

#01. Vocabulary

University of Bergamo
Master Course in Project and
Management of Tourism Systems
Academic Year 2021-2022
IT for Tourism Services

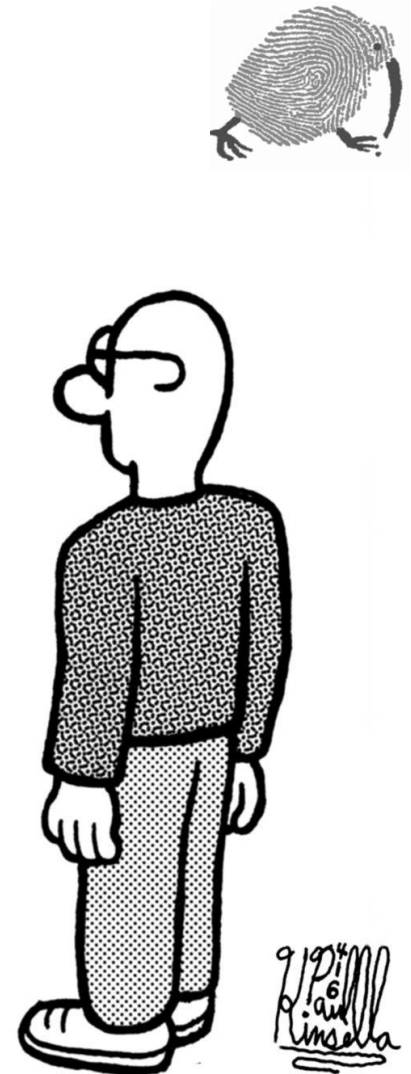


image credit to [Caped Coaching](#)

NEW

WRITING ASSISTANT
SPOKEN EXAMPLES
TEACHER'S LESSONS

Vocabulary?

DICTIONARY ACT VATOR EXERCISES GRAMMAR web_email POP UP
vocabulary noun → tools ?

vocabulary *noun*

Menu Word family Word origin Verb form Word set

plural **vocabularies**

- [uncountable and countable] all the words that someone knows or uses
 - Reading is one of the best ways of improving your vocabulary.
 - He has a wide vocabulary.

active vocabulary (=the words someone can use)
passive vocabulary (=the words someone can understand, but does not use)
- [countable] all the words in a particular language:
 - English has the largest vocabulary of any language.
- [uncountable and countable] the words that are typically used when talking about a particular subject:
 - Most technical jobs use a specialized vocabulary.

vocabulary of

 - the vocabulary of politics
- [uncountable and countable] the range of possible features, effects, actions etc, especially in a type of music or art

vocabulary of

 - Charlie Parker expanded the vocabulary of jazz.
- (the word) **failure/guilt/compromise etc is not in somebody's vocabulary** used to say that someone never thinks of accepting failure etc
- [countable] *old-fashioned* a list of words with explanations of their meanings, especially in a book for learning a foreign language

Phrase bank

Dictionary phrases:

- (the word)
- failure/guilt/compromise etc is not in sb's vocabulary
- active vocabulary
- has a wide vocabulary
- passive vocabulary
- vocabulary of

Examples bank

Extra dictionary examples

- a **vocabulary** test
- How big is the average 4-year-old's **vocabulary**?
- Naomi has been using flash cards to increase her **vocabulary**.
- Reading is a good way to increase your **vocabulary**.
- These stories are written for

Activate your language

all the words someone knows or uses

vocabulary • terminology



Ok. But what are we talking about today?

1. Buzzwords
2. Digital? What is this?
3. Protocols, languages, algorithms
4. Coding
5. Destinations and POIs
6. Bandwidth
7. The Global Positioning System



0 1 2 3 4
5 6 7 8 9

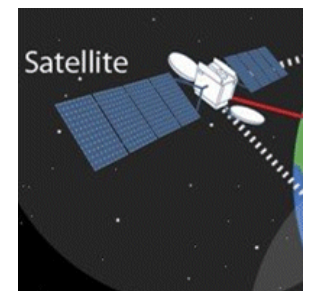
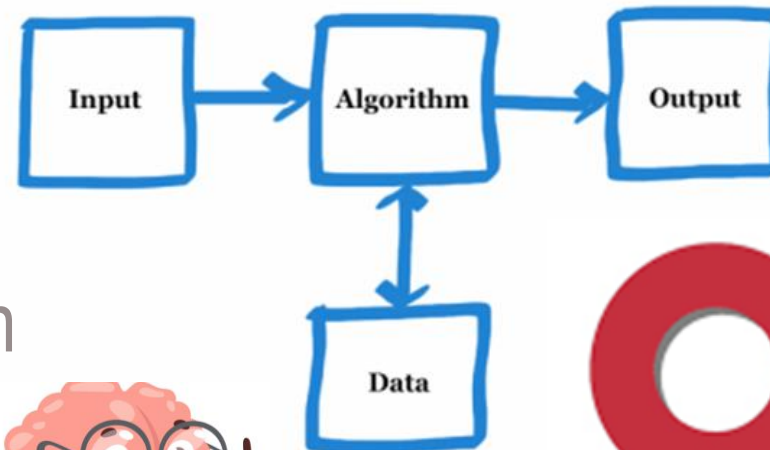


image credits to Musement, Paessler and National Geographic

Buzzwords



Words **matter**. Quite often, however, we use **buzzwords**.

Examples of words that are used generically, to the point they become empty? Smart cities, **smart tourism**, smart working... even **algorithm**.

Other meaningful words which may become buzzwords? **Resilience** and **sustainability**. When used **inconsiderately**, they lose their meaning.

Same for **politically correct**, an expression which someone considers radical chic. Yet, joking about political correctness leads to offence.

"Why shouldn't I feel free to call you a Negro?"

"Why shouldn't I feel free to call you a faggot?"

Because you would be speaking badly, and those who speak badly **think badly**. That's scary.

Since we're talking of words, let's look at <https://paroleostili.it/en/>





Hostile words

1. Virtual is real

I know that communication is an integral part of my political activity, directed to the common good. Therefore, I always take responsibility for my communication, both online and offline. I do not consider the Internet to be a free zone where everything is allowed, and I do not use it in that way.

2. You are what you communicate

I am defined by what I communicate. I always ensure that everything communicated by me or on my behalf is respectable, and I act respectably in my political life.

3. Words shape the way I think

I am intellectually honest. I define my ideas and intentions as best I can. I do not exploit the immediacy of the media to spread seductive but offensive or unfounded messages. I respect the intelligence of my audience.

4. Listen before you speak

I give full consideration to the opinions of others even when I do not share them. I do not interrupt others. I do not twist their words to gain advantage. I prefer dialogue and reasoned argument to monologue.

5. Words are bridges

I believe in the force of my ideas and the power of my words. Whether speaking to political opponents or voters, I use my arguments and passion to convince, never to destroy.

1. Words have consequences

I believe that public debate, even if heated, should give everyone an opportunity for growth. As a public figure I realise that everything I say affects many people. I think of the consequences before making any statement.

2. Share with care

My personal credibility is affected by what I share online. I do not create, disseminate or promote news, information or data that I know to be false, manipulated or misleading. Nor do I permit anyone communicating on my behalf to do so. I remind my supporters of their responsibilities.

3. Ideas can be discussed.

People must be respected

People must be respected. I fight for my own views and challenge those I think are wrong, but I do so always and only based on content. I respect people I engage with and their personal space. I do not belittle them or attribute words to them that they never said.

4. An insult is not an argument

Machiavelli wrote that men offend either from fear or from hatred. I know that insults are humiliating for the insulted and the insulter: that is why I neither insult nor respond to insults, and I commit myself to improving my country by starting to improve the level of public debate.

5. Silence says something too

I do not speak merely to occupy space or deprive my opponents of space. When I speak, I use words and phrases that are relevant and have weight and meaning. When I am silent, even my silence has weight and meaning.

Preconditions to these lectures



These lectures' **syllabus**, as published on the website of the University of Bergamo, requires that students fulfil **some preconditions**. Here they are.

- **English** proficiency; systematic use of **e-mail**, **web navigation**, **social** networking, and **mobile** communication; willingness to **keep in touch** on a **professional** level through social networks and/or e-learning platforms.
- **Recognizing the technical nature** of **web** navigation: basic understanding of **operating systems**, communication **protocols** among computers, and the **html**.

Therefore, these lectures are **taking your awareness** of operating systems, communication protocols among computers, and the html, **for granted**.

However, a summary about communication protocols among computers, and the html, is going to be introduced today. If you know all this stuff already, sorry for boring you.

Information technology & digital



These lectures are entitled **IT for Tourism Services**.

“**IT** stands for **Information Technology**, which is the use of **computers** to store, retrieve, transmit, and manipulate **data**, or information.

Information Technology is considered to be a subset of **Information and Communication Technologies (ICT)**.

All **data** that a computer processes **must be encoded digitally**.”

The words above are quoted from the English – i.e. **global** – edition of **Wikipedia**.

Though Wikipedia cannot be considered **an academic source**, your lecturer strongly believes that its global edition can be **quoted** in an academic environment **as reasonably as the Encyclopaedia Britannica** or any other fact-checked source, the authors of which are published.



WIKIPEDIA
The Free Encyclopedia

What is digital?



Digital derives from the Latin word **digitus**, meaning **finger**.

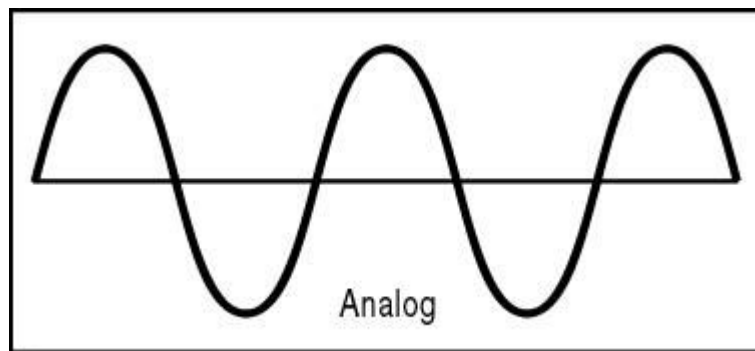
In short, digital is what can be **represented with numbers**, which can be counted with fingers.

Digital is opposed to **analogue** (analog, in American English) which is related to what is not countable: **what cannot be considered within a discrete set of elements**.

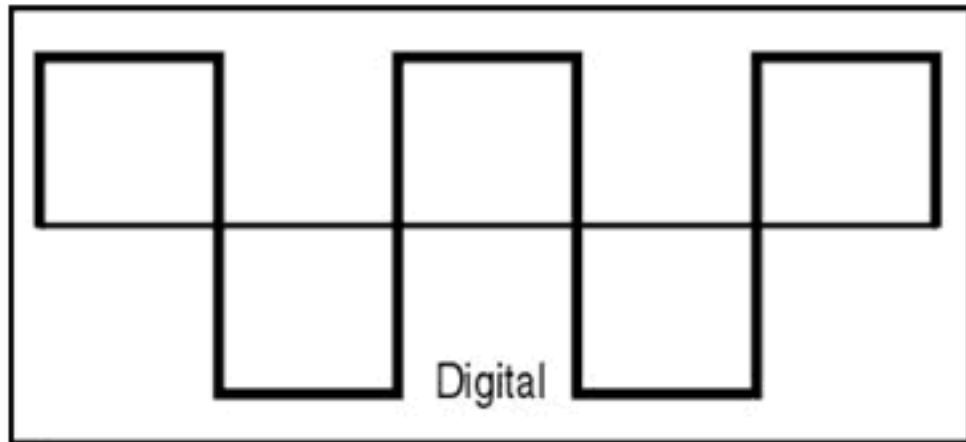
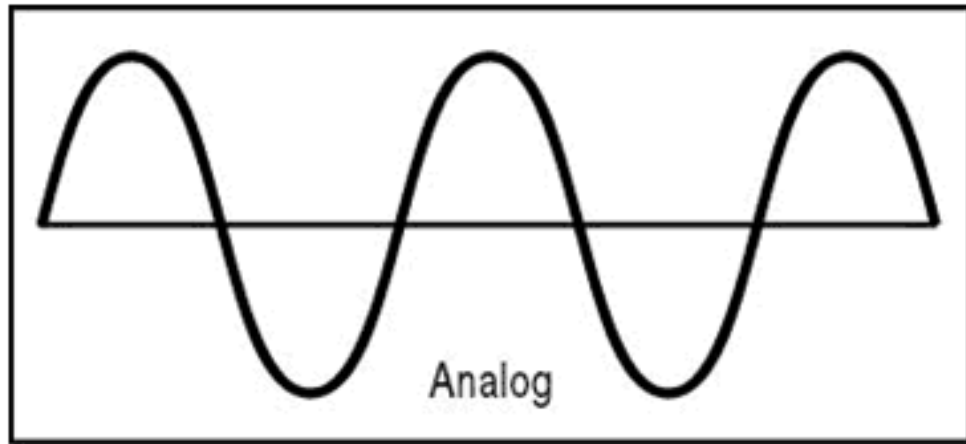
0 1 2 3 4
5 6 7 8 9



**The analog hole
is my ear.**



A real wave vs. a digital wave



The **MP3** lossy compression works by reducing (or approximating) the accuracy of certain parts of a **continuous** sound that are considered to be **beyond the auditory resolution ability** of most people.

