#02. Networks, web presence

University of Bergamo

Master Course in Project and Management of Tourism Systems

Academic Year 2021-2022

IT for Tourism Services

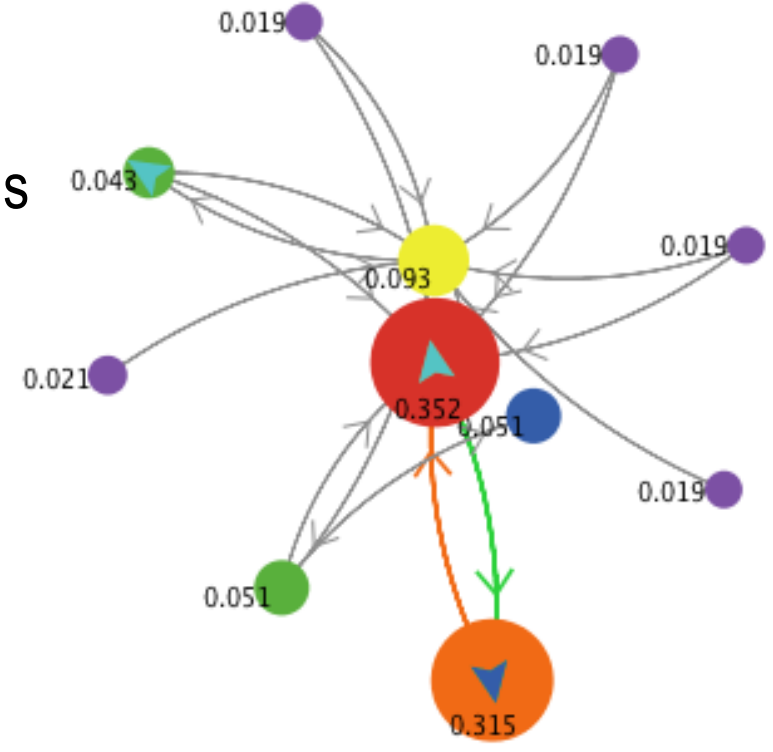


image credits to NetLogo, IconFinder

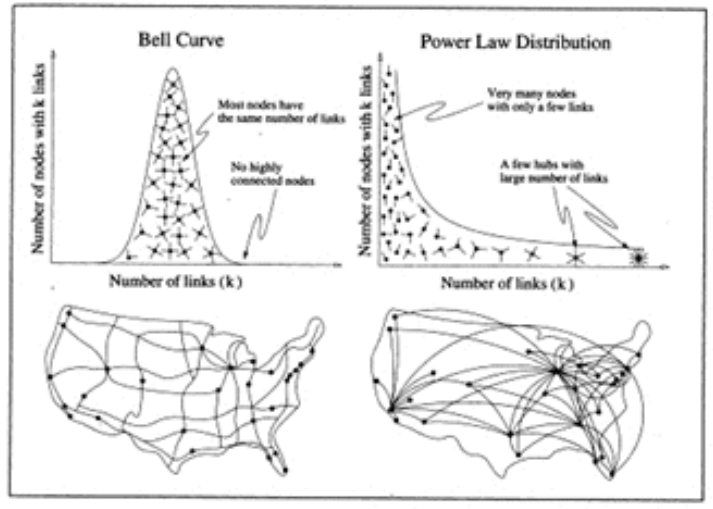


Figure 6.1 Random and Scale-Free Networks. *The degree distribution of a random network follows a bell curve, telling us that most nodes have the same number of links, and nodes with a very large number of links don't exist (top left). Thus a random network is similar to a national highway network, in which the nodes are the cities, and the links are the major highways connecting them. Indeed, most cities are served by roughly the same number of highways (bottom left). In contrast, the power law degree distribution of a scale-free network predicts that most nodes have only a few links, held together by a few highly connected hubs (top right). Visually this is very similar to the air traffic system, in which a large number of small airports are connected to each other via a few major hubs (bottom right).*

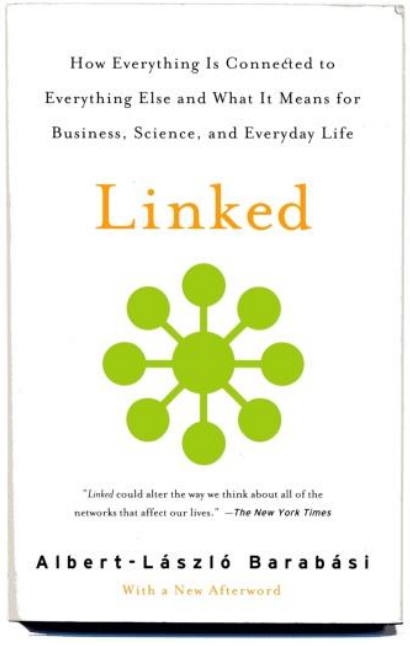
What are we talking about this time?

1. Graphs & Networks
2. Again, the Internet & The Web
3. Search Engines
4. The Web 2.0
5. Communities & UGC
6. Social Networks
7. Web Presence

