

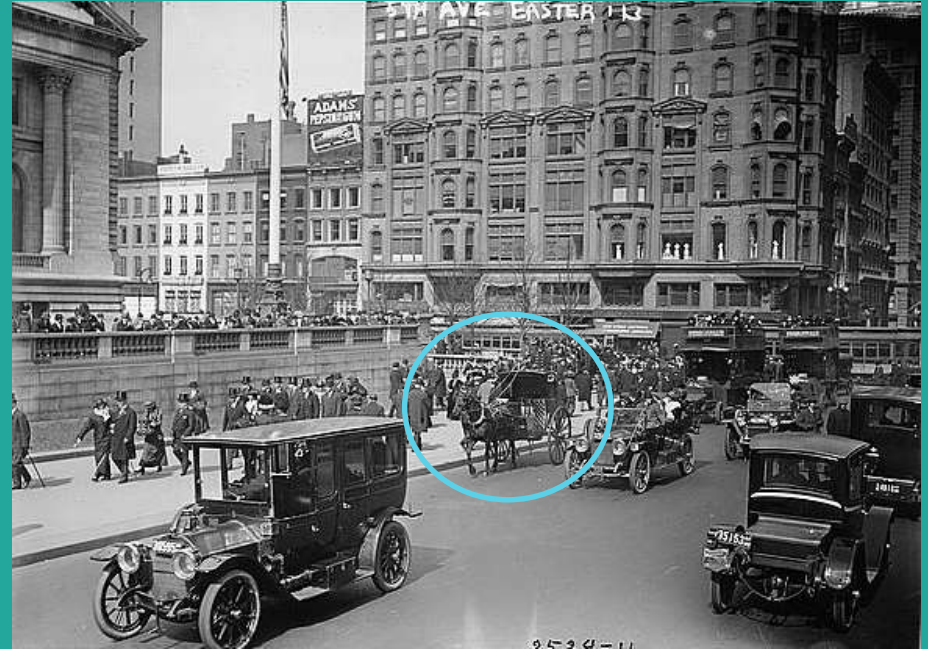
# Digitalisering som endrer alt

Håkon Haugli, administrerende direktør i Abelia, NHOs forening for kunnskaps- og teknologibedrifter.  
8. Juni 2017

New York City, 1900

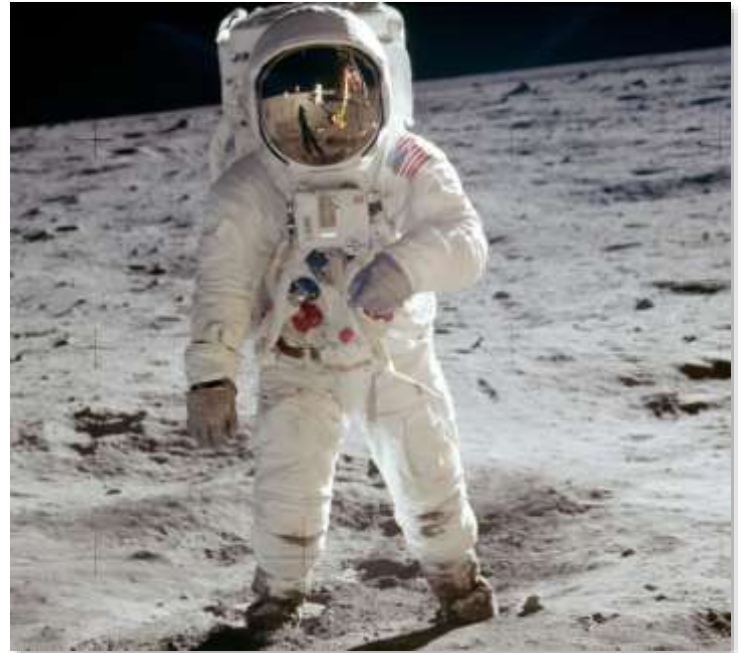


New York City, 1913



"That's one small step  
for man, one giant leap  
for mankind"