This method is referred to as **perceptual coding**. It uses psychoacoustic models to discard or reduce precision of components less audible to human hearing.

Source: [Wikipedia](#)

A cello vs. an iPod



image credit to 30cc

Mechanical vs. digital watches



A mechanical watch is analogue inasmuch as **the position** of each of its three hands (hours, minutes and seconds) can represent **any of the infinite points** forming the circle of the watch itself – points that cannot be numbered.

In a digital watch, instead, **only the figures** which make up hours, minutes and seconds **are usually represented** – only the 86,400 moments (24 hours x 60 minutes x 60 seconds) making up the seconds of a day.



pictures from [Bespoke](#)

Painting, photographs and pixels



An oil on canvas **painting**, or a watercolour, or a traditional **photograph** (a photograph based on a chemical film) consists of an **infinite** number of **points** in an **infinite** range of **colours**.

A painting or a chemical photograph can be digitized (scanned, for instance) and translated into a **digital photo** where its surface is represented as divided into a **discrete number of “points”** (usually small squares called **pixels**).

Each **pixel** reproduces **only one colour** in an available range of **16,777,216** (a combination of 256 shades of red, 256 of green and 256 of blue – according to the widely used **RGB colour** model).

(There are other digital models to define colours. We don't go through them here.)



Another way to digitalize images



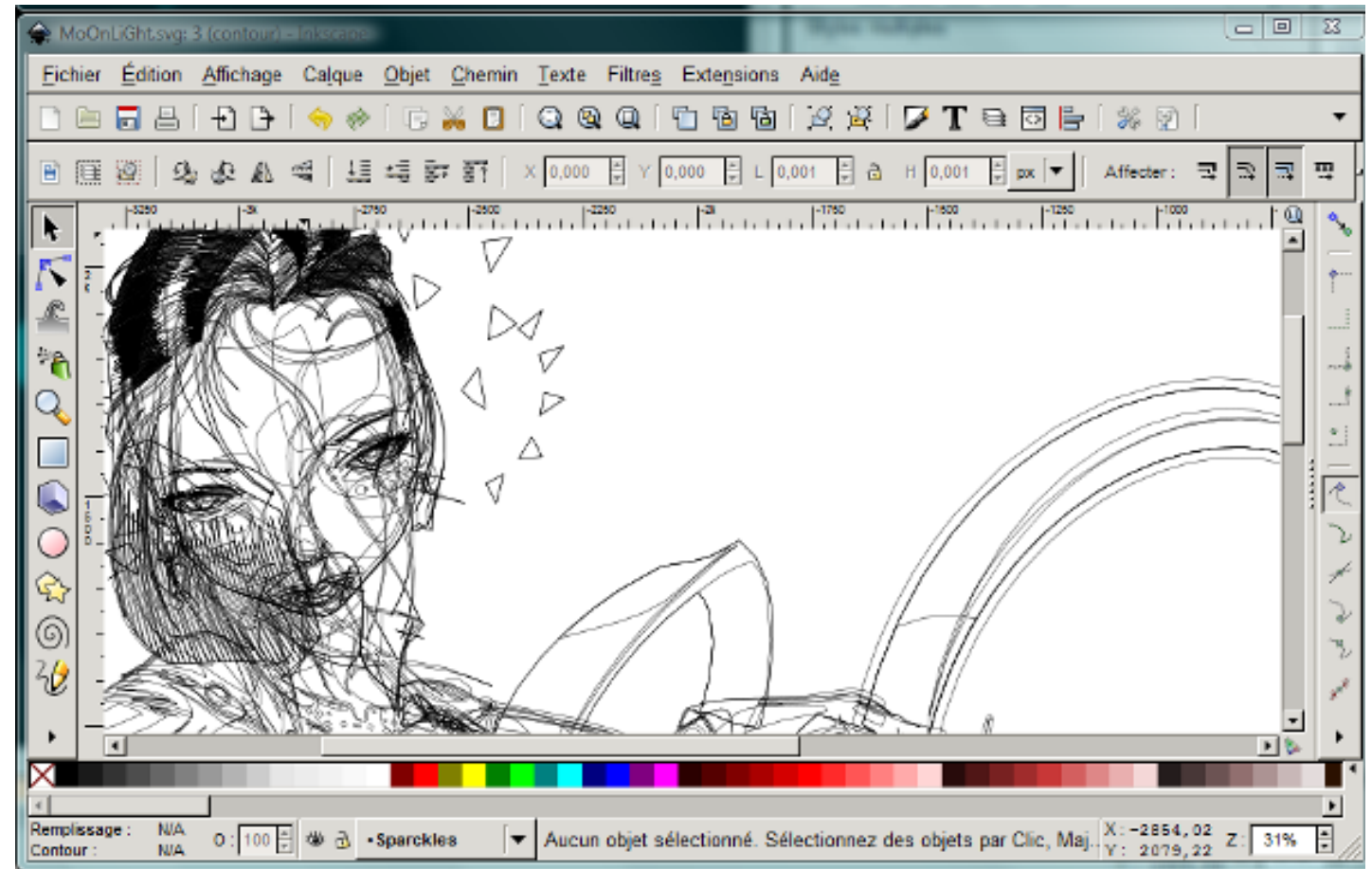
Note, however, that there's another common approach to digital images.

Beyond pixel “squares”, digital graphic can be designed and managed through **vectors**.

Portions of space are defined by **Bézier curves**.

(We do not go through vector imaging here.)

pictures from [thewindowsclub](#) and [nepero.net](#)

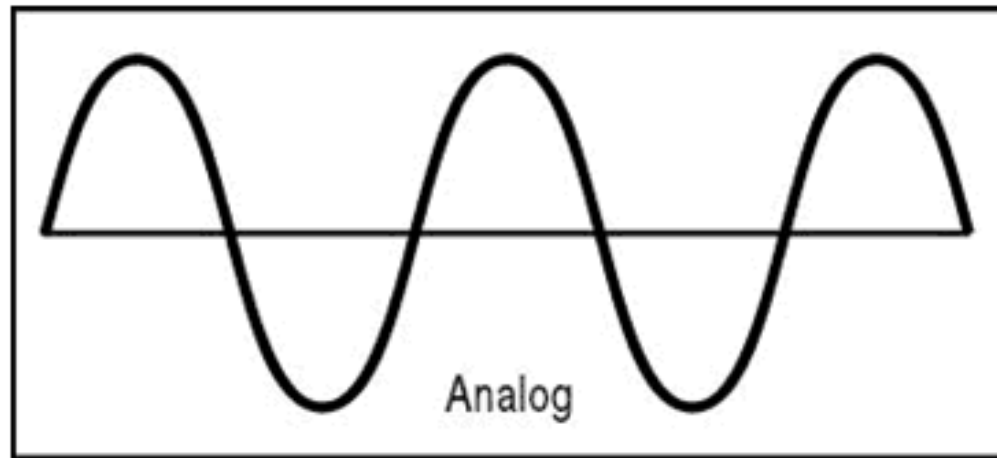


Waves and bits



Many technologies rely on digital to reproduce a wave (a sound or a light wave) that was originally analogue.

A **modem**, as those currently used for ADSL connections, **converts** an **analogue** sound signal that can be sent through telephone wires into a **digital** signal, of the sort requested by computers or other electronic devices working by bits (1/0)



or the opposite, depending on whether receiving or sending.

(By the way, ADSL stands for **Asymmetric Digital Subscriber Line**)



Bits vs. bytes



- A **bit** (a binary digit) is the **basic unit** of information in computing. It is the amount of information stored by a digital device or other physical system that exists in one of **two possible distinct states**.

These may be the **two** stable states of a flip-flop, **two** positions of an electrical switch, **two** distinct voltage or current levels allowed by a circuit, **two** distinct levels of light intensity, **two** directions of magnetization or polarization, etc.

- The **byte**, instead, is a unit of digital information in computing and telecommunications, that most commonly consists of **eight bits**.

Originally, a byte was the number of bits used to encode a single character of text in a computer and for this reason it is the basic addressable element in many computer architectures.

The logical representation of a bit as a digit is
1/0

Yes/No

True/False

This is called a **Boolean Data Type**. (In Boolean algebra the values of the variables can only be the truth values true and false.)

ASCII characters



Converting the text "hope" into binary

Characters:	h	o	p	e
ASCII Values:	104	111	112	101
Binary Values:	01101000	01101111	01110000	01100101
Bits:	8	8	8	8

ComputerHope.com

Every time a computer deals with a character, it deals in fact with a Boolean string of eight 1/0.

This is what happens in our machines every time we digit on the keyboard "asking" them to code q, w, e, r etc.

“Being digital” as a book from 1995



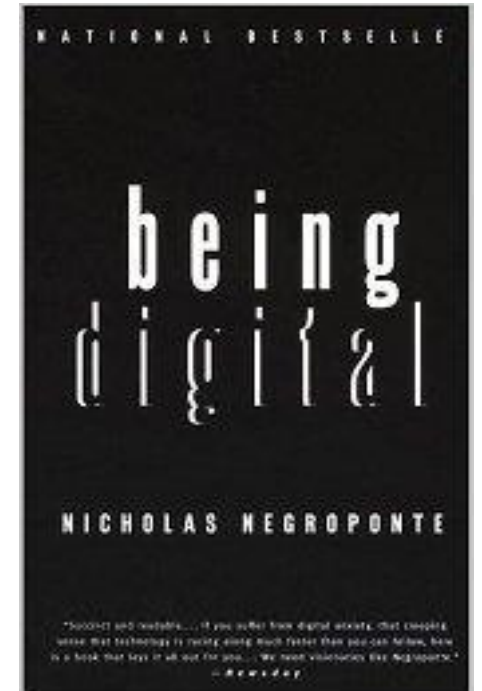
“I am optimistic by nature. However, every technology or gift of science has a **dark side**. Being digital is no exception.

The next decade [1995-2005] will see cases of intellectual-property **abuse** and **invasion** of our privacy. We will experience digital **vandalism**, software **piracy**, and data **thievery**.

Worst of all, we will witness **the loss of many jobs**. [...]

It is here. It is now. It is almost genetic in its nature, in that each generation will become more digital than the preceding one. The control bits of that digital future are more than ever before in the hands of the young. Nothing could make me happier.”