Tripadvisor

Google

image credits to Mind42, IconFinder



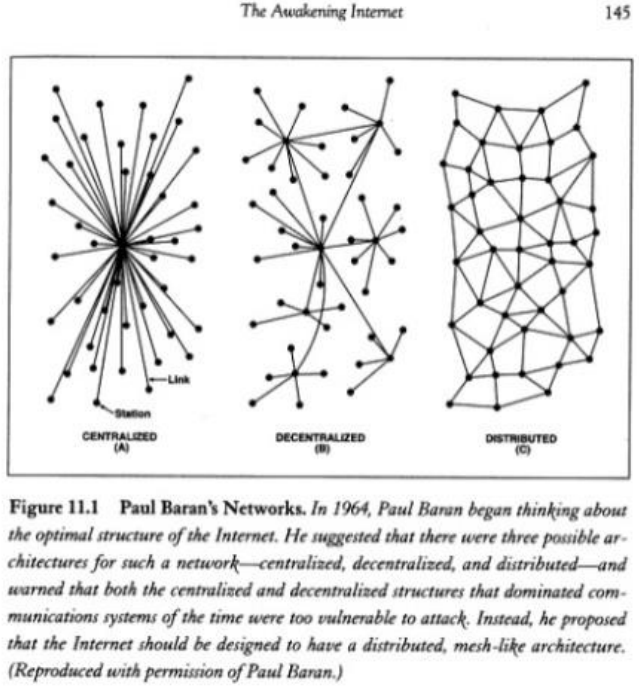


Figure 11.1 Paul Baran's Networks. *In 1964, Paul Baran began thinking about the optimal structure of the Internet. He suggested that there were three possible architectures for such a network—centralized, decentralized, and distributed—and warned that both the centralized and decentralized structures that dominated communications systems of the time were too vulnerable to attack. Instead, he proposed that the Internet should be designed to have a distributed, mesh-like architecture. (Reproduced with permission of Paul Baran.)*

Your main printed book

Linked is a book first published in 2002 by Albert-László Barabási, an American physicist of Hungarian origins born in 1967, and best known for his research in the field of networks.

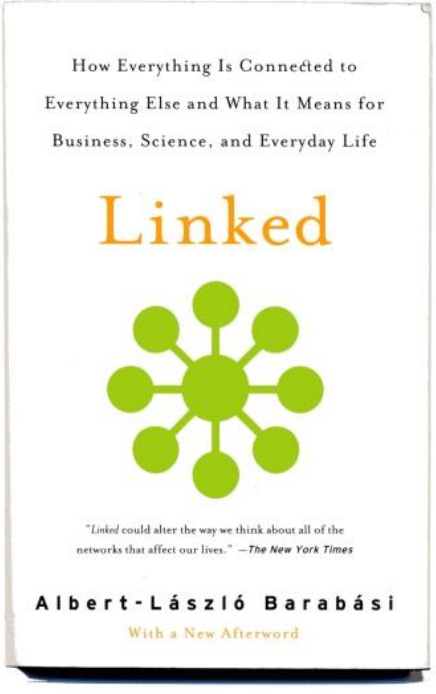
As far as these lectures and your assessment are concerned, Linked is the main printed book you have to read, understand, and be able to tell about.

Apart from the initial pages of Metadata, all the rest is downloadable files – like this you're reading now – and links to be visited.

But I promise: when I say you have to "read, understand, study, and be able to tell about" this book, I mean it.

Your main printed author

Barabási A.-L., Linked. How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life, Perseus, Cambridge, Massachusetts 2002 (chapters 1-12)



So, let's begin with reading pages 1 through 8 of Linked – loud.

But... Wait a minute!

Pages 1 through 8 of Linked contain 2,523 words, and 15,302 digits...

If we read them, it will take more than 16 minutes. Too much!

image credit to hxdata.chisa.edu.cn

“Linked” – Excerpts from pages 1 through 8

Let’s read some excerpts only. Your lecturer has abridged pages 1 through 8.

(Well... this cutting has left a logical gap, in fact. But you will certainly not notice it and get the meaning just the same.)

Through the following three pages of this presentation, we can read loud excerpts from pages 1 through 8, totaling 802 words, and 3,126 digits.

Our reading should take less than 4 minutes.

(In case you need to listen to the full introduction, or simply know more about Linked before holding the book in your hands, find an Mp3 file at https://kiwimilano.it/dct/links_2021-2022.asp#Networks)


image credit to hxdata.chisa.edu.cn

Yahoo!

"FEBRUARY 7, 2000, SHOULD HAVE BEEN a big day for Yahoo. Instead of the few million customers that daily flock to the Internet search engine, billions tried to enter the site. Such exploding popularity should have turned the company into the most valuable asset of the new economy.

There was a problem, however. They all arrived at the exact same time and not one of them asked for a stock quote or a pecan pie recipe. Rather, they all sent, in scripted computer language, the message 'Yes, I heard you!'

The next day the royals of the Web, Amazon.com, eBay, CNN.com, ETrade, and Excite, fell under the same spell: They too were obliged to serve billions of ghosts making the same fruitless inquiry that had handicapped Yahoo. True consumers, with shiny credit cards ready for purchases, were forced to wait on the side lines."

… Yahoo! (continued)

"Early news reports construed the shutdown of the leading e-commerce sites to be the work of a group of sophisticated hackers.

Surprisingly, the high-profile operation of the Federal Bureau of Investigation did not lead to the much-anticipated cyberterrorist organization. Instead, the FBI arrived at the suburban home of a Canadian teenager.

Hiding behind the pseudonym MafiaBoy, this fifteen-year-old successfully halted the operations of billion-dollar companies with access to the best computer security experts in the world."

… and Paul…

"The early Christians were nothing more than a renegade Jewish sect. There is no historical evidence that their spiritual leader, Jesus of Nazareth, ever intended to have an impact beyond Judaism. His ideas were difficult and controversial enough for Jews, and reaching the gentiles seemed particularly hopeless. Despite the odds, close to two billion people call themselves Christian today.

How did that happen? How did the unorthodox beliefs of a small and disdained Jewish sect come to form the basis of the Western world's dominant religion?

Many credit the triumph of Christianity to the message offered by the historical figure we know today as Jesus of Nazareth."

… Paul (continued).

"Today, marketing experts would describe his message as 'sticky'— it resonated and was passed down by generations while other religious movements fizzled and died. But credit for the success of Christianity in fact goes to an orthodox and pious Jew who never met Jesus.