Neil Armstrong, 20. juli  
1969



# Datakraft og sammenkobling



**Paul Ledak**

7.9k Views

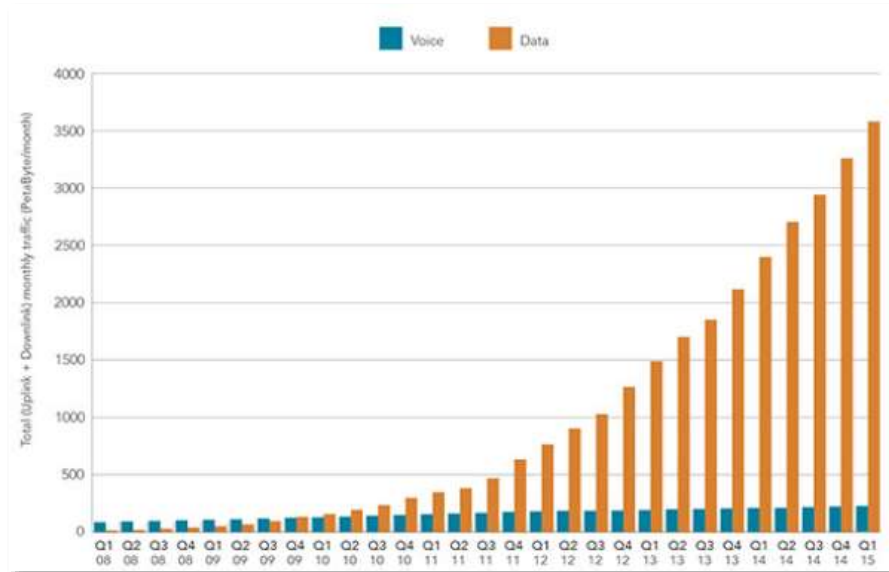
The Apollo Guidance Computer (AGC) was built of 4100 ICs, each of which was a 3 input RTL NOR gate for a total of approx 12,300 transistors. It ran at 43 KHz and could complete an instruction in 24 ms. for a total performance of about 41.6 Instructions per Second.

The iPhone 6 uses an Apple designed 64 bit Cortex A8 ARM architecture composed of approximately 1.6 billion transistors. It operates at 1.4 GHZ and can process instructions at a rate of approximately 1.2 instructions every cycle in each of its 2 cores. This results in an instruction processing performance rate of approximately  $1.4b * 1.2 * 2 = 3.36$  billion Instructions per Second. When comparing this to the Apollo computer, there is additional power consideration due to the fact that the A8 is a 64 bit processor and the AGC is 16 bit. This does not mean that it has an additional factor of 4 in performance, however, when 64 bit calculations are required, the A8 can complete these as 1 instruction and the AGC would have to perform many instructions to achieve the same result. Conservatively I would give this architectural feature and additional 50% performance advantage to the iPhone.

Therefore in comparison...

- # of transistors - iPhone has 130,000 times more than Apollo
- clock frequency - iPhone is 32,600 times faster than Apollo
- instructions per second - iPhone is 80,800,000 times faster than Apollo
- overall performance - iPhone is 120,000,000 times faster than Apollo

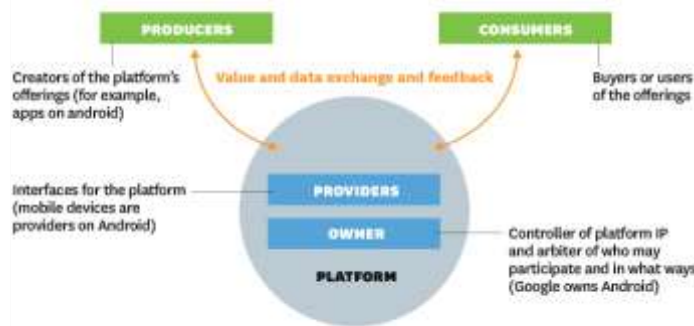
or 1 iPhone 6 could theoretically guide 120 million Apollo rockets at the same time



# Fra samleband og verdikjeder til nettverk og plattformer

## The Players in a Platform Ecosystem

A platform provides the infrastructure and rules for a marketplace that brings together producers and consumers. The players in the ecosystem fill four main roles but may shift rapidly from one role to another. Understanding the relationships both within and outside the ecosystem is central to platform strategy.



SOURCE: MARSHALL B.; SAN ALTYNE, GEOFFREY S.; RANKER, AND MANJEST PAUL CHOUDHARY FROM "PIPELINES, PLATFORMS, AND THE NEW RULES OF STRATEGY," APRIL 2010

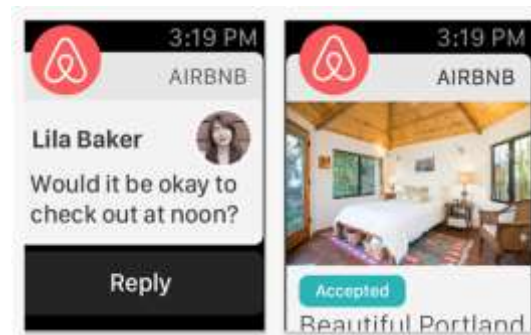
© HBR.ORG

# Digitaliseringsbølge 1: Konsumentrettede informasjonstjenester



## Digitaliseringsbølge 2: Lavteknologiske tjenestenæringer

- Når «alt» kan ordnes via mobilen, ordner «alle alt» med mobilen
- «Software eats the world» blant gründere betyr gode delingstjenester for deg
- Lavteknologiske tjenestenæringer er lavthengende frukter





## Digitaliseringsbølge 3: Etablerte industrier og industrielle B2B-tjenester







- **KOMPETANSE**
- **ATTRAKTIVITET**
- **INNOVASJON**
- **TVERRERFAGLIGHET**

# Takk for meg!

Håkon Haugli

hakon.haugli@abelia.no | @HakonHaugli