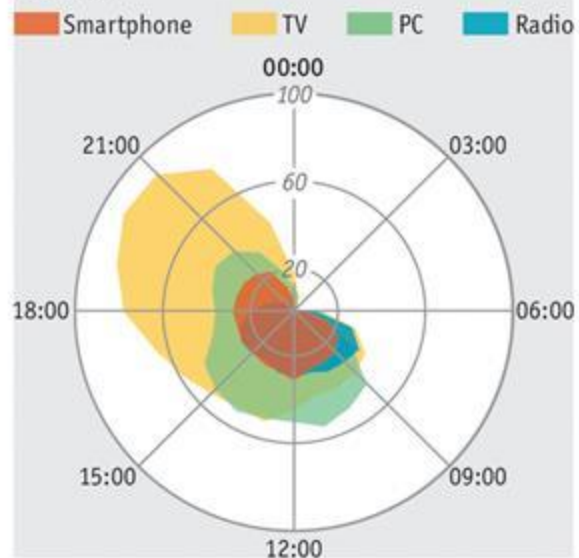
By age group



Source: Ofcom

Economist.com

By device



*1,644 British adults surveyed between February and April 2014

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Never gonna put you down

Feb 26th 2015,

In total, according to Ofcom, the British telecoms regulator, those aged between 16 to 24 years use their device nearly four hours a day; those aged between 55 to 64 only half as much.

Using to Learn - Learning to Use (Dr. Birgit Schmitz)

...By now 88% of German pupils between 12 and 19 year-olds possess a smartphone and almost 50% of them have an Internet flat rate, which use 81% of 12-19 years-olds to access the Internet on a daily basis (JIM Study, 2014). Thus, for using technology in the classroom pupils do not even rely on a stable school network. Results from the JIM Study further reveal that teens are online for 192 minutes on an average day. Computers and the Internet are used for 51 minutes per day on average as tools for school activities.

Mobile Devices & eLearning

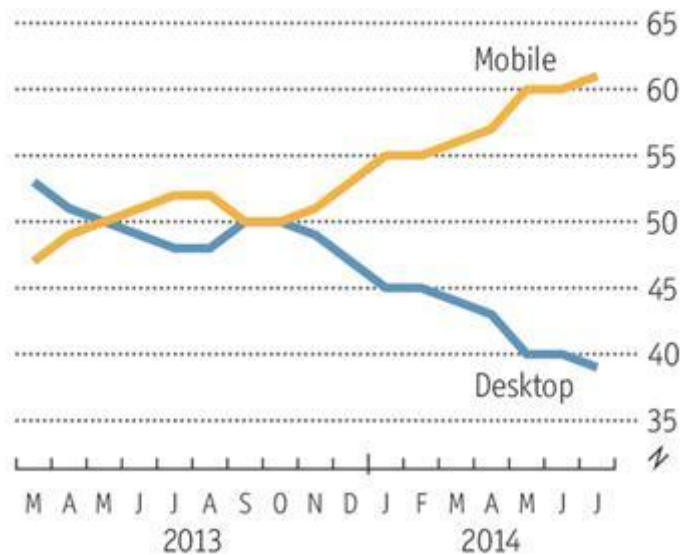
Americans [that own them] spend, on average 3.5 hours per day on a smartphone and 3 hours per day on a tablet.

...if designed properly, elearning programs can be delivered via tablets or traditional computers without the need to maintain separate versions of the program. Smartphones on the other hand often require the design and development of smartphone-specific programs.

Way to go

2

Time spent on digital media in the US, %



Source: ComScore

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Smartphones and tablets

Moving targets

What advertisers love, and what they hate, about mobile devices

Sep 13th 2014

Resources

ALADIN

Action Research (Jack Whitehead)

Advanced Distributed Learning: Mobile Learning Handbook

Ambient Information Channels (AICHE)

Canadian Network for Innovation in Education

Centre for Literacy

Canadian Social Enterprise Guide

Conference Board of Canada

CoP on Learning, Technology and Knowledge Management (ILO)

eLearning Africa

Encyclopedia of Saskatchewan

The Foxfire Books

Increasing Access through Mobile Learning

International Association for Mobile Learning (IAMLearn)

mEducation Alliance

Office of Literacy and Essential Skills (Canada)

Qualcomm: 8 Essentials for Mobile Learning Success in Education

Work-related Informal Learning: Research and Practice in the Canadian Context

Thanks very much for your time in considering all of this. Your assistance with any of this would be most helpful, and greatly appreciated.

Note: I will next be On Site at McArthur River from April 3 – 17.

Yours,

Damian

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