While his Hebrew name was Saul, he is better known to us by his Roman name, Paul. Paul's life mission was to curb Christianity. He used scourging, ban, and excommunication to uphold the traditions and to force the deviants to adhere to Jewish law.

Nevertheless, according to historical accounts, this fierce persecutor of Christians underwent a sudden conversion in the year 34 and became the fiercest supporter of the new faith, making it possible for a small Jewish sect to become the dominant religion in the Western world for the next 2,000 years."

Thinking in terms of networks

"There are huge differences between MafiaBoy and Paul: MafiaBoy's was an act of destruction. Paul, despite his initial intentions, became a bridge builder between early Christian communities.

But the two have something important in common: Both were masters of the network.

Paul and MafiaBoy succeeded because we are all connected. Our biological existence, social world, economy, and religious traditions tell a compelling story of interrelatedness. As Jorge Luis Borges put it, 'everything touches everything.'

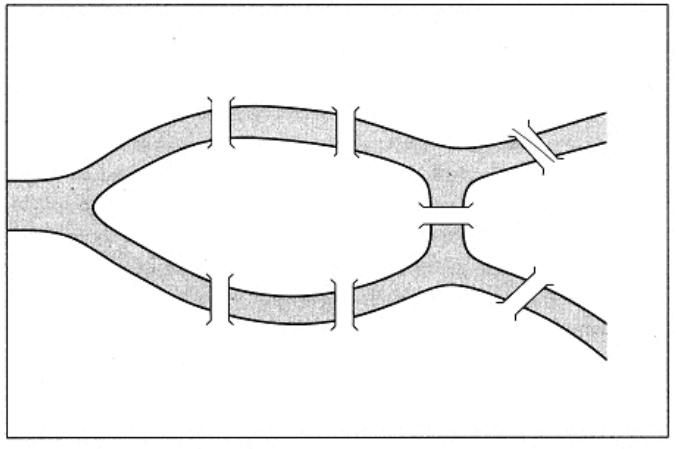
This book has a simple aim: to get you to think networks. It is about how networks emerge, what they look like, and how they evolve. It shows you a Web-based view of nature, society, and business, a new framework for understanding issues ranging from democracy on the Web to the vulnerability of the Internet and the spread of viruses."

Euler in Königsberg

As far as we now, the first man who ever had a Web-based view of something was a Swiss mathematician, Leonhard Euler (1707-1783), who wanted to solve a mind puzzle.

The town of Königsberg is crossed by a river, the Pregel, having an island connected by seven bridges.

Königsbergers wondered: “Can one walk across the seven bridges and never cross the same one twice?”



Euler's, his graph, and his proof

Euler solved the problem by thinking of islands and walks over bridges in mathematical terms, as points and lines, making up a graph.

What was Euler's proof?

To quote Barabási, "Nodes with an odd number of links must be either the starting or the end point of the journey. A continuous path that goes through all bridges can have only one starting and one end point. Thus, such a path cannot exist on a graph that has more than two nodes with an odd number of links."

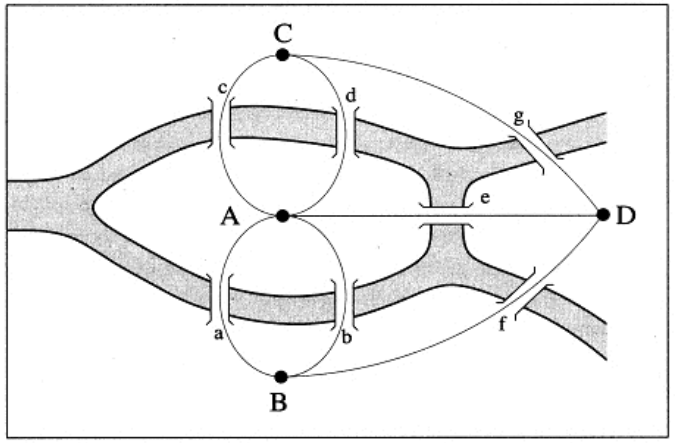


Figure 2.1 Königsberg Bridges. *The layout of Königsberg before 1875, with Kneiphof island (A) and the land area D caught between the two branches of the Pregel River. Solving the Königsberg problem meant finding a route around the city that would require a person to cross each bridge only once. In 1736, Leonhard Euler gave birth to graph theory by replacing each of the four land areas with nodes (A to D) and each bridge with a link (a to g), obtaining a graph with four nodes and seven links. He then proved that on the Königsberg graph, a route crossing each link only once does not exist.*

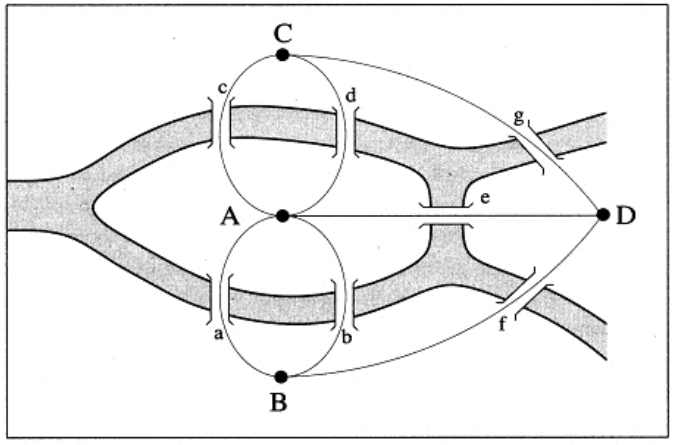
From graphs to networks

But the proof as such is not relevant here. We're not supposed to study mathematics or be mathematicians. What matters is that in the 18C someone began to have a web-based view of the world.