— **Nicholas Negroponte**, Massachusetts Institute of Technology (MIT)



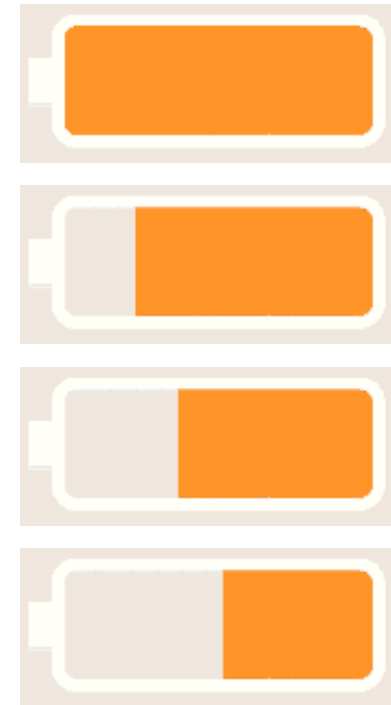
Communication



We talked of **Information and Communication Technologies** (ICT)... Well, **communication** is a basic aspect of digital, today.

The **best way** to communicate is **meeting** someone in person. It's the real thing – uncountable and, if you want, analogue.

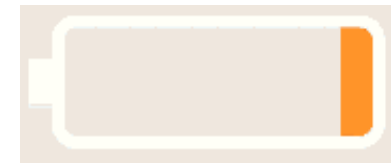
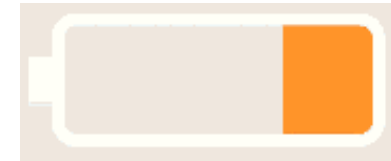
- When you call her/him through a videophone (or VoIP, like **Skype**), you miss at least the physical context around her/him.
- When you call her/him **on the phone**, you miss the physical context, and you don't see her/him.
- When you send her/him an **e-mail message**, you miss the physical context, you don't see her/him, and you don't know when and where she/he will read.



Digital communication



- When you send her/him a **text message**, you miss the physical context, you don't see her/him, you don't know when and where she/he will read, and you must keep it short.
- When post something **on the Web**, you miss the physical context, you don't see your audience, you don't know when and where your audience will read, you must keep it short, and you don't know – or will know little of – your audience.



Let's **not forget** all this, when communicating through the Internet!

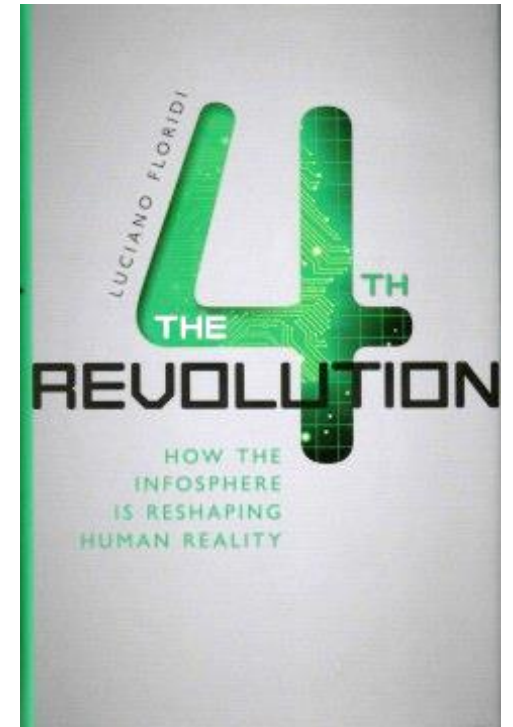
Yet, despite the **intrinsic “poverty”** of digital communication, we use digital machinery to the point that we live in an **ecosystem** with them.

A human-digital ecosystem



The *Fourth Revolution* is a 2014 book by Luciano Floridi, an Italian philosopher currently based in Oxford. The book's subtitle is "How the *infosphere* is reshaping human reality."

- The book considers the *influence* information and communication technologies (ICTs) are having *on our world*
- Describes some of the *latest developments in ICTs* and their use in a range of fields
- Argues that ICTs have become *environmental forces* that *create and transform* our realities
- Explores the impact of ICTs in a range of areas, from education and scientific research to *social interaction*, and even war



Tourism as a human-digital ecosystem



Tourism ecosystem
Value flow

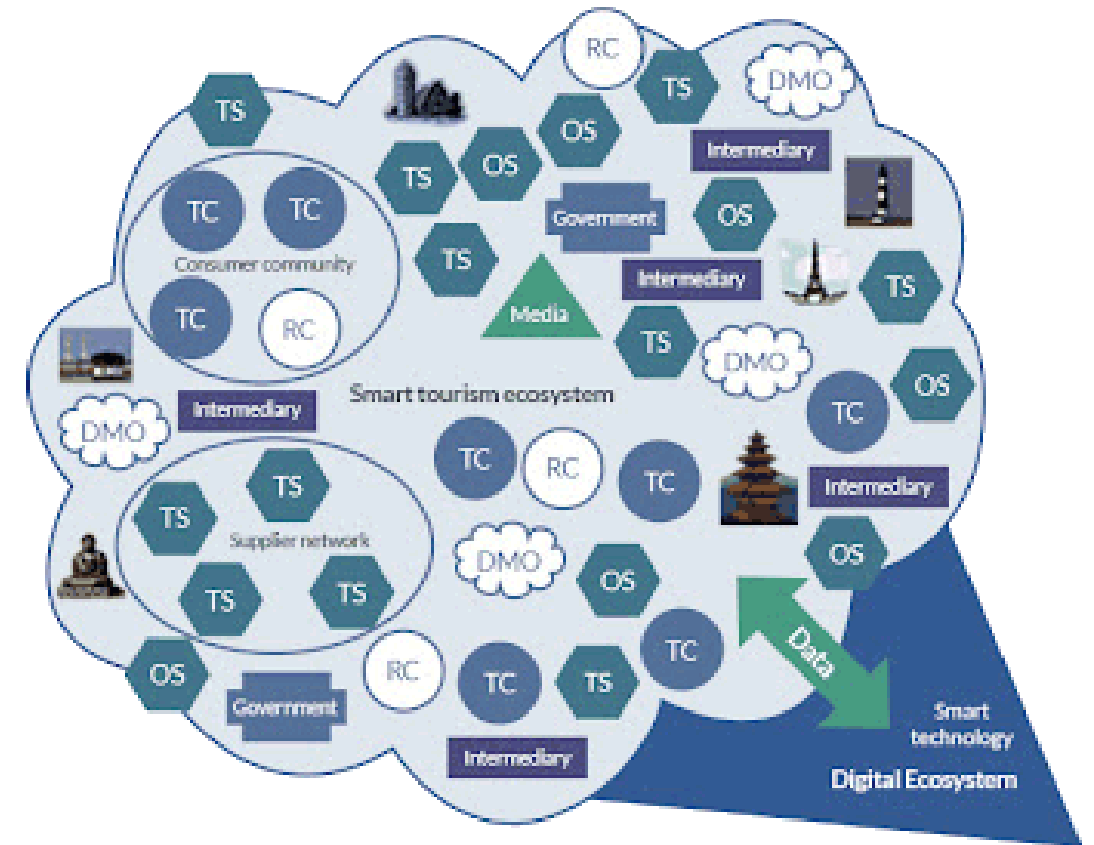
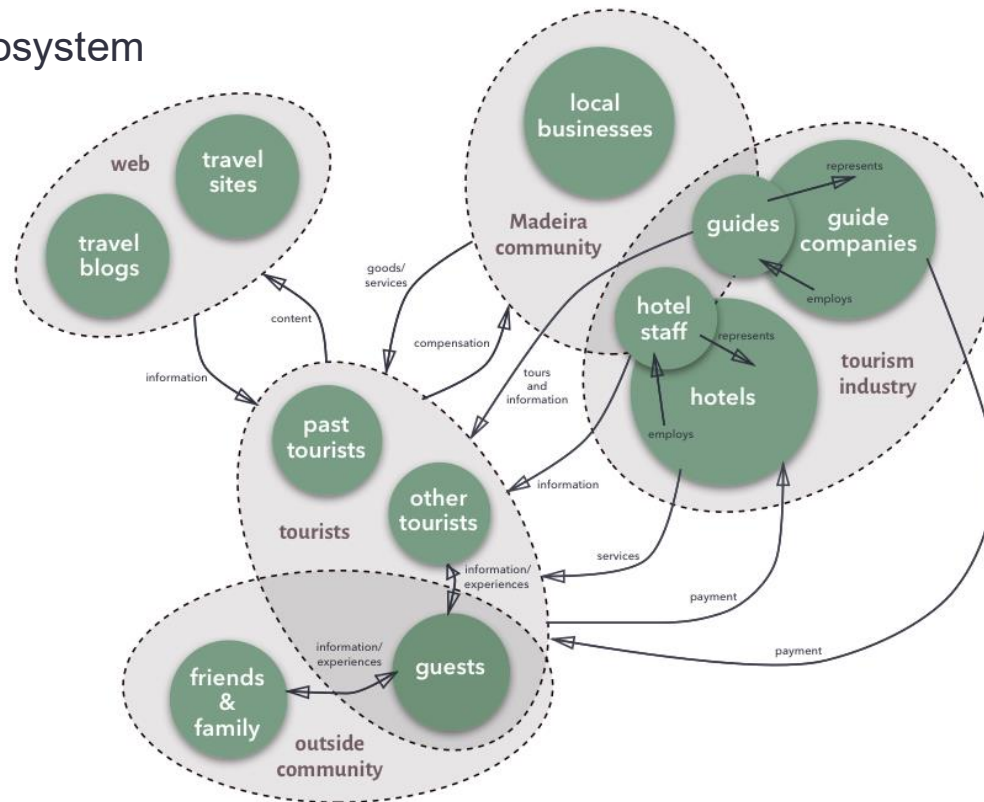


image credits to sarastalla.com

Source: Ulrike Gretzel, Hannes Werthner, Chulmo Koo, Carlos Lamsfus. *Conceptual foundations for understanding smart tourism ecosystems*. Computers in Human Behavior, Volume 50, September 2015, 558-563

Digital is “poor”, yet very powerful



Neither should we forget, on the other hand, the great **power** of digital.

“Poor” communication and relationships – Facebook “**friends**” are not necessarily friends – are paralleled by an enormous quantitative increase in digital communication, virtual relationships, and social influence.

Fake news, for instance, are extremely powerful.

We have less real connections, but can talk to **more people** and do **many more things**.

This is the sort of **power** fully detained by the so-called **Big Tech** companies.

