



IvLug - Ivrea Linux User Group
in collaborazione con
**Accademia dell Hardware &
Software Libero "Adriano Olivetti"**
Sono lieti di presentarvi

Linux Day 2013

Innovazione. Di tutti. Per tutti.

Sabato 26 Ottobre 2013

dalle ore 9:30 alle 18:00

Polo Formativo Universitario "Officina H"
Via Montenavale - Ivrea (TO)

Programma - Interventi dalle 9:30 alle 15:00 - confronti tecnici fino alle 18:00

- | | |
|---|---|
| 9:30 Ugo Avalle
Apertura lavori e presentazione Eventi Accademia.
Enrico Capirone ci porterà i saluti del comune di Ivrea | 11:55 Youssef Mouaddine
Ubuntu Mobile e Smart Phone |
| 10:00 Norberto Patrignani
Cloud Computing 2013: parzialmente nuvoloso.
Durante l'intervento verranno ricordati D.Ritchie e Engelbart | 12:10 Marco Bruno
Radio Abawalla, La Web Radio Creative Commons
che trasmette utilizzando Linux & software libero |
| 10:15 Dario Lesca
Presentazione di "ownCloud", la "nuvola personale".
Semplice, robusta, sicura, e... riservata | 12:30 Staff IvLug
Pausa pranzo con rinfresco, offerto
dall'Accademia Libera & IvLug |
| 10:35 Alberto Guglielmo
Crittografia e Privacy. Strumenti e comportamenti utili a
garantire la sicurezza e la riservatezza dei propri dati | 13:00 "Cic s.r.l." - "Core s.r.l." - "J.M.S. S.r.l."
La parola alle aziende del territorio che operano
nel settore del software libero |
| 11:00 Alfonso Domenici
Esperienze di HTML 5 e Web Multimediale | 14:10 Amici di IvLug
Si può fare! ... testimonianze di amici che, con
Linux e il software libero, "ce l'hanno fatta!" |
| 11:20 Luigi Capra
La programmazione in ambienti aperti | 14:50 Staff IvLug
Laboratorio Linux aperto a tutti per confronti
e condivisioni esperienze |
| 11:35 Ettore Bartocchetti
Raspberry 2013: Le novità e lo stato dell'arte | 17:30 Accademia libera & IvLug
Chiusura giornata e arrivederci a presto! |

Nel pomeriggio lo staff organizzativo IvLug e dell'Accademia Libera metteranno a disposizione del pubblico postazioni Linux per provare a utilizzare i programmi liberi e confrontarsi con esperti nel settore Linux & Open Source.

Per ulteriori chiarimenti o informazioni:
<http://ivlug.it> • <http://accademiailibera.it> • info@ivlug.it





1985: Free Software (GNU Manifesto)



Richard M. Stallman
(New York, USA, 1953 -)

Dr. Dobb's Journal of Software Tools Volume 10, Number 3, March, 1985

Ray Duncan	16-bit Software Toolbox	??
Allen I. Holub	C Chest	??
R. P. Sutherland	Of Interest	??
Michael Swaine	Editorial	??
Richard Stallman	The GNU Manifesto	30
John Malpas	Programming in Logic	36--38, 40--41
David E. Cortesi	A tour of PROLOS	44--63
Dean Schlobohm	Tax Advisor --- A Prolog Program Analyzing Income Tax Issues	64
Michael Cohen	File "Open" and "Save" Functions in C for the Macintosh in 16BST	96
Stephen Russell	CP/M Plus RSX As Fix for Bug in Random Disk Read Errors in CPME	108
Stephen King	Review of SAVVY PC Version 4.0 from Excalibur Technologies Corp	116
R. P. Sutherland	Review of \em Turing's Man: Western Culture in the Computer Age, by J. David Bolter	122

Free Software
is a matter of the
users' freedom to
run,
copy,
distribute,
study,
change and improve
the software.

"The Olivetti Programma 101 was the first computer I ever used"
Richard Stallman



1991: Linux



Linus Torvald

(Helsinki, Finland, 1969 -)

From: torva...@klaava.Helsinki.FI
(Linus Benedict Torvalds)
Newsgroups: comp.os.minix
Subject: What would you like to see most in minix?
Summary: small poll for my new operating system
Keywords: 386, preferences
Message-ID: <1991Aug25.205708.9541@klaava.Helsinki.FI>
Date: 25 Aug 91 20:57:08 GMT
Organization: University of Helsinki
Lines: 20

Hello everybody out there ...

I'm doing a (free) operating system, just a hobby, won't be big and professional ...

Linus Torvald

Towards an Hybrid Economy?

Commons & Markets

New Business Models

(Commons-based peer production)

are

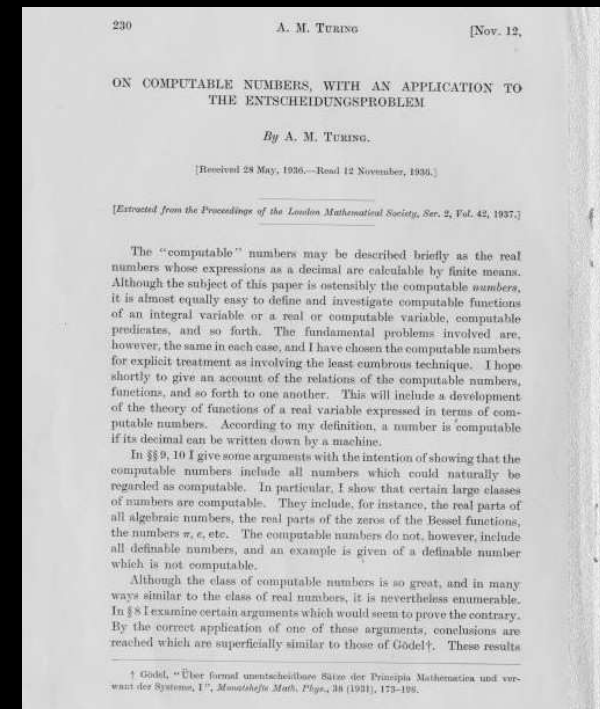
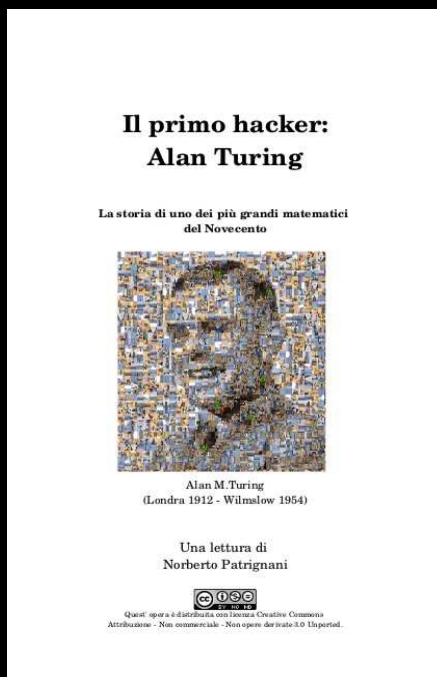
Challenging & Complementing

