

The Next Broadband Challenge: Mobile

**Presentation to the Experts Workshop – The Broadband Act
of 2011: Developing a Communications Act for the 21st
Century**

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National Broadband Plan

- Goal No. 2: The US should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.
- Ensure universal access to broadband network services:
 - Create a Mobility Fund to provide targeted funding to ensure no states are lagging significantly behind the national average for 3G wireless coverage. Such 3G coverage is widely expected to be the basis for the future footprint of 4G mobile broadband networks.

‘the wireless broadband revolution’

‘the next transformation in information
technology’

Barack Obama

‘the third wave of the internet’s development’

Lawrence Summers

June 2010

fibre and the future

- the railways/roads/electricity/copper of the 21st century
 - public investment
- the 'end game' ... 'future-proof'

next generation broadband: wire vs wireless

- is service *to the home* required?
 - is *fibre* needed to do it?
- is wireless a *disruptive* technology?
- what do broadband users *want*?

Service to the home

- Some services well-suited – e.g. HD TV, large screen etc.
- In home health care
- But: 1. ‘beneficial bb services’ – ehealth, elearning delivered outside home
- 2. Can take mobile into home but not vice versa

Do we need fiber?

- Argument goes that build it and they will come, we'll figure out what to do with fibre apps
- Just need a killer app
- Long list of applications, but is this really what will develop?

What do people want?

- Australia: 40% of total bb subs are wireless
- Denmark – 2011 mobile bb will overtake fixed
- Austria – mobile considered a viable substitute
- 38% of Americans have accessed internet from a mobile device
- etc

disruptive technologies

- “bring to a market a very different value proposition than had been available previously” ...
- “generally underperform established products in mainstream markets but have other features that customers value”

Christensen, *The Innovator's Dilemma*

policy

- do governments need to act?

Lucania, Cunard Trans-Atlantic Liner, 1893-1909

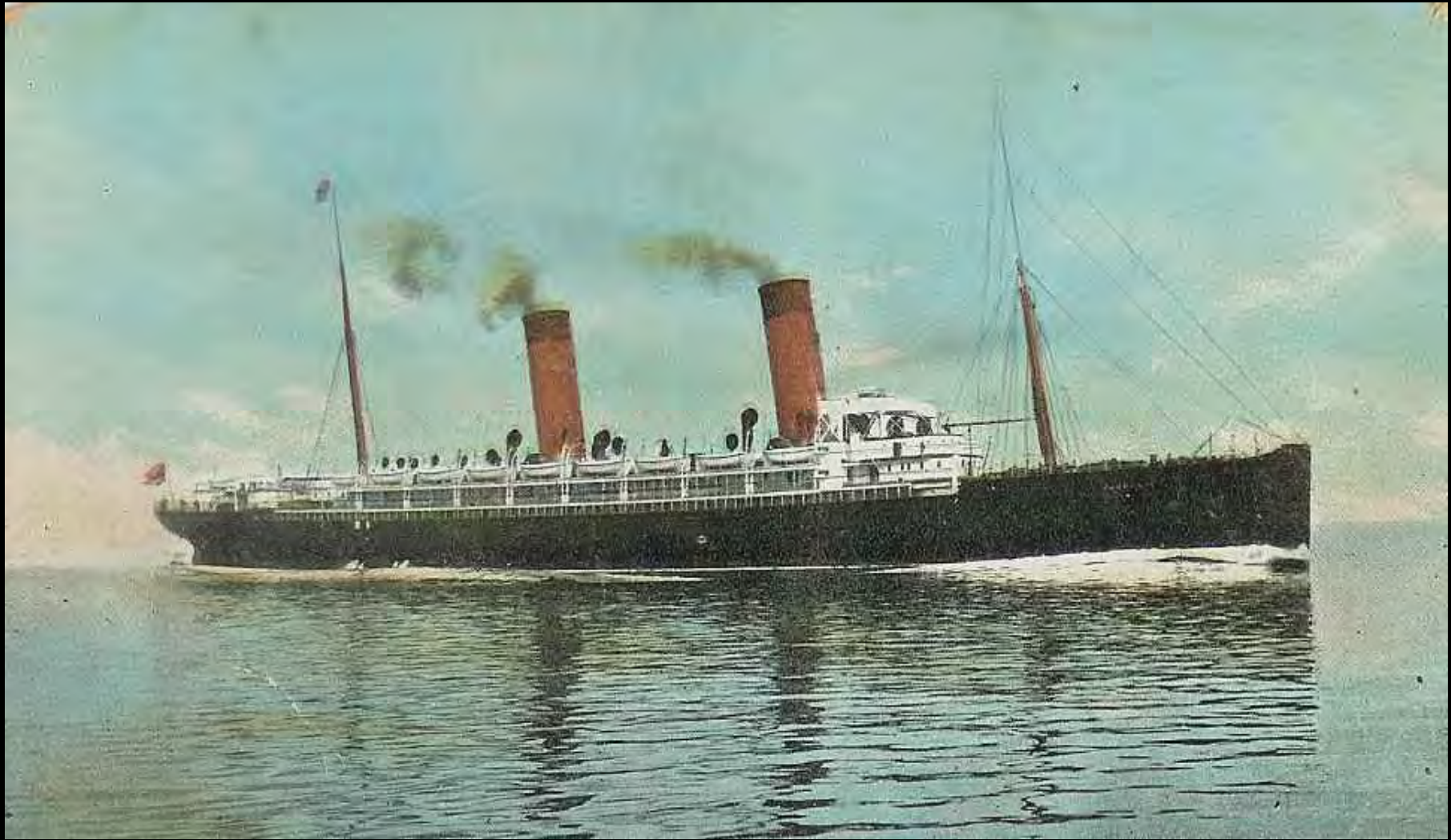


Image: Robert Soevik, www.norwayheritage.com

*The Argus,
Melbourne,
30 May 1930*

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superb
instrument !

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Radio - Piano
Phonograph

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*Image: State
Library of Victoria*

why mobile will dominate

- the history - mobile phone take-up – unique feature ... mobility
 - the present - fixed line decline
 - cost – Mobile for All, Fixed for the Rich
- areas where there will never be fixed lines

why mobile won't dominate

- capacity ... the 100 Mbps/1 Gbps home
- fiber access networks will be built and used in some places, then others ...

will anyone dominate?

- who knows?
- do governments need to act? ... now?

policy

- should mobile broadband be included in universal service obligations?
- should mobile networks be public infrastructure?
 - subsidised?
 - mandatory site-sharing? mandatory roaming?
 - open access?
- should governments [continue to] invest in fiber
 - access networks?
 - backhaul, 'middle mile' networks?

mobile politics

- fixed v wireless
- public v private
- long-term vision vs networks 2.0
 - Big vs Big Enough
- Plan for all vs Plan for those who need a plan
- analogies ... Sydney Harbour Bridge, Snowy Mountains Scheme, Overland Telegraph Line, copper customer access network, electricity

US as leader and learner

- leader: 'lead the world in mobile innovation'
 - devices: Apple iPhone and iPad, Google Android, Facebook
 - Spectrum
- analogue TV switchover and allocation of digital dividend spectrum for mobile broadband and public safety network
 - TV 'white space' spectrum
- learner
 - National Plan, co-ordination
 - open access networks