During the centuries, we have come to call Euler's points as nodes, his lines as links, and his graphs as networks.

Today, we call a link a connection between two webpages.

Well, Euler's Königsberg is where it all began.



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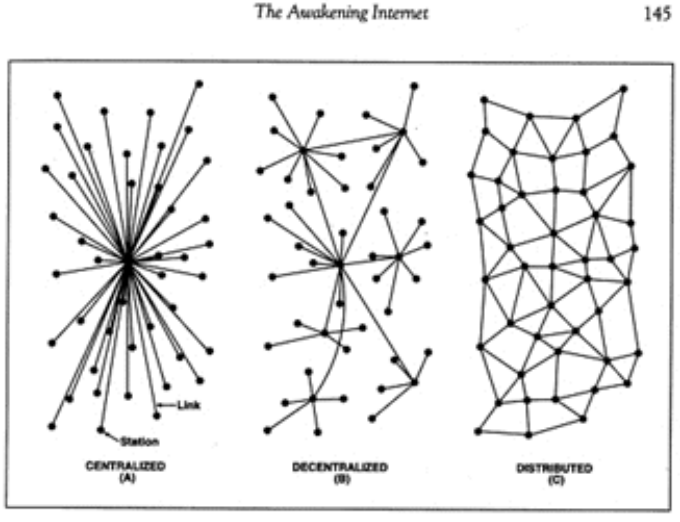
The Internet as a network

As you know, webpages travel by the millions along nodes of the Internet – which is clearly a network.

In 1964, Paul Baran advised on the architecture of the Internet, which was soon to come, underlining that

- a centralized one is too vulnerable;
- a decentralized one might be better;
- but the only real solution would be offered by a distributed network.

Today web pages always arrive, somehow, because they may travel through the Internet following any of very many available paths.



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The Internet, more or less

As you may remember, we introduced this point already when dealing with digital.

- A client computer – say, your computer – sends to a server computer a message, which is split in packets of bytes according to the TCP (Transmission Control Protocol). The packets are sent across the Internet.
- Typically, the message may ask to reach a web page according to the http (hypertext transfer) protocol, request to get a specific file according to the ftp (file transfer) protocol, or contain a text according to the e-mail protocol.
- Every packet contains, among other things, the "names" of the target server and the client server – to make it short, their IP (Internet Protocol) addresses.
- It doesn't matter which ways every packet travels across the Internet to reach the server and then be back. It matters that packets "know" which server they must reach, and which position every packet has to regain at the arrival.

Internet packets

Well, actually things are a bit more complicated.

This example is about an e-mail message

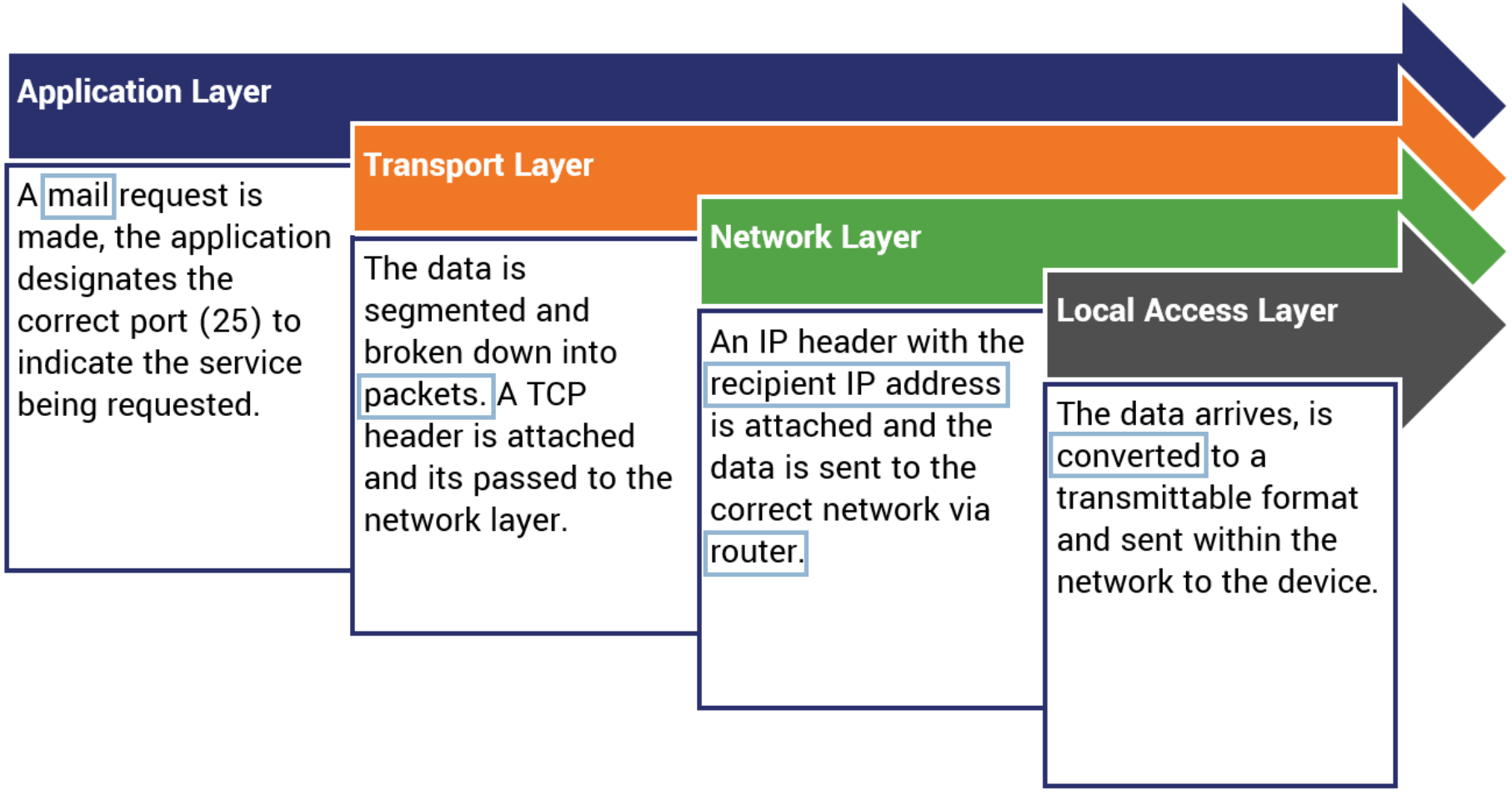


image credit to VpnStore

Internet routing

Anyway, splitting and routing across a distributed network are the crucial factors.