Classic Market institutions

1937: Turing Machine

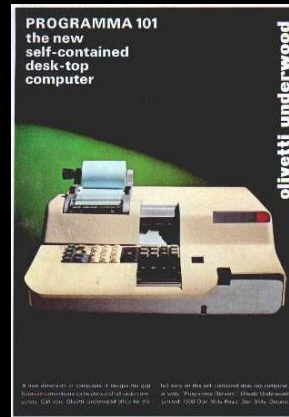


Alan Turing
(London, UK, 1912 - Wilmslow, UK, 1954)



http://www.bookliners.com/_front/it/doc/TURING-10-MARZO-2013.pdf

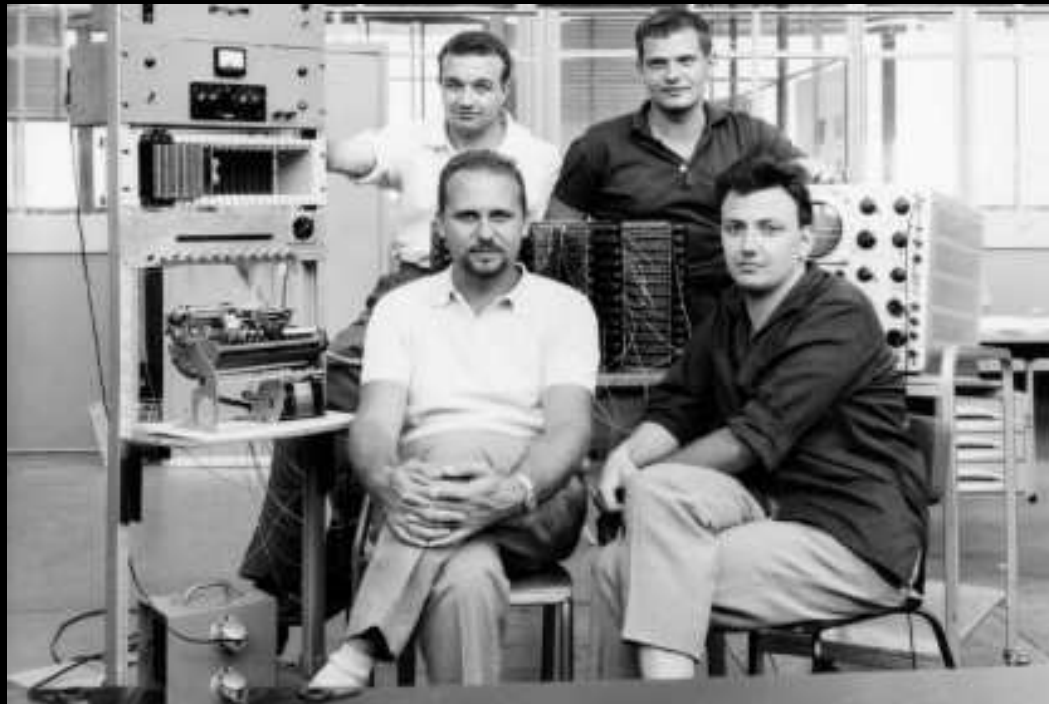
1965: the 1st Italian *bit-generation*



Gastone Garziera



Mario Bellini



1963

Olivetti P101's *dream-team*



Piergiorgio Perotto



Giovanni De Sandre



1969: Unix



Dennis Ritchie
(1941 - 2011)



Ken Thompson
(1943 -)



Bill Joy
(1954 -)

Unix's Programmer Manual 1971

```
MAN(1)                                Manual pager utils                                MAN(1)

NAME
    man - an interface to the on-line reference manuals

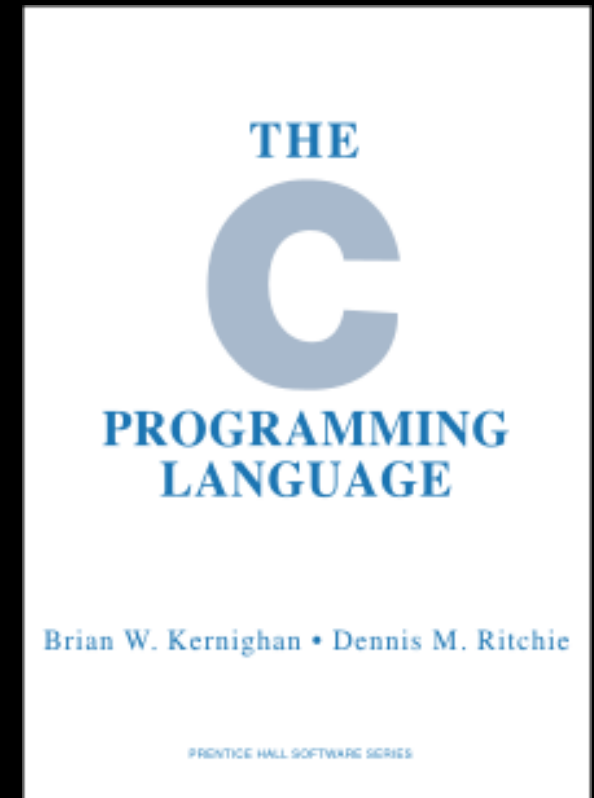
SYNOPSIS
    man [-c|-w|-tZ] [-H[browser]] [-T[device]] [-adhu7V] [-i|-I] [-m sys-
    tem[,...]] [-L locale] [-p string] [-C file] [-M path] [-P pager] [-r
    prompt] [-S list] [-e extension] [[section] page ...] ...
    man -l [-7] [-tZ] [-H[browser]] [-T[device]] [-p string] [-P pager] [-r
    prompt] file ...
    man -k [apropos options] regexp ...
    man -f [whatis options] page ...

DESCRIPTION
    man is the system's manual pager. Each page argument given to man is
    normally the name of a program, utility or function. The manual page
    associated with each of these arguments is then found and displayed. A
    section, if provided, will direct man to look only in that section of
    the manual. The default action is to search in all of the available
    sections, following a pre-defined order and to show only the first page
    found, even if page exists in several sections.

    The table below shows the section numbers of the manual followed by the
    Manual page man(1) line 1
```