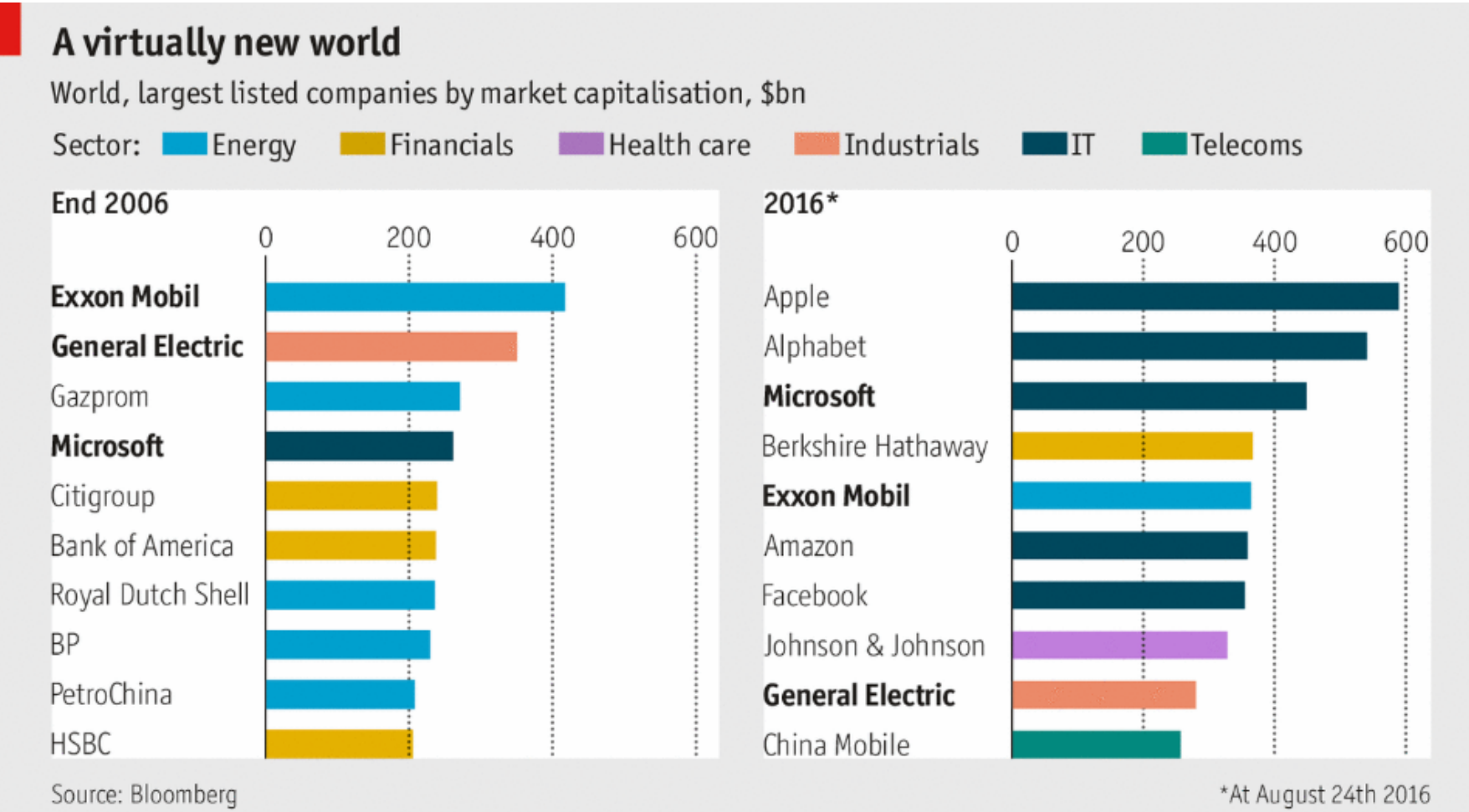


image credit to [Mashable](#)

Digital, market capitalization 2016



As early as in August 2016 the **three biggest companies** in the world belonged to the **Information Technology sector**.



Digital, market capitalization 2019



The diagram from The Economist is particularly clear. More recent data, although not split between digital and non digital, confirm the trend.

Source: Boston Consulting

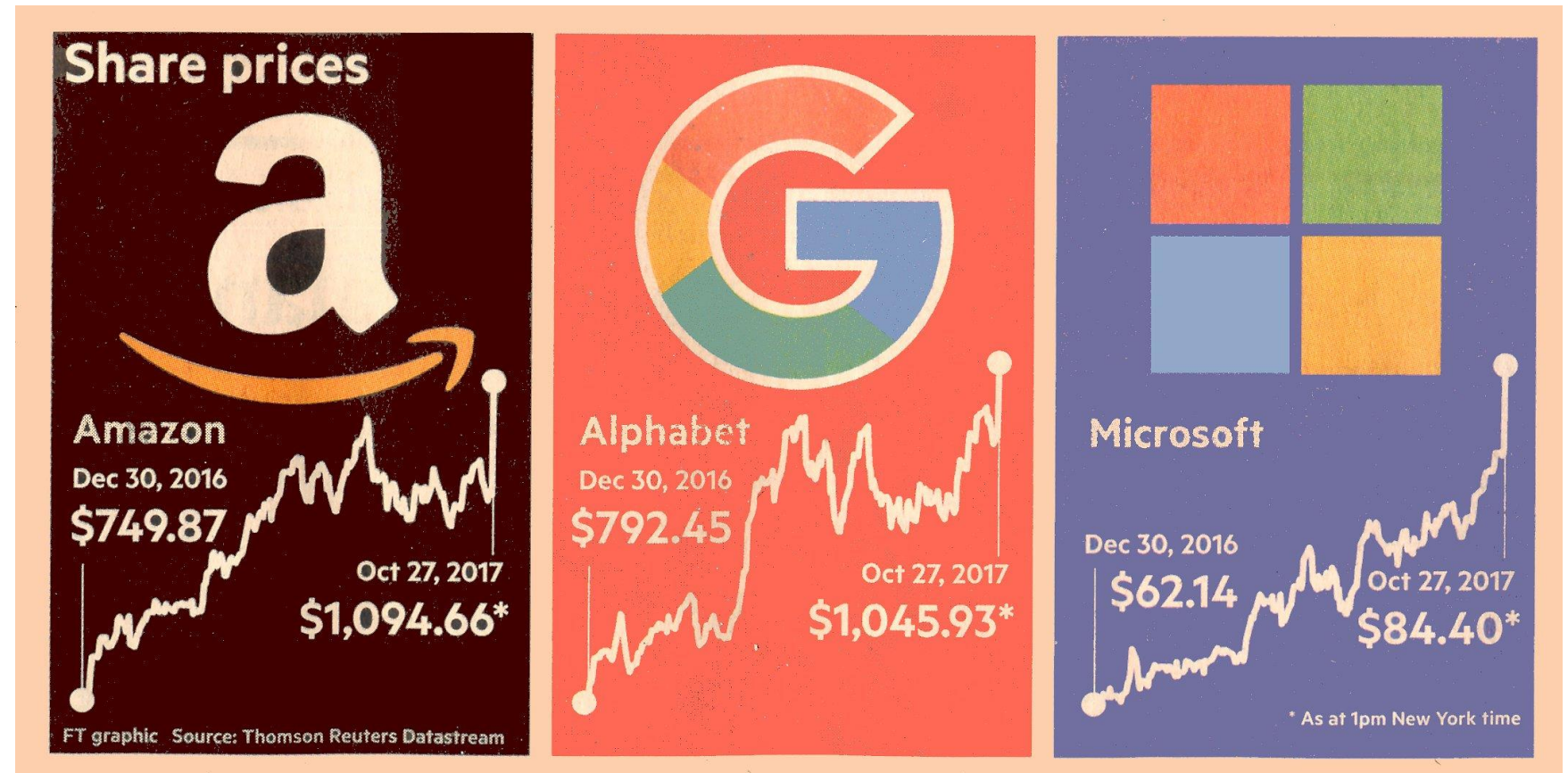


Digital, share prices, power



About an year after the 2016 diagram by The Economist, similar conclusions could be drawn in terms of share prices and their rise.

Source: Financial Times



Digital, share prices, power, 2021



Please find the same values as on August 16, 2021.



Sources: [Financial Times](#) and the author from [NASDAQ](#)

A warning, just in case



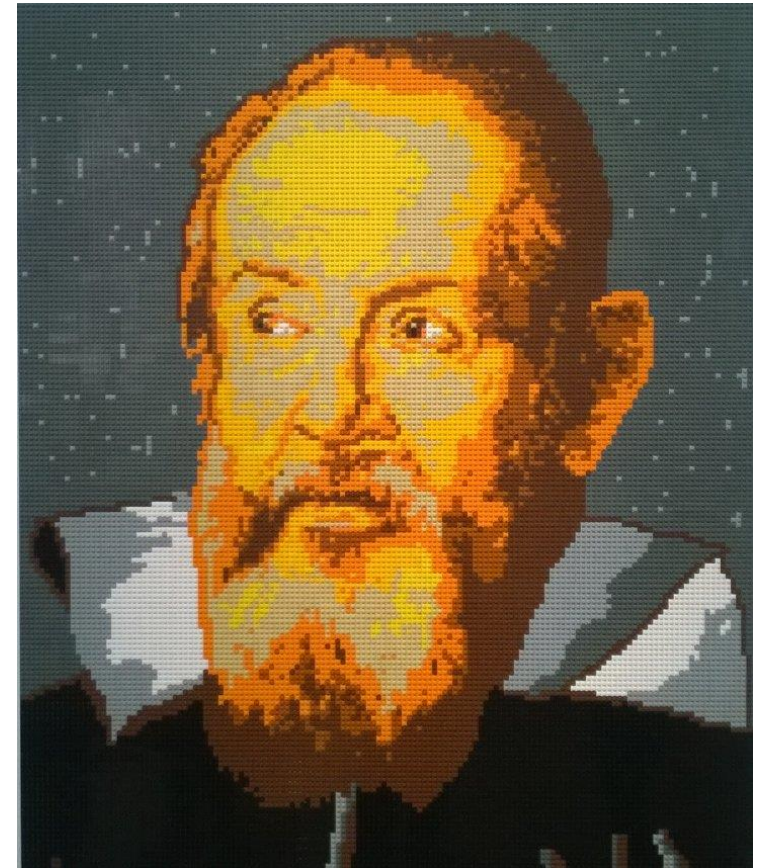
One point should be underlined, just in case.

By no way your lecturer means that **numbers** are poor – or even dangerous.

On the contrary, numbers are a fundamental component of **science**, which is essential for our potential ability to understand reality.

Only consider that any attempt to **code** reality in Boolean terms is **not the same thing as reality**.

Yet – as previously underlined – digital and science allow us to talk to **many more people** and **do many more things**. Indeed, we can **understand** much more.



A pixelated Galileo, by Chinese artist Ai Weiwei

The Internet and the Web



Back to the basic of digital. **Is there any difference** between the **Internet** and the **Web**? Of course **there is!** We will be back to this point, but here's another warning.

A perfect way to be refused from an assessment in IT for tourism services is talking of an “Internet site”. It's a complete non sense, like talking about “the blood of a cell” or “the pagination of a bookshop”.

One thing that the Internet and the Web **share**, however, is that they are both based on **communication protocols**.



pictures from [Sociologia On Web](#) and [Code](#)

Communication protocols



What are communication protocols? Once again, we can rely on [Wikipedia](#).

“A communication protocol is a **system of rules** that allow two or more entities of a communications system to **transmit information** via any kind of variation of a physical quantity. The protocol defines the **rules**, **syntax**, semantics and **synchronization** of communication and possible error recovery methods.”

On which communication protocols are the Internet and the Web based?

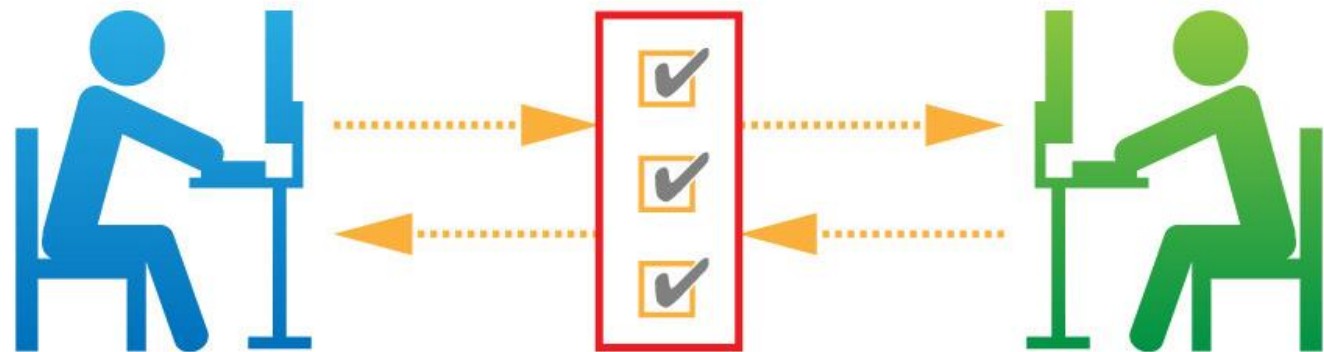


image credit to [VectorStock](#)

The TCP/IP protocol



To make it short, the Internet is based on the **TCP** (Transmission Control Protocol) – which **splits** the message in **packets** comparable to the cars of a funny train which **travel on different rails**, but **know how to regain their order** at the arrival station – and relies on the **IP** (Internet Protocol) **protocol** to know how to drive **packets** from the starting station to the arrival station whatever rails **cars** travel along.