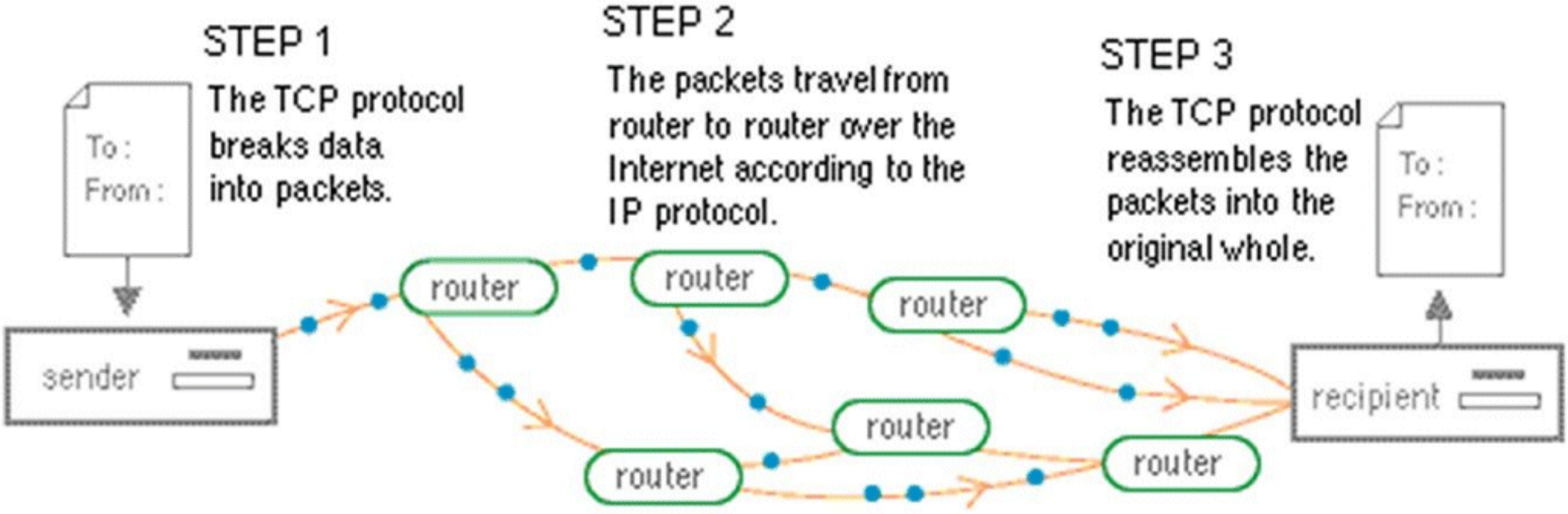


image credit to Pinterest

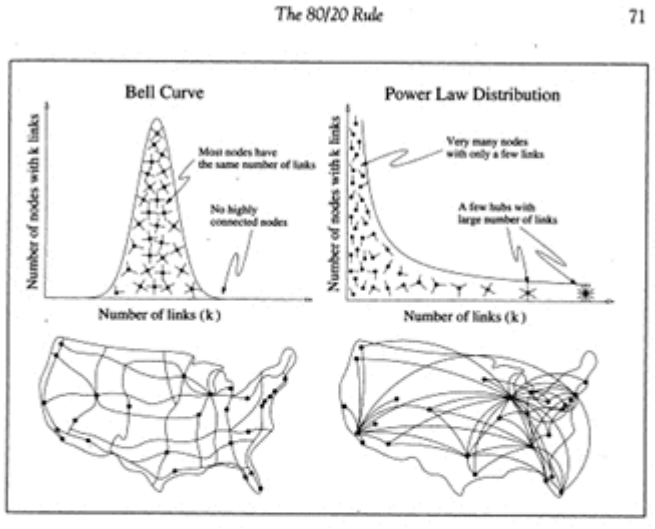
Scale-free networks, and hubs

Still talking about different sorts of networks, Barabási has proved that most networks are not like highway networks which connect major cities one another, each city having about the same number of roads or links.

Nodes of such “highway” networks connect rather regularly, on a scale, according to a Bell Curve.

Most networks, instead, behave like airlines using a few hub airports. Some nodes are hubs, having many more links than the other nodes.

Most networks connect according to a Power Law. Most networks are scale-free.