Dennis Ritchie, Ken Thompson

Prentice-Hall, 1978



C Programming Language

Unix Operating System



Dennis Ritchie
(1941 - 2011)

The Evolution of Computing



1963: 1st mouse

Douglas Engelbart,
Bill English



1981: April, Xerox Star 8010

(16,595 \$)

1st Commercial WIMP
"Personal Computer"



1973: 1st WIMP

Window, Icon, Menu e Pointing
Computer
Xerox PARC



1981: August 12, PC IBM

(1,565 \$)

MS-DOS 1.0

The Mother of All Demos

The Challenges of Human-Computer Interaction



"A Research Center for Augmenting Human Intellect"

Douglas Engelbart

Fall Joint Computer Conference

9 December 1968, Brooks Hall, San Francisco



Live Demo of NLS (oN-Line System)

Computer Mouse ("*X-Y position indicator for a display system*"),

Video Conferencing, Teleconferencing, Hypertext,

Word Processing, Hypermedia, Object Addressing (IofT),

Dynamic File Linking, Revision Control,

Collaborative Real-Time Editor

The Mother of All Demos

The Challenges of Human-Computer Interaction



Douglas Engelbart
(1925 - 2013)

Internet Activist, a Creator of RSS, Is Dead at 26, Apparently a Suicide

By John Schwartz

Published: January 12, 2013

2013: January 11th, Aaron Swartz, dies



Aaron Swartz

(Chicago, 8 November 1986 - New York, 11 January 2013)

Software Developer, Writer, Hacker, Internet Activist



RSS

Rich Site Summary

RDF Site Summary

Really Simple Syndication



demandprogress.org



openlibrary.org



www.reddit.com

2010



HARVARD UNIVERSITY
Edmond J. Safran Center for Ethics

www.ethics.harvard.edu/

2009



2011



Cloud Computing 2013: Parzialmente Nuvoloso



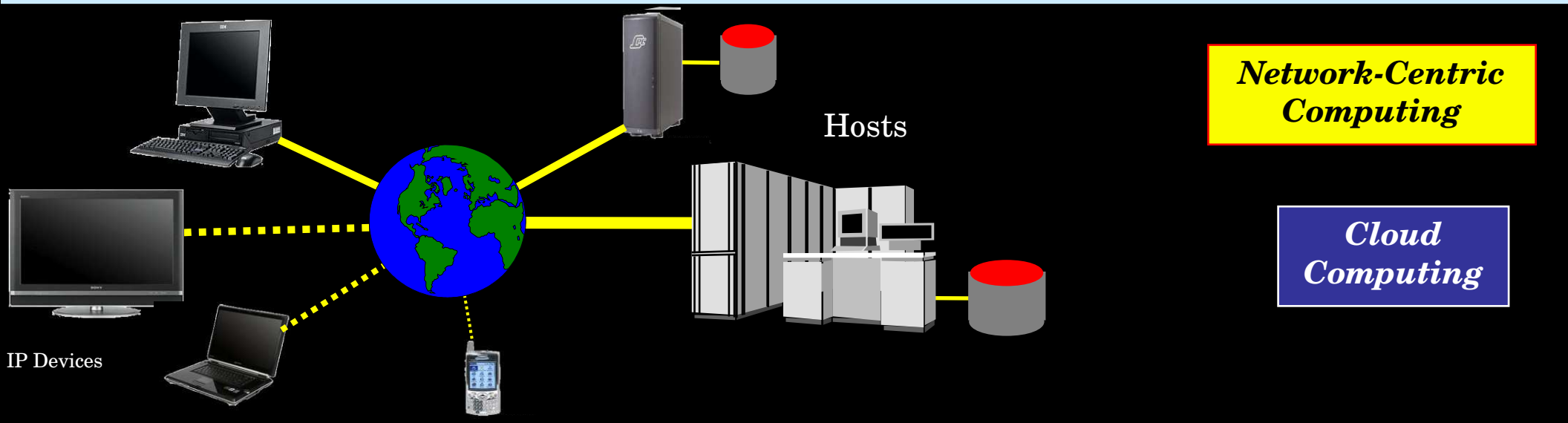
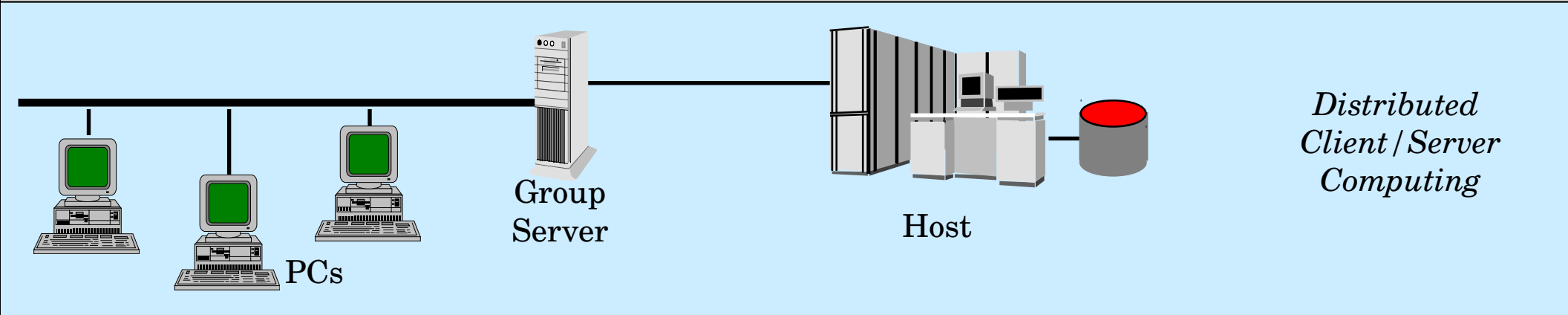
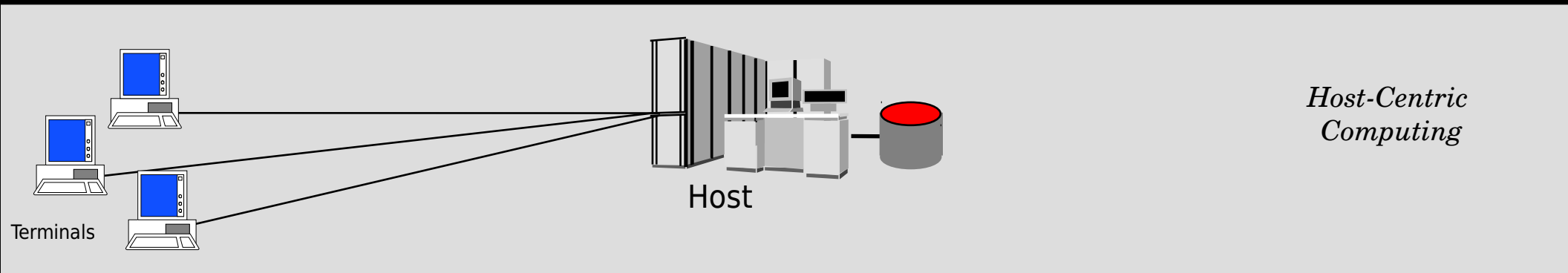
Storm on the flat land of Piemone, Italy, Photo: Michela Talon, 2013