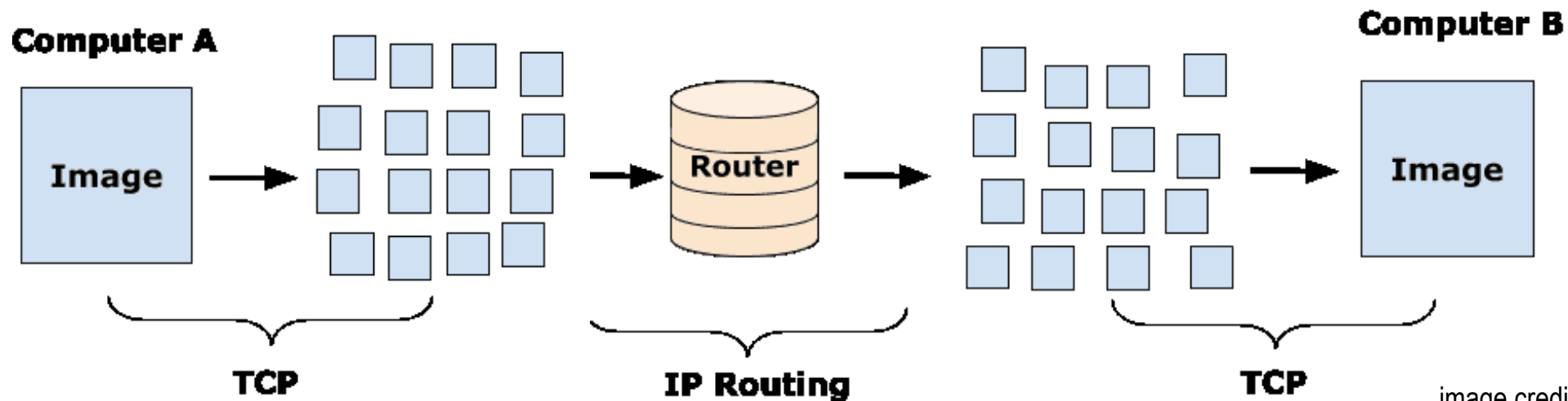


image credit to [Sangoma](#)

The http protocol



The communication protocol used by the **Web** is a different one.

It is the **http** (hyper text transmit protocol), which states how an **hypertext** can be transmitted from a machine to another when travelling through the Internet.

A text is defined as an hypertext when it includes **elements** that **link it** to other texts. (Index and footnotes in a printed book are themselves hypertexts, although in this instance – being a printed book a text per se – it's advisable call them **paratexts**, that is ancillary texts **aside** the main one.)

Web pages are hypertexts not because they travel through the Internet – rather than stay on a bookshelf or in someone's hands, like printed books do – but because they are written in a hypertextual language: the **html** (hyper text **markup** language), where hypertextual links are **marked up**, and declared, by **tags**.

The html language



Basic **tags** are enough to turn any plain text into an hypertext written in **html** language.

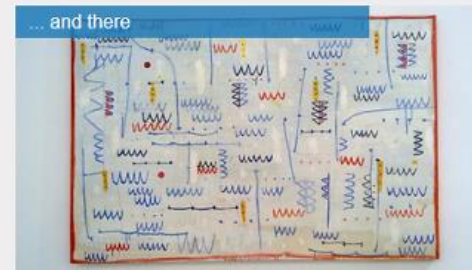
```
<html></html>
<head></head>
<title></title>
<body></body>
```

```
<html>
<head>
<title>The page title, which appears in the browser's top
bar</title>
</head>
<body>The page's content, what we want to tell the
world, and the browser visualizes.</body>
</html>
```

A typical html hypertext includes more **tags**, which **link to other html texts**, provide **typographical design rules**, and place **icons and images**.

A personal sample follows.

✦ I've been carrying **studies** out, designing workshops and lecturing at the [University of Bergamo](#) for some twenty years. I also teach at the [University of Trento](#) since 2017, and lecture at the Universities of Genoa and Piemonte Orientale.
✦ My [stimulus material](#) is available free on the Web. ✦ Some [presentations](#) can be found on SlideShare.
✦ My papers are mentioned on [Academia.edu](#) and [ResearchGate](#).



The source of a webpage



Here's the second sentence from your lecturer's home page as transmitted via http in **html** language. It's not what we see. It's **the real thing**: the **source** of the webpage.

```
<div class="row background_color">
  <div class="large-12 columns"> <i class="fi-wrench size-42"></i> I've contributed <span class="HighLight">tourism</span> content -
  guidebooks, photos, reports and papers - to publishers and research centers since the 1980s. <i class="fi-wrench size-17"></i> As
  summarized in my <a href="Material/Roberto_Peretta_curriculum_202106.pdf" target="_blank" title="curriculum of Roberto Peretta in
  pdf format">curriculum</a>, I've been repeatedly hired for consultancy by the Touring Club of Italy, and worked for Universities, City
  Councils and professional associations in five Italian regions. <i class="fi-wrench size-42"></i> What I've been doing is retraced on <a
  href="https://linkedin.com/in/robertoperetta" title="Roberto Peretta on LinkedIn" target="_blank">LinkedIn</a>.<br />
  <i class="fi-key size-42"></i> <span class="HighLight">Non-Profit</span> can be perceived as something frustrating, only as long as
  you don't practice it. <i class="fi-key size-17"></i> I long dealt with House Museums, and used to help their cause. So why not helping
  <a href="https://giulianoorganotesero.it/" target="_blank" title="Giuliano per l'organo di Tesero">an organ</a> in the Fiemme Valley?<br
  />
  <i class="fi-anchor size-17"></i> <span class="HighLight">Milano</span>, or Milan, is my home town, and the place where I live and
  <a
  href="https://www.google.com/maps/place/KIWI,+Milano/@45.481175,9.219079,17z/data=!3m1!4b1!4m2!3m1!1s0x4786c6eec5782e31
  :0x3cf8a68d793de86c?hl=en" target="_blank" title="KIWI Milano">work</a>. <i class="fi-anchor size-17"></i> It comes as no surprise
  that I've delivered <a href="https://ciaomilano.it/e/" target="_blank" title="CiaoMilano">tourist information</a> and <a
  href="https://www.flickr.com/photos/ciaomilano/sets/" target="_blank" title="CiaoMilano on Flickr">photographs</a> on Milano since the
  1980s.</div></div>
```

A coloured source



Please find here different html components visualized in different colours. The source – per se a barely readable series of characters – becomes somehow clearer.

```
<div class="row background_color">
  <div class="large-12 columns"> <i class="fi-wrench size-42"></i> I've contributed <span class="HighLight">tourism</span> content -
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  />
  <i class="fi-anchor size-17"></i> <span class="HighLight">Milano</span>, or Milan, is my home town, and the place where I live and
  <a
  href="https://www.google.com/maps/place/KIWI,+Milano/@45.481175,9.219079,17z/data=!3m1!4b1!4m2!3m1!1s0x4786c6eec5782e31
  :0x3cf8a68d793de86c?hl=en" target="_blank" title="KIWI Milano">work</a>. <i class="fi-anchor size-17"></i> It comes as no surprise
  that I've delivered <a href="https://ciaomilano.it/e/" target="_blank" title="CiaoMilano">tourist information</a> and <a
  href="https://www.flickr.com/photos/ciaomilano/sets/" target="_blank" title="CiaoMilano on Flickr">photographs</a> on Milano since the
  1980s.</div></div>
```

Words in a source



This visualization puts in evidence the words, as opposed to tags.

```
<div class="row background_color">
  <div class="large-12 columns"> <i class="fi-wrench size-42"></i> I've contributed <span class="HighLight">tourism</span> content -
  guidebooks, photos, reports and papers - to publishers and research centers since the 1980s. <i class="fi-wrench size-17"></i> As
  summarized in my <a href="Material/Roberto_Peretta_curriculum_202106.pdf" target="_blank" title="curriculum of Roberto Peretta in
  pdf format">curriculum</a>, I've been repeatedly hired for consultancy by the Touring Club of Italy, and worked for Universities, City
  Councils and professional associations in five Italian regions. <i class="fi-wrench size-42"></i> What I've been doing is retraced on <a
  href="https://linkedin.com/in/robertoperetta" title="Roberto Peretta on LinkedIn" target="_blank">LinkedIn</a>.<br />
  <i class="fi-key size-42"></i> <span class="HighLight">Non-Profit</span> can be perceived as something frustrating, only as long as
  you don't practice it. <i class="fi-key size-17"></i> I long dealt with House Museums, and used to help their cause. So why not helping
  <a href="https://giulianoorganotesero.it/" target="_blank" title="Giuliano per l'organo di Tesero">an organ</a> in the Fiemme Valley?<br
  />
  <i class="fi-anchor size-17"></i> <span class="HighLight">Milano</span>, or Milan, is my home town, and the place where I live and
  <a
  href="https://www.google.com/maps/place/KIWI,+Milano/@45.481175,9.219079,17z/data=!3m1!4b1!4m2!3m1!1s0x4786c6eec5782e31
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  href="https://www.flickr.com/photos/ciaomilano/sets/" target="_blank" title="CiaoMilano on Flickr">photographs</a> on Milano since the
  1980s.</div></div>
```

Links in a source



This visualization shows the links to other webpages, between the `` and the `` tags. URLs are in blue, link titles in light orange, clickable words in black.

```
<div class="row background_color">
  <div class="large-12 columns"> <i class="fi-wrench size-42"></i> I've contributed <span class="HighLight">tourism</span> content -
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  1980s.</div></div>
```

Typography in a source



This visualization shows typographical design rules, like opening and closing `div` or `span` tags. The `
` tag instructs the browser to break a line.

```
<div class="row background_color">
  <div class="large-12 columns"> <i class="fi-wrench size-42"></i> I've contributed <span class="HighLight">tourism</span> content -
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  :0x3cf8a68d793de86c?hl=en" target="_blank" title="KIWI Milano">work</a>. <i class="fi-anchor size-17"></i> It comes as no surprise
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```

Icons in a source



This last visualization shows the icons. In this instance they are enabled thanks to a **CSS** (Cascading Style Sheet) and **class** tags.

```
<div class="row background_color">
  <div class="large-12 columns"> <i class="fi-wrench size-42"></i> I've contributed <span class="HighLight">tourism</span> content -
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  />
  <i class="fi-anchor size-17"></i> <span class="HighLight">Milano</span>, or Milan, is my home town, and the place where I live and
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```

The client-server architecture



Another very interesting side of the **Web** technology is its architecture.

The concept is that hypertexts – that is **webpages** written in html – are visited by a “passive” computer, the **client**, that reaches them at an “active” computer, the **server**, where hypertexts are stored.

We can read a definition from Wikipedia.

“**Client-server** model is a distributed application **structure** that partitions tasks or workloads **between the providers** of a resource or service, called servers, **and** service **requesters**, called clients. [...] Clients, therefore, initiate communication sessions with servers, which await incoming requests. Examples of computer applications that use the client-server model are **email**, network printing, and the **World Wide Web**.”

Each hypertext (webpage) is uniquely identified by its **URL** (Uniform Resource Locator).