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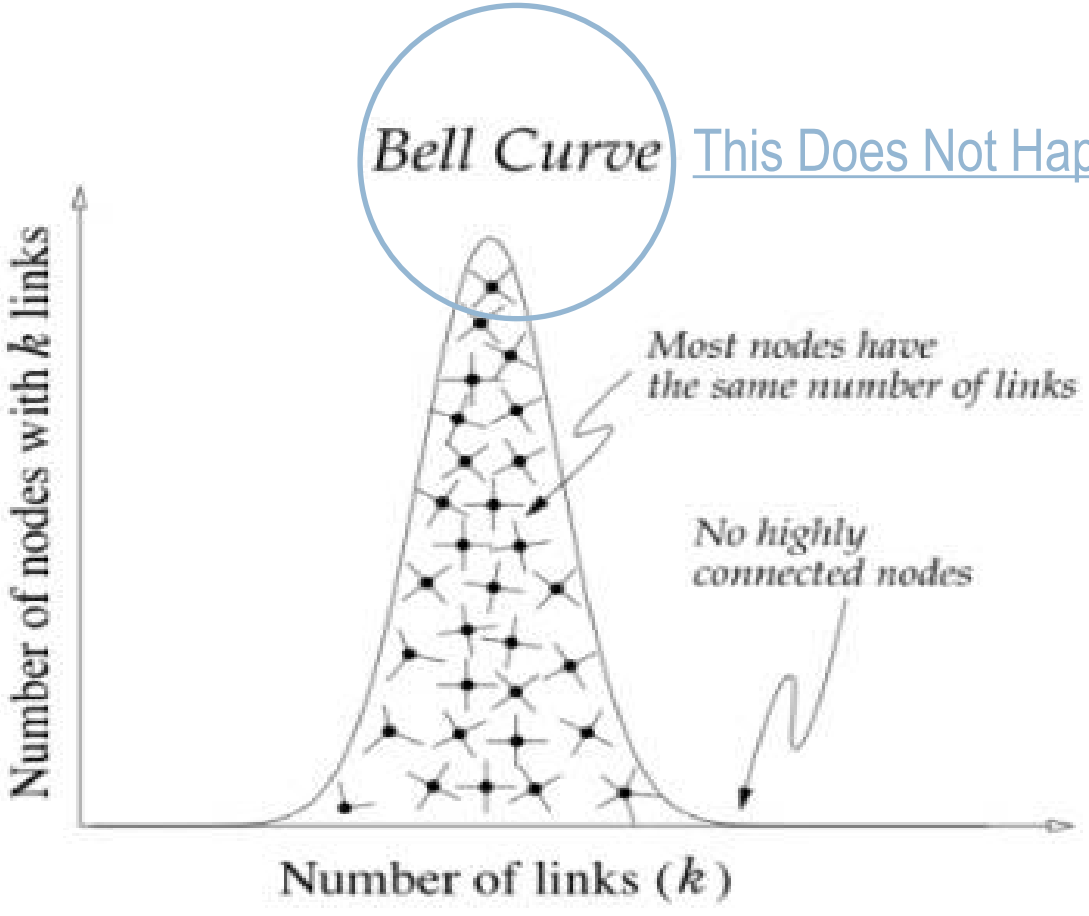
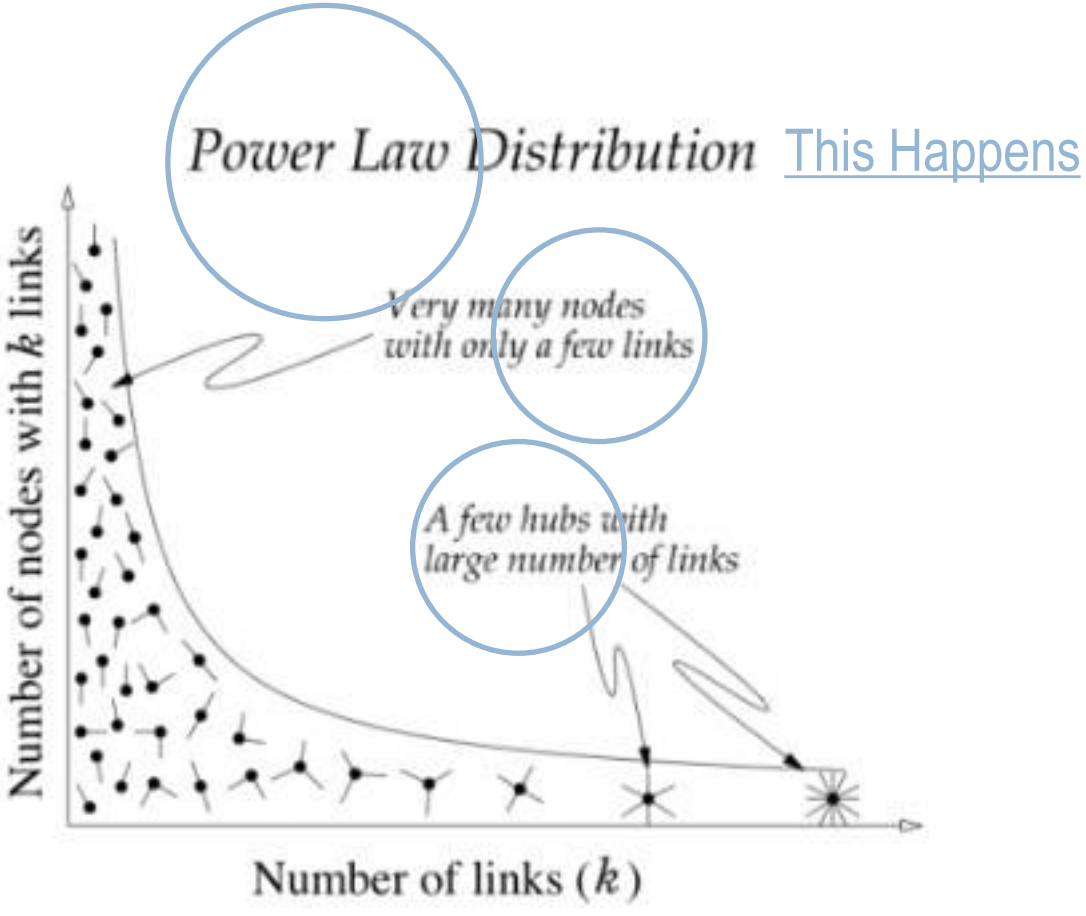
Bell Curve and Power Law





Number of nodes in the axis of ordinates, number of links in the axis of abscissae.