Linux Day 2013
Polo Formativo Universitario, "Officina H"
Via Montenavale, Ivrea

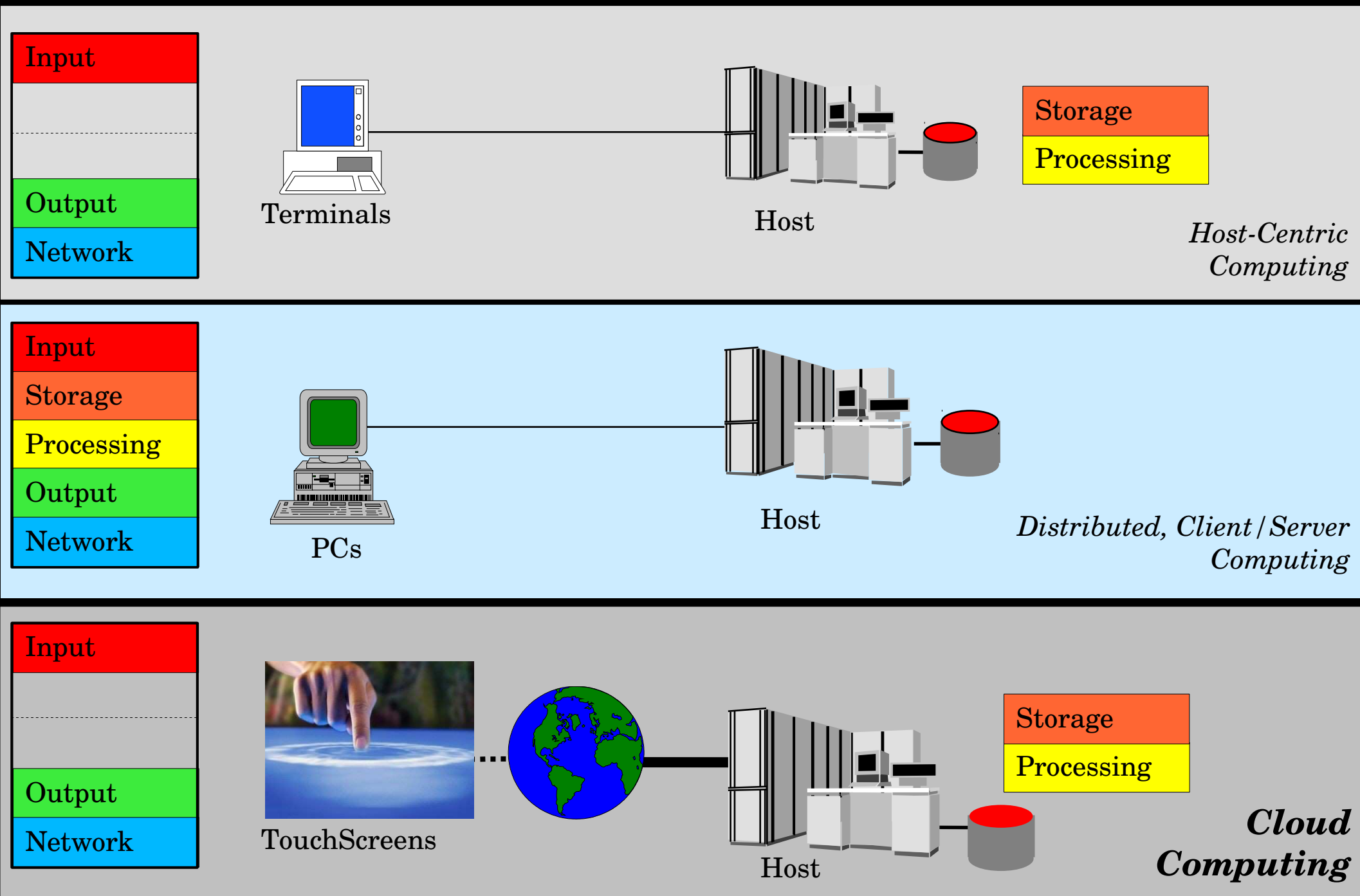
Ivrea, 26 Ottobre 02013
Norberto Patrignani