Client-server. A diagram

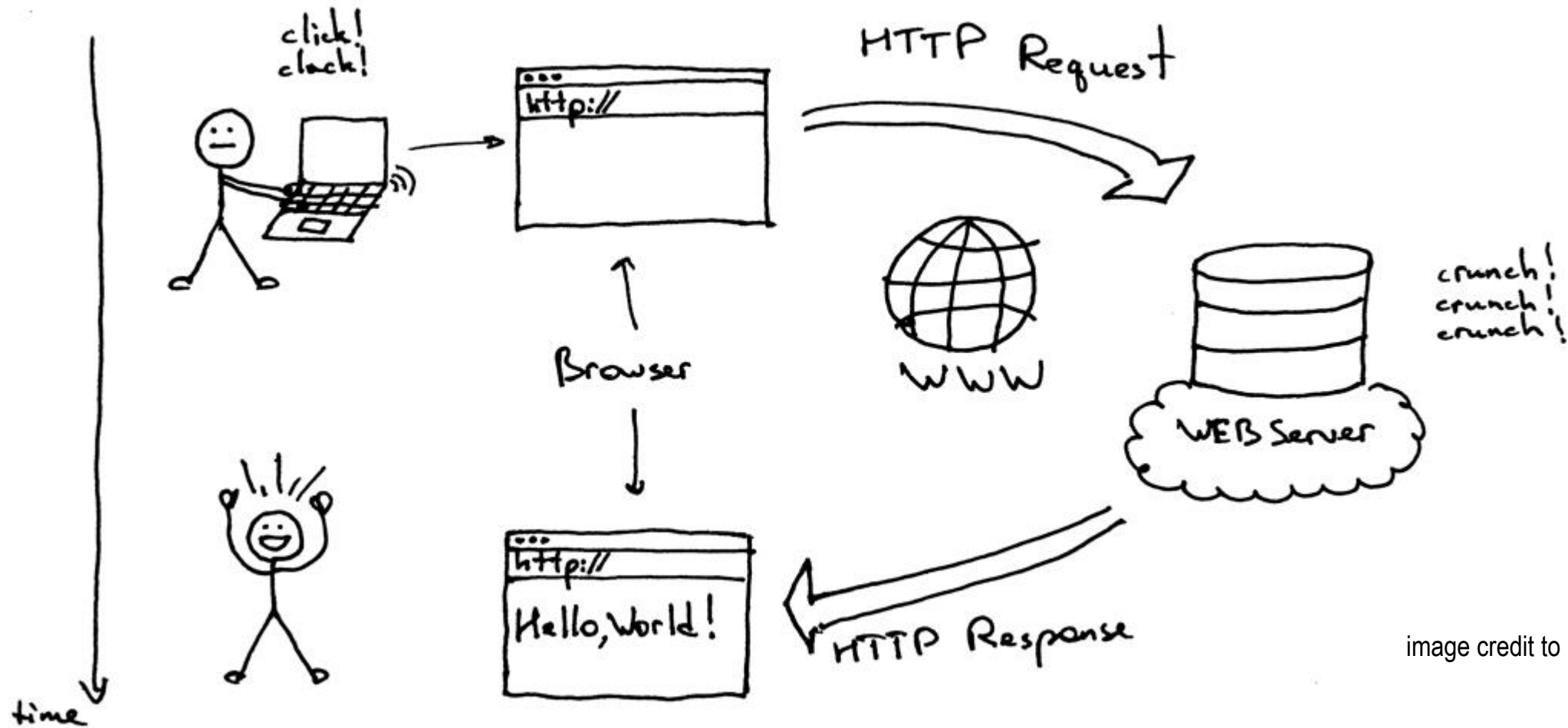


image credit to [Hacker Noon](#)

Codes and coding



We have moved from **bits** to communication **protocols**, then from protocols to **languages** and **html** sources. In doing so, we've risked to miss **a fundamental point**.

Bits are – so to say – bricks of digital buildings, but digital is not only something built. Rather, it is mainly **something doing**. Digital connects machines, allows clients to shake hands with servers, generates sources for browsers to see, manages processes. In a word, digital **works**.

The entity that commands bricks to make them work is called code. **Coding** is the job of programmers and software developers. Digital machinery is activated by codes.

image credit to [Cartface Blog](#)



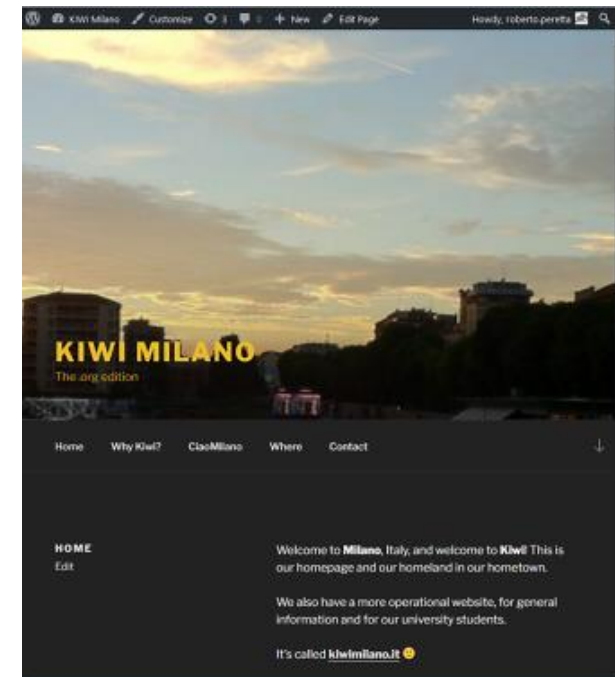
Writing html pages



Html sources are themselves codes, and applications which help writing in html do exist. Sometimes – as with Dreamweaver – the job is performed on a local computer. More often, today, we act remotely on a Content Management System (CMS) which is not installed in our desktop. This is the case of the popular WordPress platform.

```
Source Code 0902002.css 0902002.css urdin.js
1 <html version="1.0" encoding="iso-8859-1" ?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
3 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
4 <html xmlns="http://www.w3.org/1999/xhtml">
5 <head>
6 <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
7 <link rel="stylesheet" href=".../style/ciao2002.css" type="text/css" />
8 <title>Monica Levy</title>
9 <meta name="Description" content="Monica Levy, imagine, immagini, foto, fotografia,
10 fotografia, milano, kiwi" />
11 <meta name="editor" content="Arachnophilia 4" />
12 <meta name="formatter" content="Dreamweaver MX" />
13 <meta name="author" content="Roberto Peretta: roberto.peretta@kiwimilano.it" />
14 <script language="JavaScript" type="text/javascript">
15 function MD_reloadPage (init) { //reloads the window if have resized
16 if (init=true) with (navigator) { if ((appName=="Netscape") && (parseInt(appVersion
```

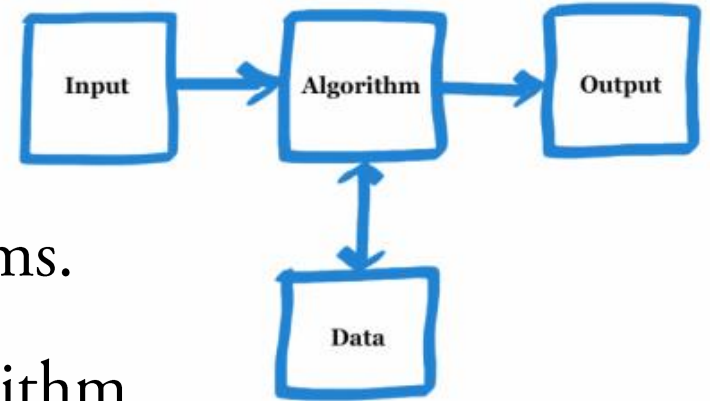
Title	Author	Date
Contact	roberto.peretta	Published 2017/03/14 at 4:54 pm
Home — Front Page	roberto.peretta	Published 2017/03/14 at 4:54 pm
Sample Page — Private	roberto.peretta	Last Modified 2017/03/14 at 4:48 pm
Where — Posts Page	roberto.peretta	Published 2017/03/14 at 4:54 pm
Why Kiwi?	roberto.peretta	Published 2017/03/14 at 4:54 pm



Algorithms



Talking about coding, a frequent keyword is **algorithm**.
What is an **algorithm**? Let's refer to our beloved Wikipedia.



“In mathematics and computer science, an algorithm is an **unambiguous** specification of how to solve a class of problems. Algorithms can **perform** calculation, data processing and **automated reasoning tasks**. As an effective method, an algorithm can be expressed within a **finite amount of space and time** and in a well-defined formal **language** for calculating a function. Starting from an initial state and initial **input** (perhaps empty), the instructions describe a computation that, when executed, proceeds through a **finite number of well-defined successive states**, eventually producing ‘**output**’ and terminating at a **final ending state**.”

Algorithms as recipes?



Algorithm, too, has become a buzzword, in as much as the word is often used to refer to something **inscrutable** that **machines** impose on people. This is only partially true.

Those who write algorithms may be compared to cooks – perhaps master chefs – who start from an **input** (water, salt, pasta, tomatoes, olive oil, basil), make use of **data** (pans, fire), define a **succession of states** (tomato slicing, separate cooking of tomato and pasta, mix) and **well defined times** to reach the spaghetti al pomodoro **output**.

A master chef, however, may certainly happen to prepare and serve spaghetti al pomodoro that diners don't like at all.

The algorithm/recipe may happen to provide an unsatisfactory output.

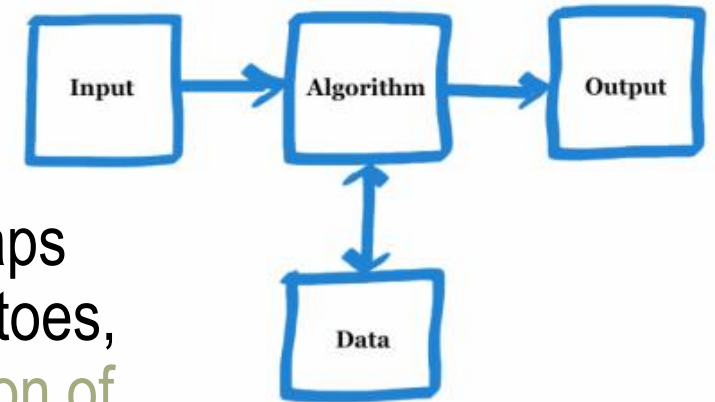


image credit to Musement

Can digital machinery learn?



Machines can be instructed not simply to produce outputs.

They can also be instructed to mimic human intelligence, processing pieces of information in a way replicated from human intelligence but much faster.

This is generically called the Artificial Intelligence (AI), a field which we'll go a bit deeper in later on.

For example, when Facebook provides you with advertisement based on what you looked at beforehand, or Google delivers answers to your searches which are based on the pages you previously visited, these are instances of AI.

Facebook and Google have learnt from your previous behaviour on the Web.

Their algorithms have been coded to make you see first – or only – content that is closer to all that Facebook or Google have recorded you did before.