The Web & search engines

Does the World-Wide Web behave like most networks? Yes, it does. A few nodes (or websites) have many more links than all the others. They are hubs.

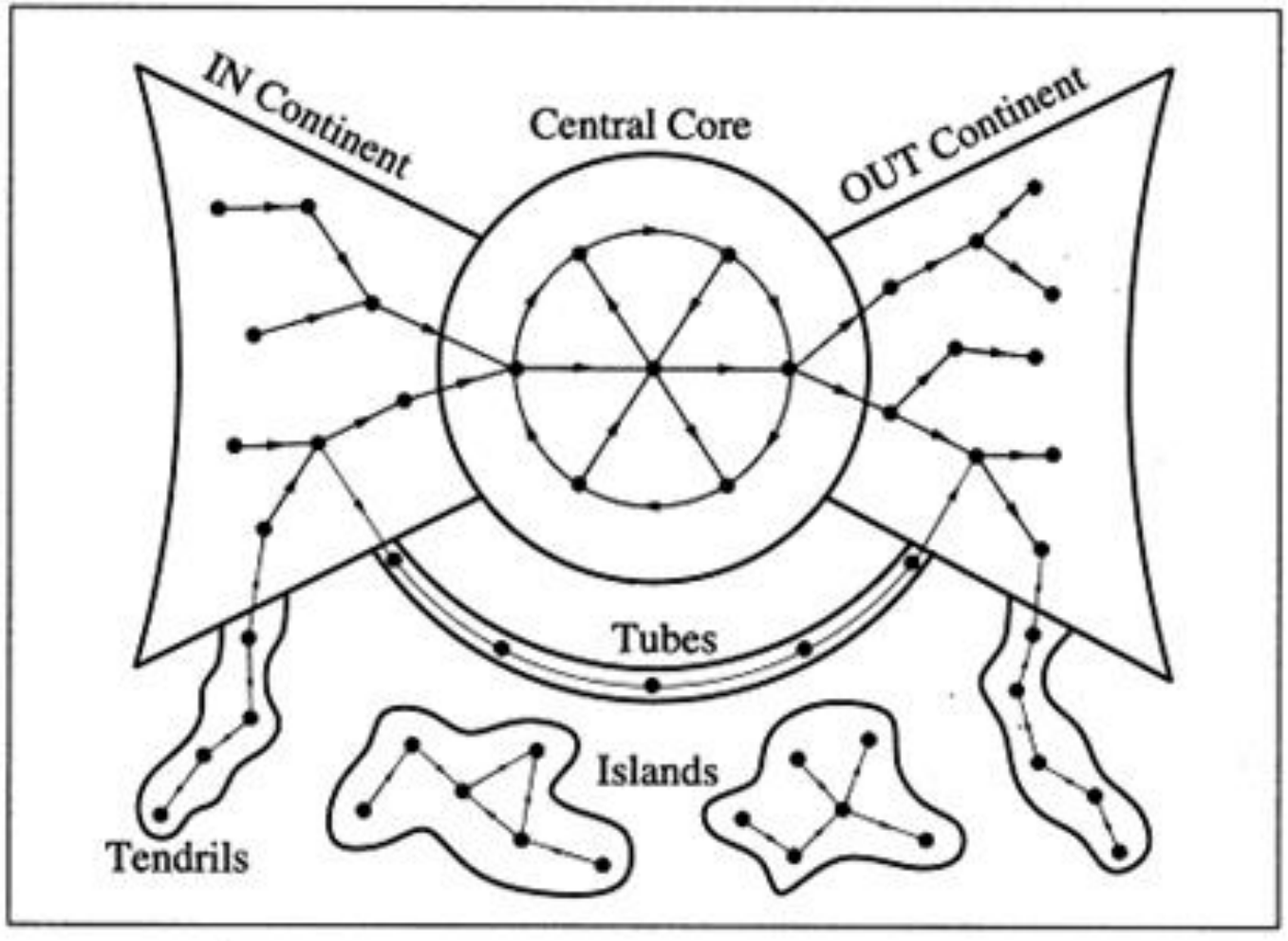
Obviously, since search engines like Google or Bing link to a lot of other websites, they are much “stronger” websites than the others. They are hubs.

And which websites do search engines display first, when you search according to your keywords? Search engines display first the websites with a higher number of links, according to the chosen keywords. They display first the most linked sites.

Conclusion? The more we link, the better our website ranks on search engines.

(Of course, the relationship between number of links and popularity is not a direct one. The reliability of the website and its maintenance also matter, as does the proportion between out links and backlinks. We will go deeper into this when dealing with analytics.)

Please, do not become islands...



A few hubs with a large number of links makes the Central Core of the Web.

Conversely, most websites are either IN or OUT Continents.

They tend to become Tendrils – if still indexed by search engines – and can ultimately turn into Islands.

Web oligopolies – like search engines

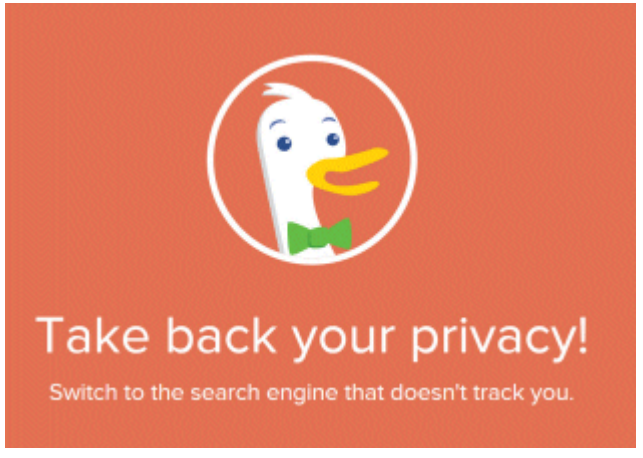
Since the Web behaves like most networks, it is not surprising that some websites belong to an oligopoly of hubs and become incrementally stronger.