Cloud Computing: *"From Servers to Services"*

Computing Models



Cloud Computing: Back to the Future



From Autonomy to Heteronomy

We are now entering for real into the Cloud Computing era.
For many people is natural to have
just a "touchscreen" in their hands
and everything else "into the cloud"
(storage space, computing power)

In terms of architecture we are now going "back to the future"
to yet another centralized computing infrastructure
where we will lose all the freedom of "our fathers",
when they introduced the personal computing (PC)

We are going from the "autonomy" of PCs
(input, storage, processing, output and network in our hands)
to the "heteronomy" of cloud and
this is a kind of jump back to the pre-PC era
of "dumb" terminals

Services, NOT Devices



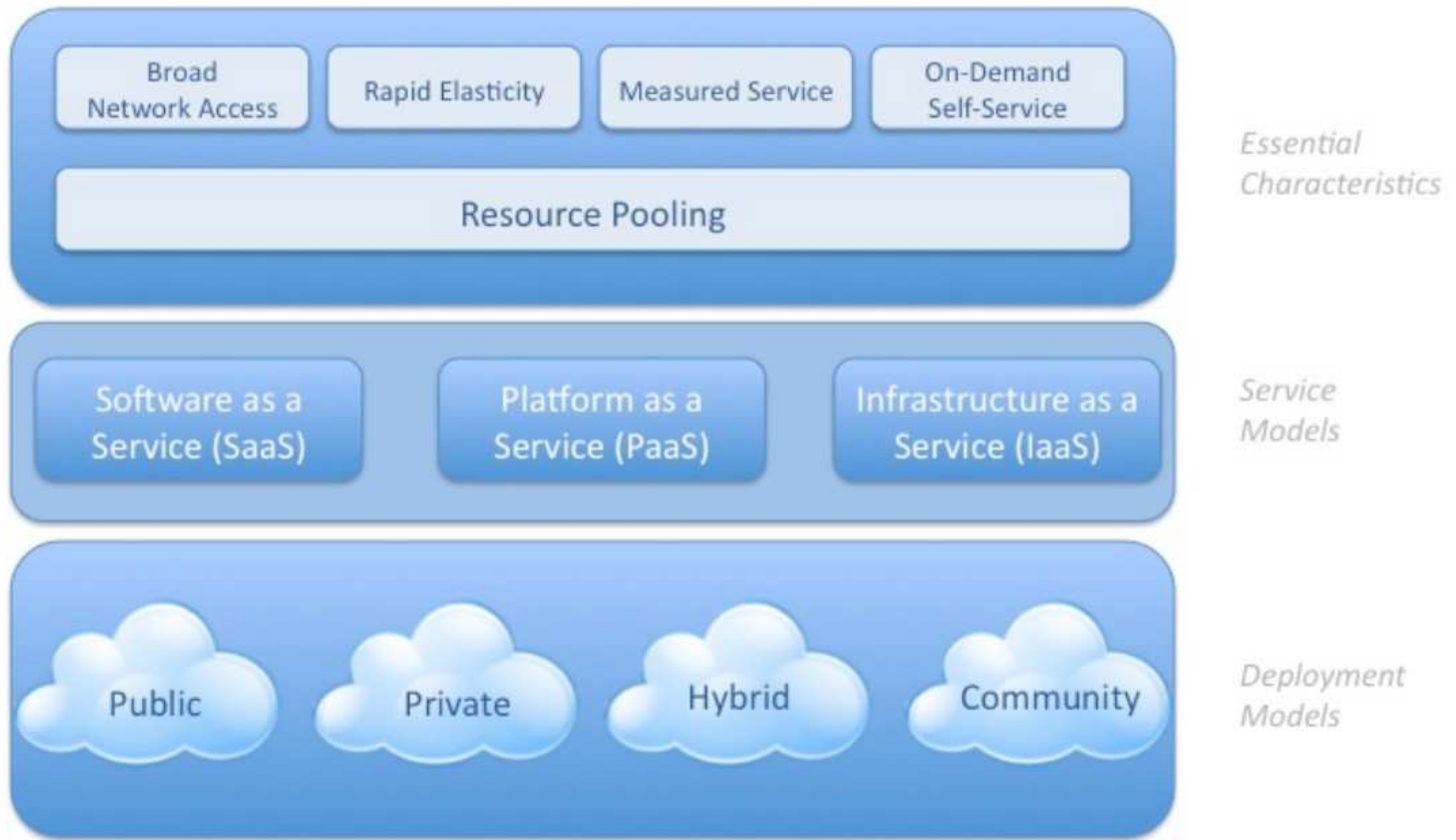
- Mobile access to (back-end) Applications drives the move to Cloud
- Every SaaS provides Mobile access
- Decrease Mobile traffic to In-House datacenter
- With Bring-Your-Own-Device (BYOD) programs, IT is losing control ...