Machines Learn

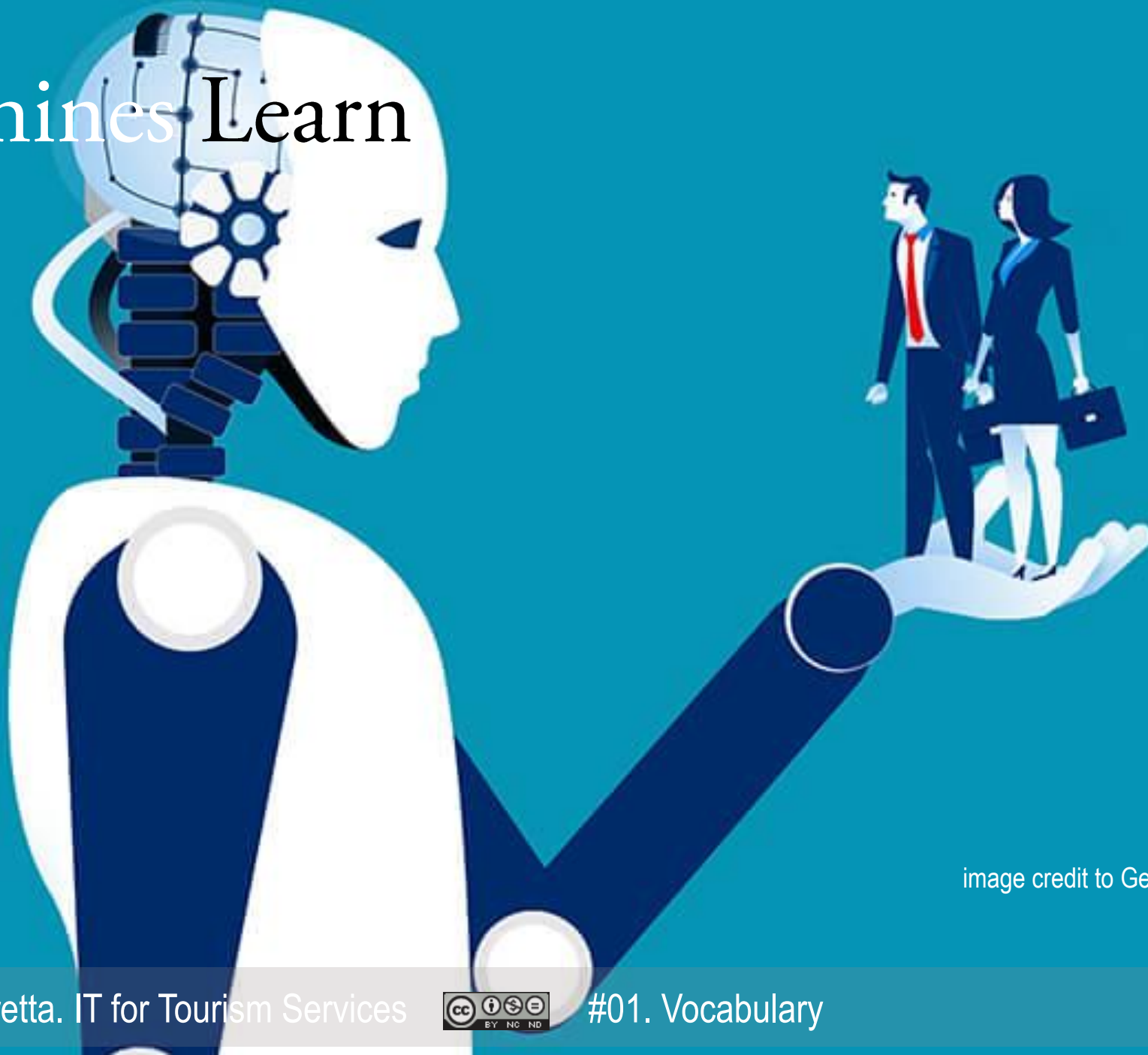


image credit to Genetic Literacy Project

e-Tourism. Destinations and POIs



But we deal with **tourism** here, and have to consider the vocabulary of tourism, too.

The main keyword in the vocabulary of tourism is **destination**. Destination is a debated word. Scholars and professionals have different positions about this word, according to their approach. We will discuss what a destination is later on.

More specific in the vocabulary of **e-Tourism** – that is, when tourism and digital meet – is the word **POI**.

POI is an acronym that stands for **Point of Interest**.

A POI is **every place on the Planet Earth** which

1. can be defined in terms of **latitude and longitude**
2. is **interesting** in terms of tourism.

Cathedrals, mountains huts, petrol stations, capital cities, shops... They are all POIs.



image credit to [GeoMarketing](#)

Digital and tourism, recent developments



Some **recent developments** have contributed and are still contributing to the ever increasing **integration** of **digital and tourism**.

We can summarize these developments in four points.

1. **Social networking platforms** – like Facebook, Twitter, or Instagram, as well as communities like Flickr, YouTube, and TripAdvisor itself – have turned the attention of tourist operators and destination managers (or, actually, some of them...) to **a better interaction** with tourists.



image credit to Vexels

Mobility, GPS and broadband



2. Mobile devices (tablets and **smartphones**) have emerged and consolidated on a global scale, making high computing power and constant connectivity available to a wider audience. Obviously, users take advantage of these opportunities during their travel experience, too.

3. Moreover, smartphones now “know” where their owners are located, thanks to the **Global Positioning System (GPS)**.

4. In addition, these current decades of the Internet era have witnessed the expansion of **high-speed connections**, or **broadband** – though broadband is far from being diffused.

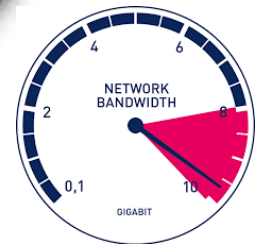


image credit to [Medium](#) and [Paessler](#)

Bandwidth



Let's start from considering the point about broadband. The concept is **bandwidth**.
How much water can pass through a pump?
How many bytes can a connection convey?

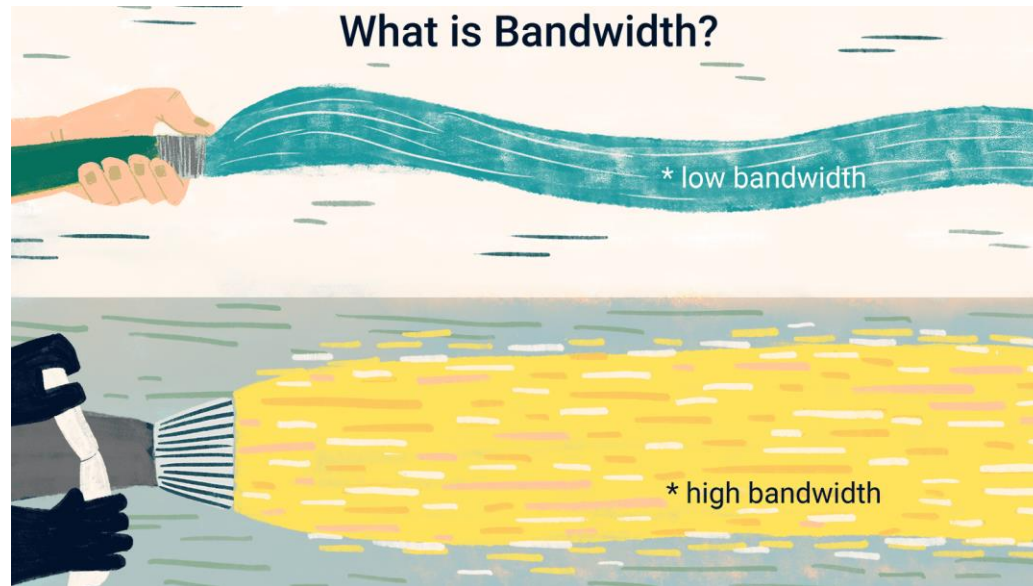


image credit to Lifewire

image credit to Paessler

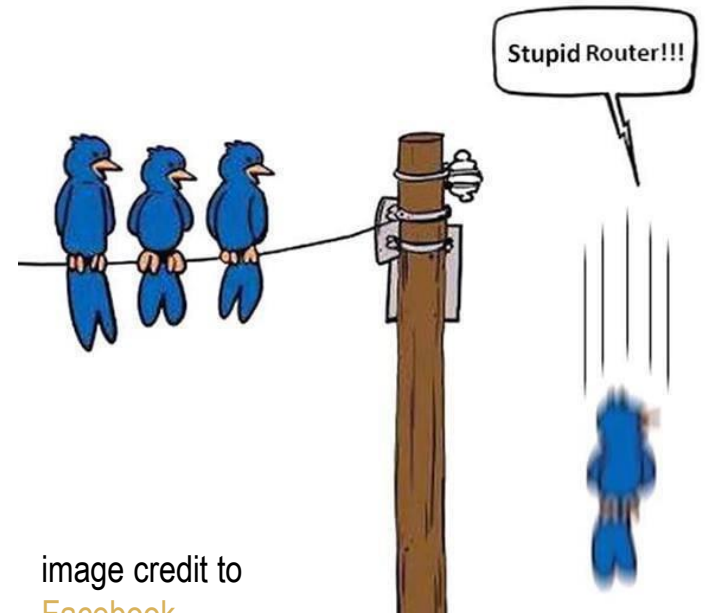
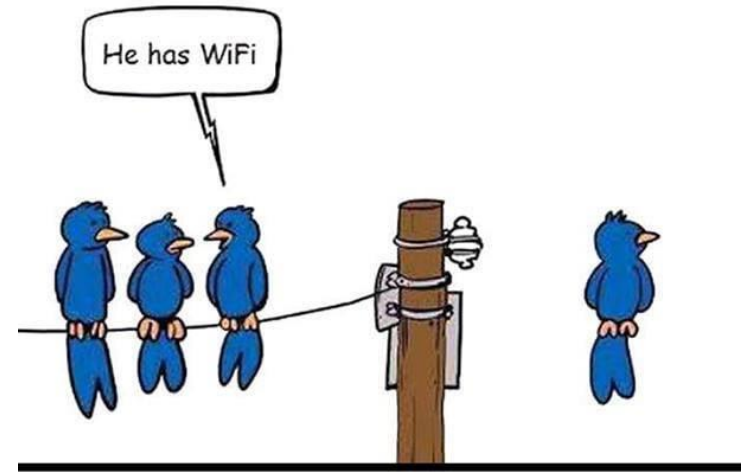
Bandwidth is an issue

We may happen to rely on an **optic fibre** connection, with the last portion of the network cable **physically** connected to our computer desktop. This is the best option ever.

We may also have an **ADSL** connection – previously mentioned here – with bytes reaching the desktop not over a dedicated cable but, in the “last mile” at least, through an old “**traditional**” phone cable. This is a partially worse condition.

More frequently, bytes make the “last mile” through radio signals rather than wires: **wireless**, “Wi-Fi”.

More uncertain. Yet very frequent, today.



“Weight” is an issue



Not always has a smartphone a good wireless **router** at hand.

It may well happen that – somewhere, sometimes – only a wireless **data connection** provided by a **telephone company** is available, often to prove costly.

It may be a “**fast**” connection – according to the so-called **4G** or **5G** specifications – but it may also be a “**slow**” connection. Not enough water...

As a practical consequence, all files meant to be shared – that is **all our files** – must **always** be as “**light**” possible. It’s true that the availability of bandwidth **increases** while technologies evolve. But bandwidth will **never** be **infinite**. Tools that measure **download** and **upload** bandwidth are found on the Web – a topic that we will reconsider later.

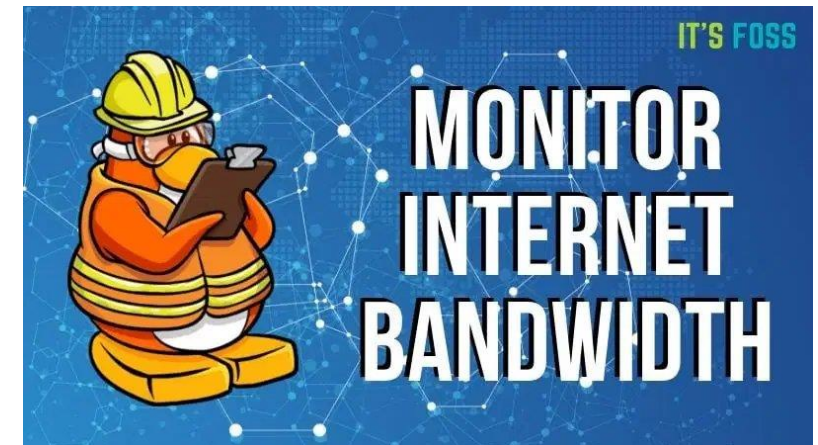


image credit to [it's FOSS](#)

Places and geography



The last theme in today's small vocabulary must be reserved to latitude and longitude. In fact, tourism is a spatial activity.

A geographic coordinate system is very much needed.

A geographic coordinate system enables every location on the Planet Earth to be specified by a set of numbers or letters.