The Kill Switch

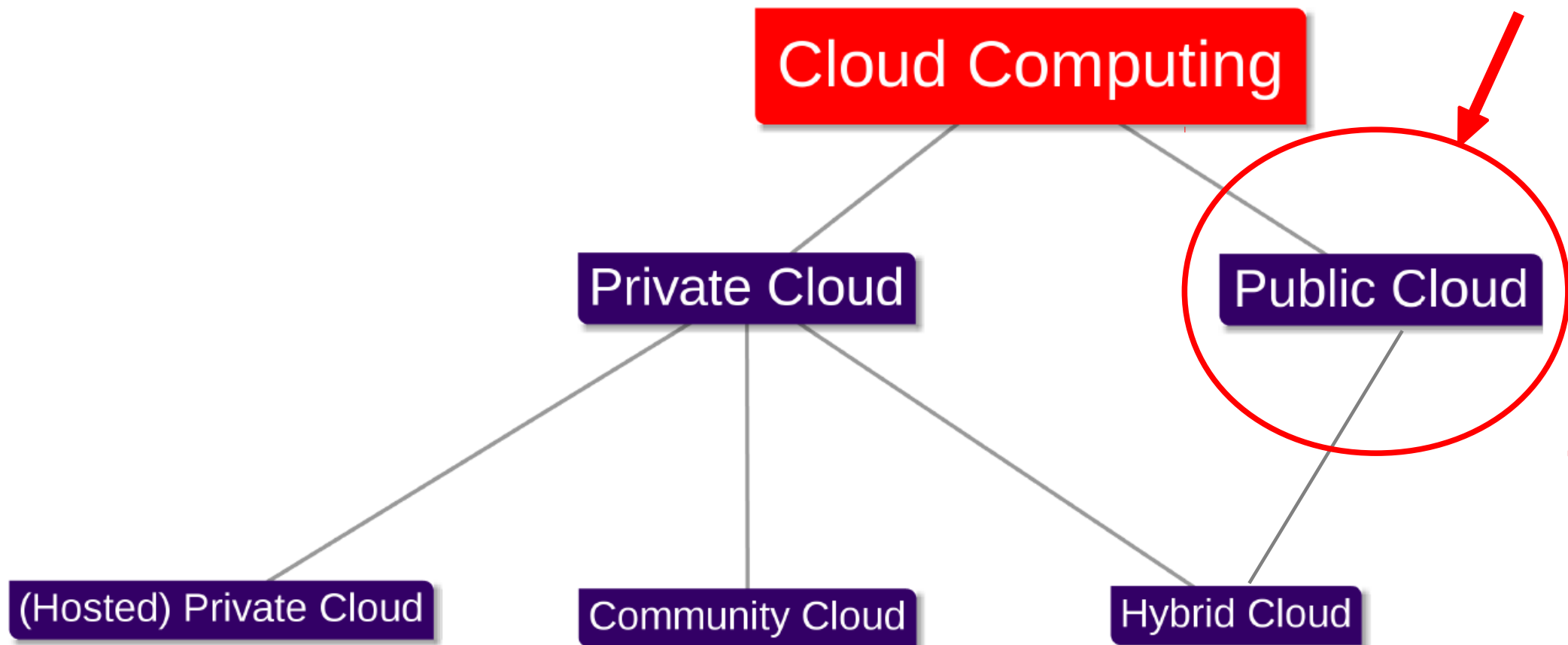


The "center of the cloud"
could even "shutdown" the machine and operating system
in the hands of the user ("the kill switch")
(Robertson, 2012).

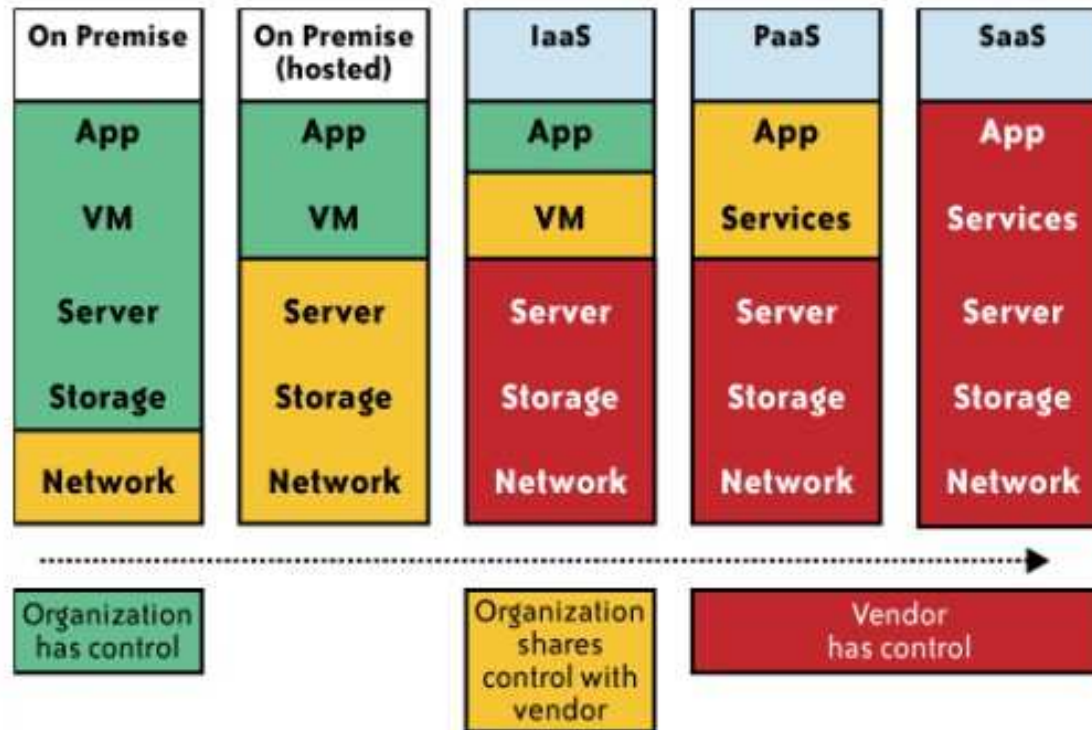
Cloud Computing Top View



Cloud Computing Deployment Models



Cloud Computing: Impact on Governance

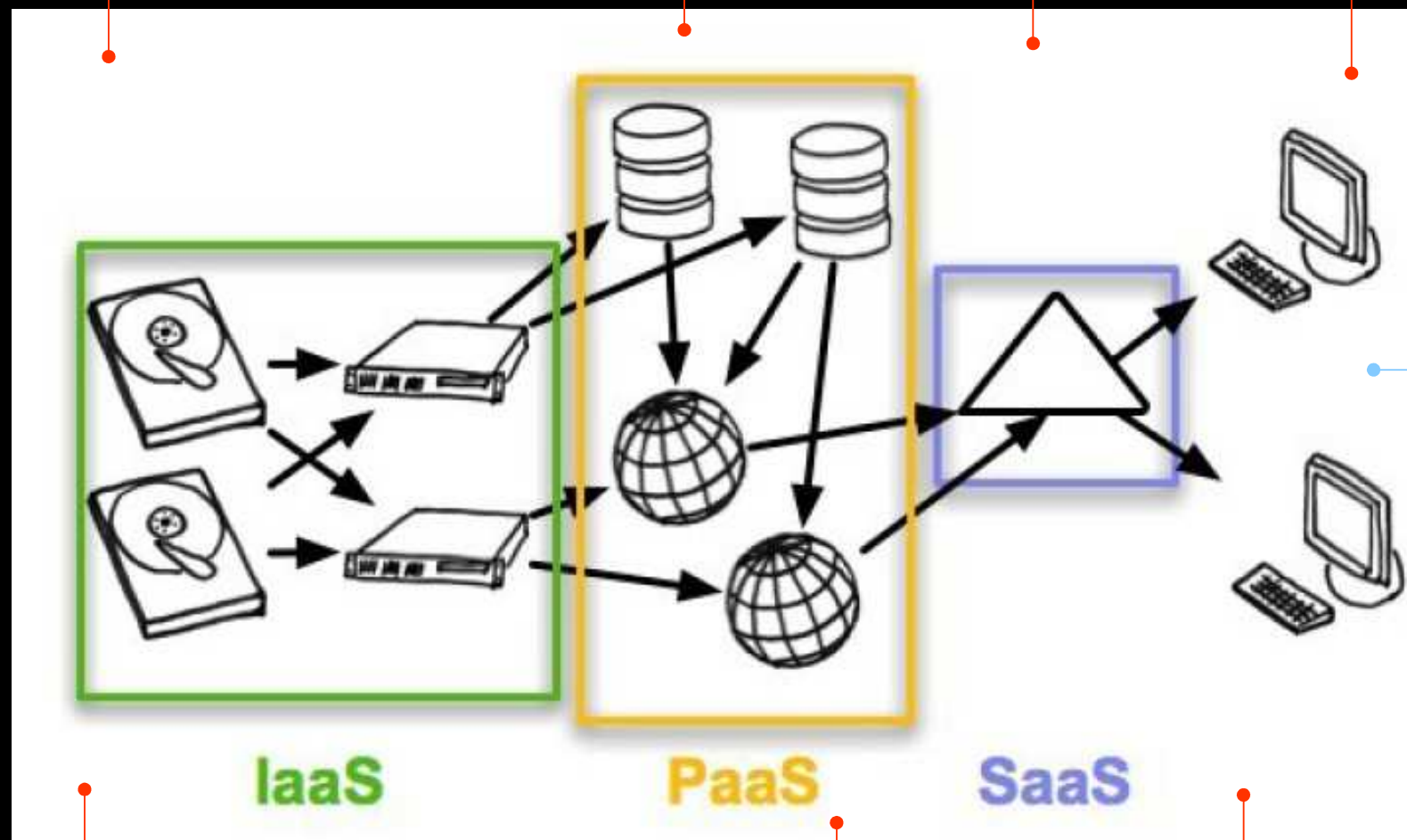


Data Location, Data Encryption,
Data Mining, Users' Profiling,
Data Loss & Leaks, Function creep

De-Perimeterisation

Cloud-brokers!
The future of IT Orgs?

Monopoly & lock-in



IT Services
from CAPEX
to OPEX
is VERY
ATTRACTIVE!

Risk-management plan(s)
Cybe-risk Insurance?

Cloud Traceability
Secure Logs: Encrypted +
Time-Stamped + Digitally
Signed

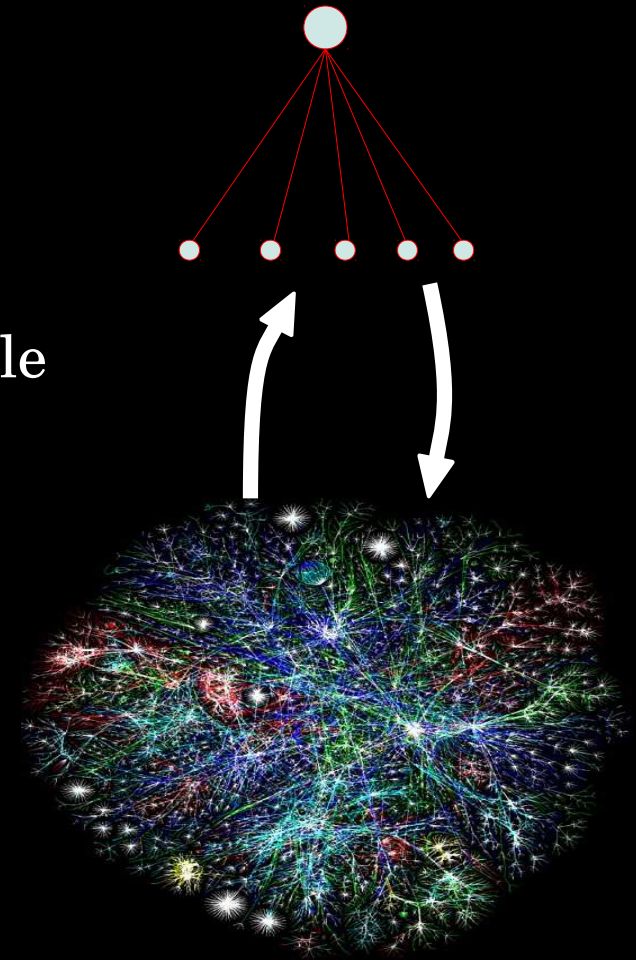
Problem of many hands
Four-hands Authorization

Power Grid → Smart Grid

Cloud Computing ← PC

The first "Critical Infrastructure",
the Old Power Grid (1841),
is Evolving towards a Smart Grid
(a Complex System, Distributed, Flexible, Reliable
and Redundant)

The new "Critical Infrastructure",
the Internet (1969),
is Evolving towards a
Centralized, Rigid and (Un)reliable System?



Politeia vs Techne

centralized

de-centralized

Nuclear Plant						Solar Power
	e-Commerce	Supermarket	Shopping Mall		Bazaar	Shop
Boeing 747					Glider	Hang-Glider
Aircraft carrier	Submarine		Ship Container	Ferry Boat		Rowing Boat
Railway	Metro				Car	Bicycle
Network Control Center	Mainframe		Server		LAN Desktop	Home PC
System Network Architecture						Internet
	Proprietary Software					Free Software
Software as Service				Server Software	LAN Software	PC Software

Cloud Computing as a Socio-Technical System

The believe that technology develops independently from society is wrong; social factors steer engineers in certain directions and influence the design of technological devices and systems; on the other direction, technology shapes society, society and technology shape each other (co-shaping); adoption of a particular technology means adoption of a particular social order; systems are infused with social and moral values (Johnson, 2009)

What kind of society will be *shaped* by this new direction of ICT?