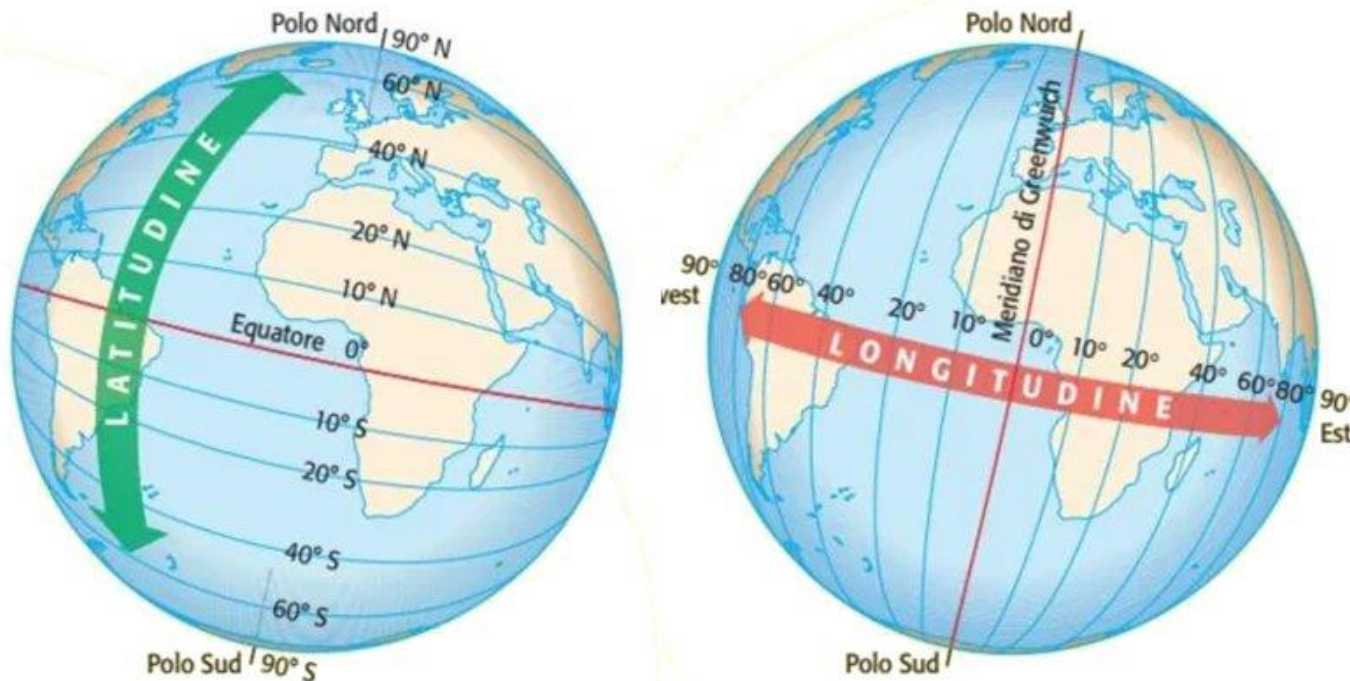


image credit to Maestra Mihaela


A latitude and a longitude

49°11'00 N, 02°07'00 W

Any place can be defined by its latitude and longitude.

image credit to jersey.com

49° 11' 00 N, 02° 07' 00 W




49°11'00.0"N 2°07'00.0"W
49.183333, -2.116667

Directions Save Nearby Send to your phone Share

English Channel
5VMM+88 Jersey
Add a missing place
Add your business

Photos



Photos

Jersey, Channel Islands, UK



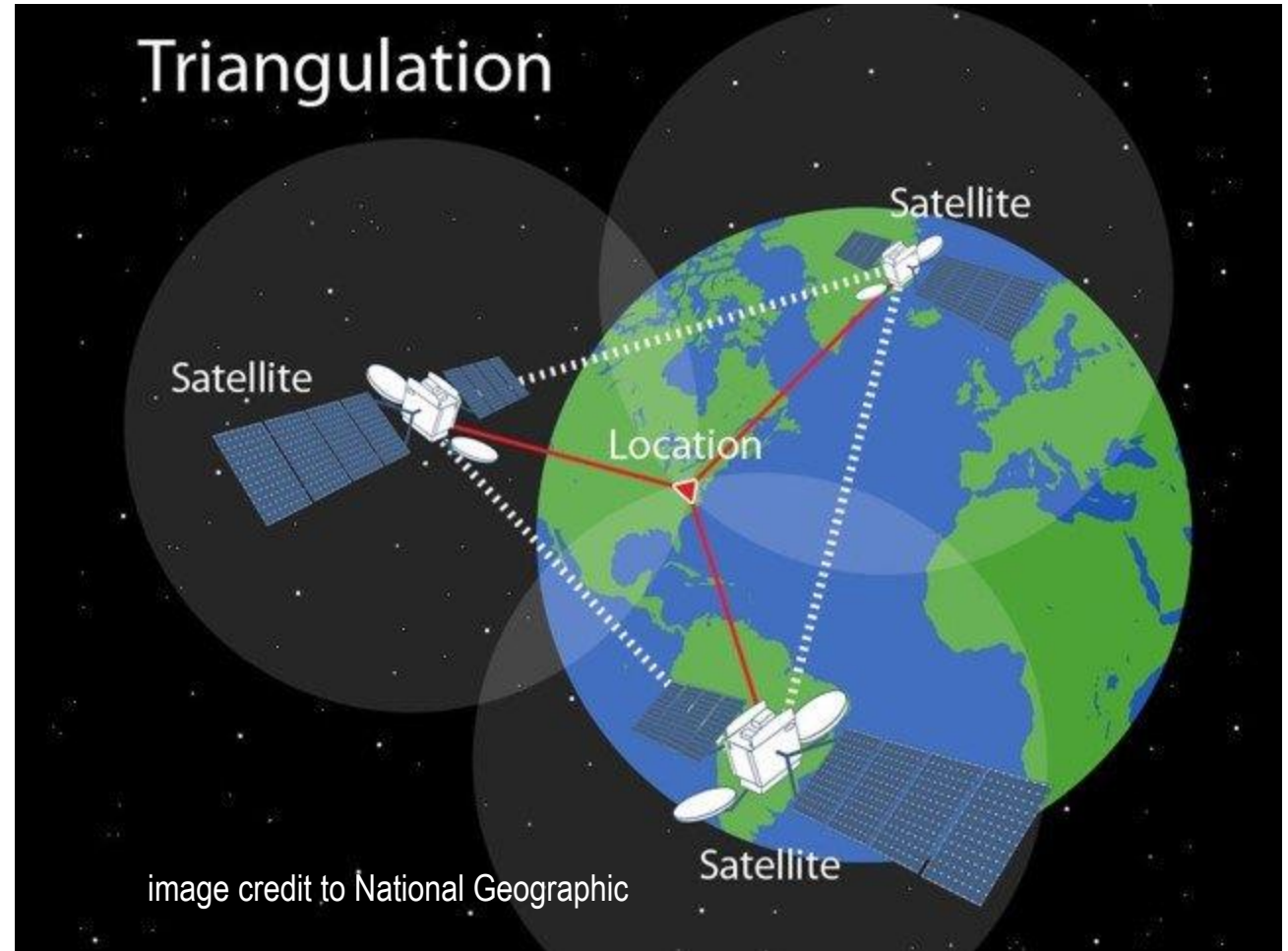
49°11'00 N, 02°07'00 W
49 degrees, 11 minutes north, 2 degrees, 7 minutes west

The Global Positioning System



The Global Positioning System (GPS) is a space-based Global Navigation Satellite System (GNSS) that provides location and time information in all weather, anywhere on or near the Earth, where there is an unobstructed line of sight to four or more GPS satellites.

Quite obviously, locations are defined in terms of latitude and longitude.



Global Positioning System(s)



The GPS system is maintained by the United States government and is freely accessible by anyone with a GPS receiver.

Current GPS-based devices include in car navigation systems (like Tom Tom) and – increasingly – smartphones like iPhones or Android-based mobile phones. There are more than one GNSS. Europe, e.g., is developing the Galileo GNSS.



image credit to www.gsa.europa.eu

Basics about GNSS

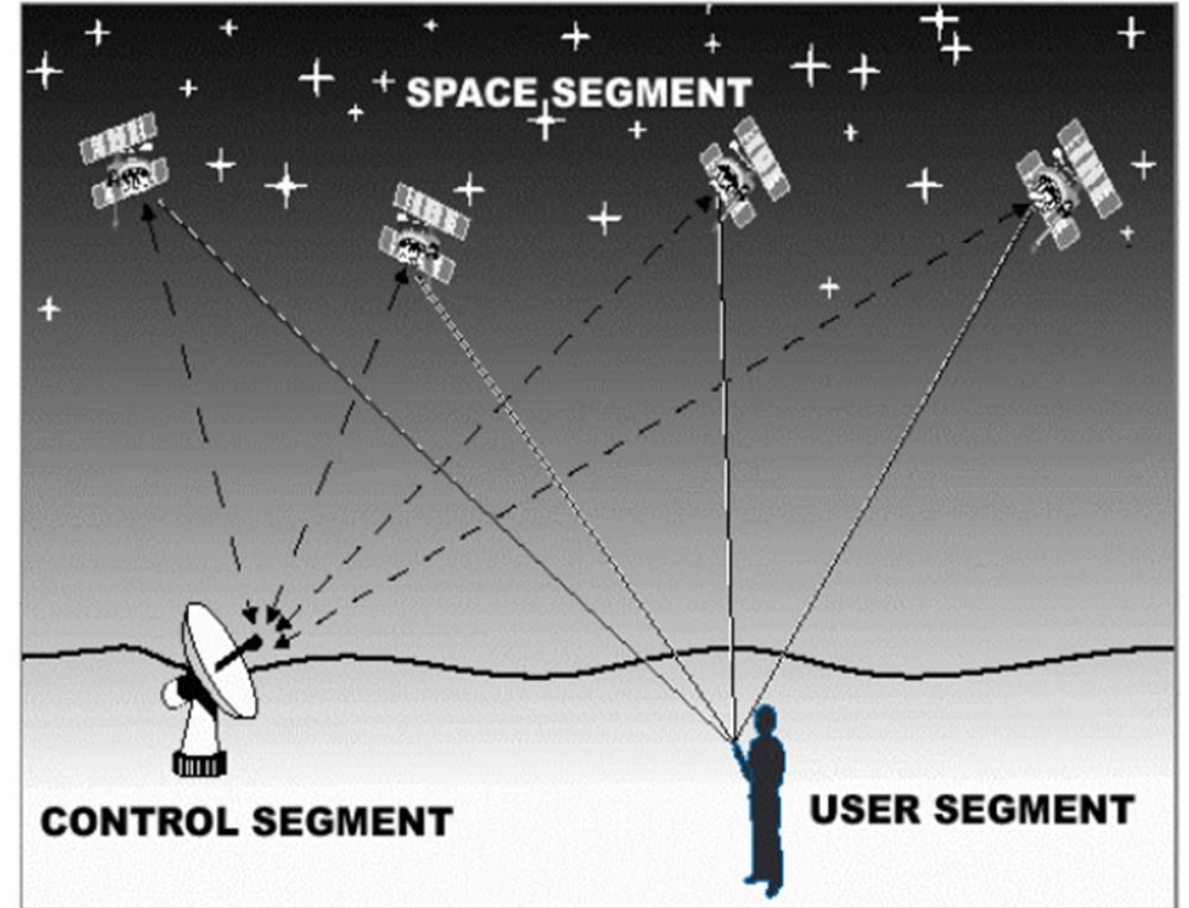


A set of satellites in a medium Earth orbit – the **Space Segment** – transmit radio signals containing the current time and data about their position.

An antenna in the device, or **User Segment**, measures the time that signals take to reach the device, and therefore its distances from the satellites.

Comparing distances allows to determine the device's position on the Earth.

A **Control Segment** placed on the Earth helps optimizing the digital process.



Key points

1. Words matter
2. Digital is based on numbers
3. Digital works on bits, rules...
4. ... and coding.
5. Bandwidth matters, too
6. Tourism needs POIs
7. Tourism needs geography



image credit to 30cc

Our calendar



Approaching the assessment