Are we losing the status of "digital citizen"
and becoming just "digital consumer"?

Big Data



marketingarena.it

*"... At the heart of the change,
the next 20 years will be
intelligence drawn from information
Information will be the 'oil of the 21st century'.
... It will be the resource running our economy
in ways not possible in the past."*

Peter Sondergaard
Gartner Symposium/ITxpo 2010,
October 17-21, Orlando

"Knowledge is Power"

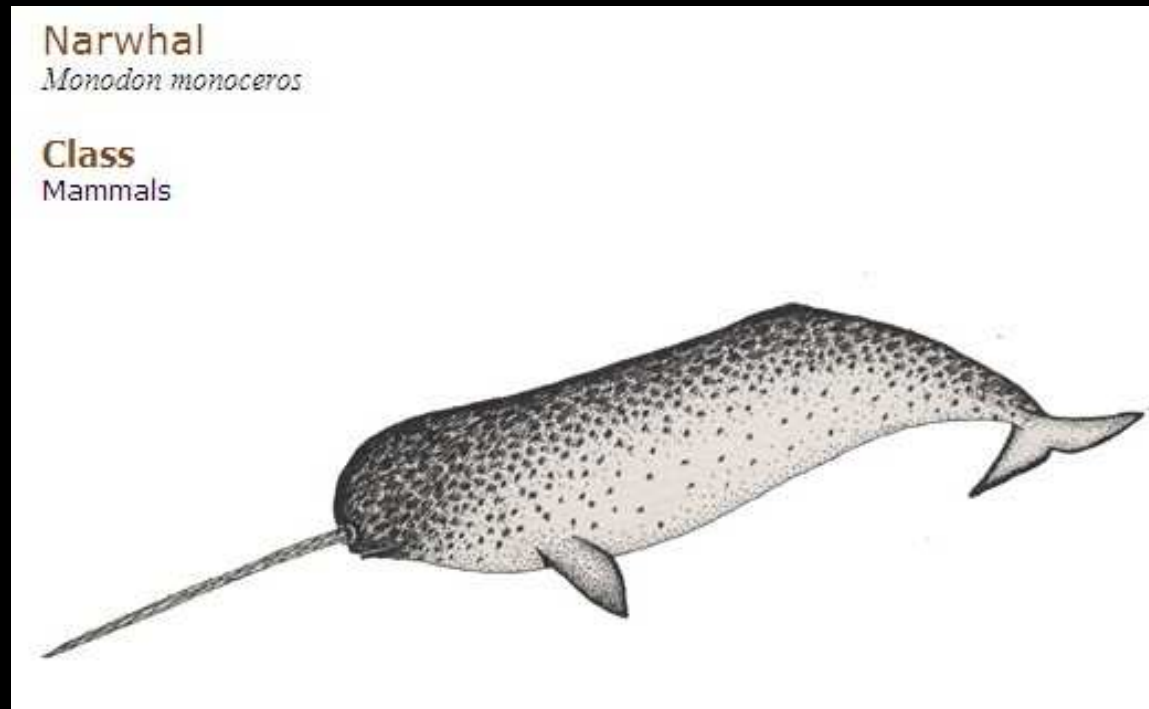


Francis Bacon
(1561 - 1626)

Scientific Method - Scientific Revolution

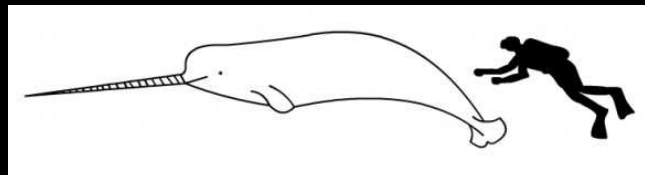
Big Data

2012: Narwhal Project



Source: exploringnature.org

Big Data: Who has the Processing Power?



Algorithms' Dictatorship?

Habeas Data, Right to Oblivion



"Big Data" needs to be complemented by "Big Judgment"
Harvard Business Review, 2012

Shah, Shvetank; Horne, Andrew; Capellá, Jaime "Good Data Won't Guarantee Good Decisions", Harvard Business Review, 2012



Max Kelly, the Chief Security Officer for Facebook,
left the social media company in 2010,
and went to the National Security Agency

2013: The 5 "Big-Clouds" (silos?)

1975: Microsoft

Microsoft

1976: Apple



1994: Amazon

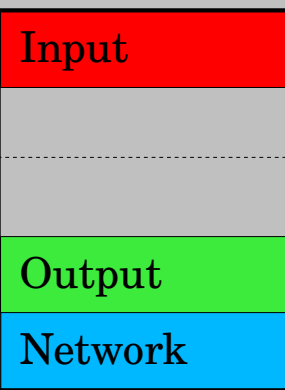
amazon.com

1998: Google

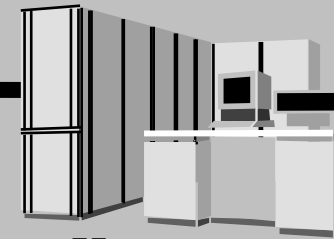
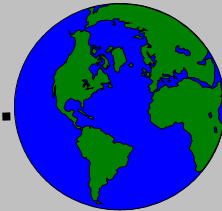


2004: Amazon

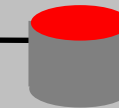
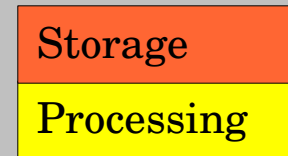
facebook



TouchScreens



Host



IF Most of Applications are into the Cloud
IF Most of Big Data are outside Organizations

What is the Identity of an Organization?



Adriano Olivetti
(Ivrea, 1901 - Aigle, 1960)

Grazie!

Cloud Computing 2013: Parzialmente Nuvoloso



Linux Day 2013

Accademia dell'Hardware e del Software Libero

"Adriano Olivetti"