Each time we search in Google, Bing or DuckDuckGo, we accept and confirm that Google, Bing or DuckDuckGo are strong. We enhance their status as hubs.

But there's more. Think about this, the social way...

Google

Bing



Social oligopolies – like Facebook

Each time we post something on Facebook, we contribute to make Facebook stronger.

And, moving to tourism, each time a tourist comments on TripAdvisor, she/he contributes to make TripAdvisor stronger.

Why? Because every time someone posts on Facebook or TripAdvisor a piece of User-Generated Content (UGC), she/he confirms that they are hubs, often adds new links to them, and makes them stronger.

Ranking, SEO

The evaluation that search engines provide of a webpage, also called the webpage's "position", is measured in terms of ranking.

Ranking is referred to a single webpage, but it is widely assumed that a whole website's ranking is that website's home page ranking.

To quote Wikipedia, "a good ranking in the search engines provides a steady supply of interested visitors/customers, while a poor one sinks any idea into oblivion."

There is a whole industry called SEO, Search Engine Optimization, dedicated to obtain good web rankings.

The original and simplest unit of measure for ranking is Google's PageRank.

Although Google has officially abandoned it, and relies on more ranking technics now, PageRank is still at work.

PageRank

To quote Wikipedia once again,
"PageRank is a link analysis algorithm – named after Larry Page and used by the Google Internet search engine – that assigns a numerical weighting to each element of a hyperlinked set of documents, such as the World Wide Web, with the purpose of measuring its relative importance within the set."

The PageRank scale of weight is simply 0/10.

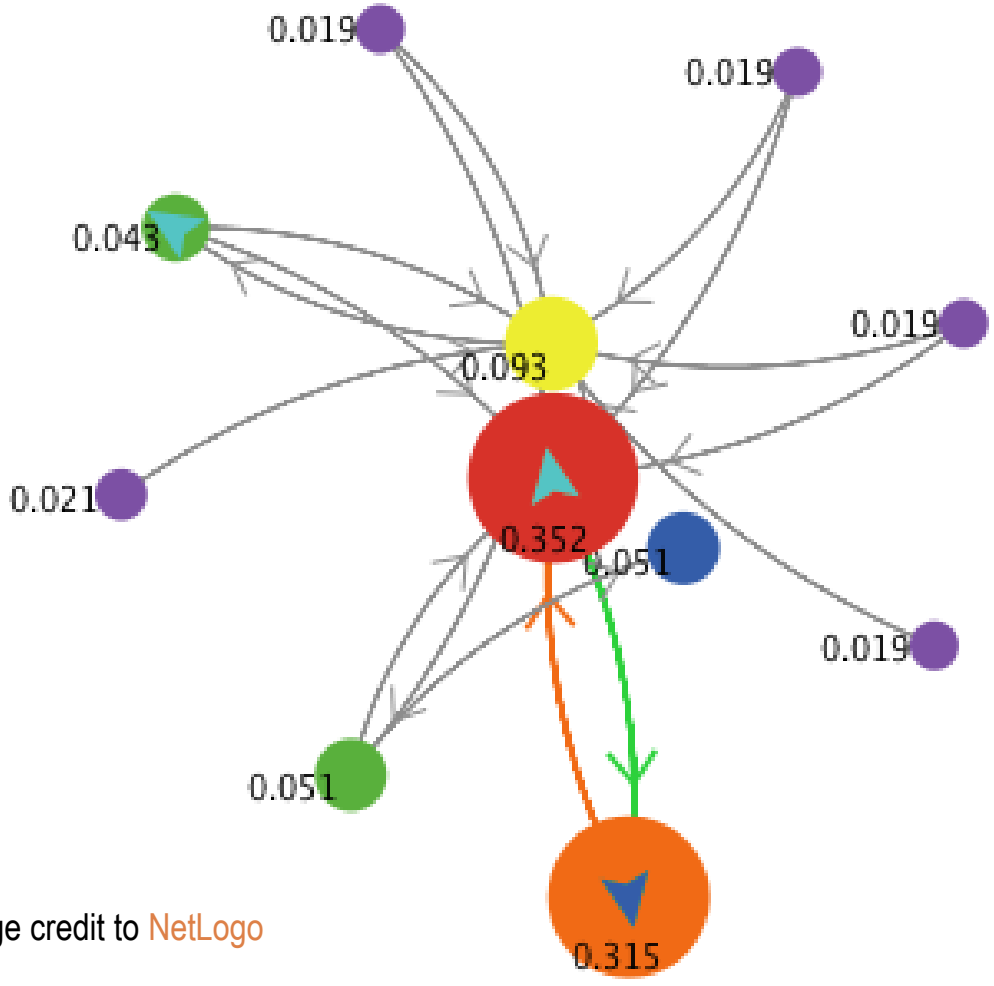


image credit to NetLogo

PageRank: industry and academia

The PageRank algorithm may be applied to any collection of entities with reciprocal quotations and references.

The name “PageRank” is a trademark of Google, and the PageRank process has been patented (U.S. Patent 6,285,999).

However, the patent was assigned to Stanford University and not to Google. Google had exclusive license rights on the patent from Stanford University.

The university received 1.8 million shares of Google in exchange for use of the patent; the shares were sold in 2005 for $336 millions.

By the way, the patent formally expired in 2019.

Ranking tools

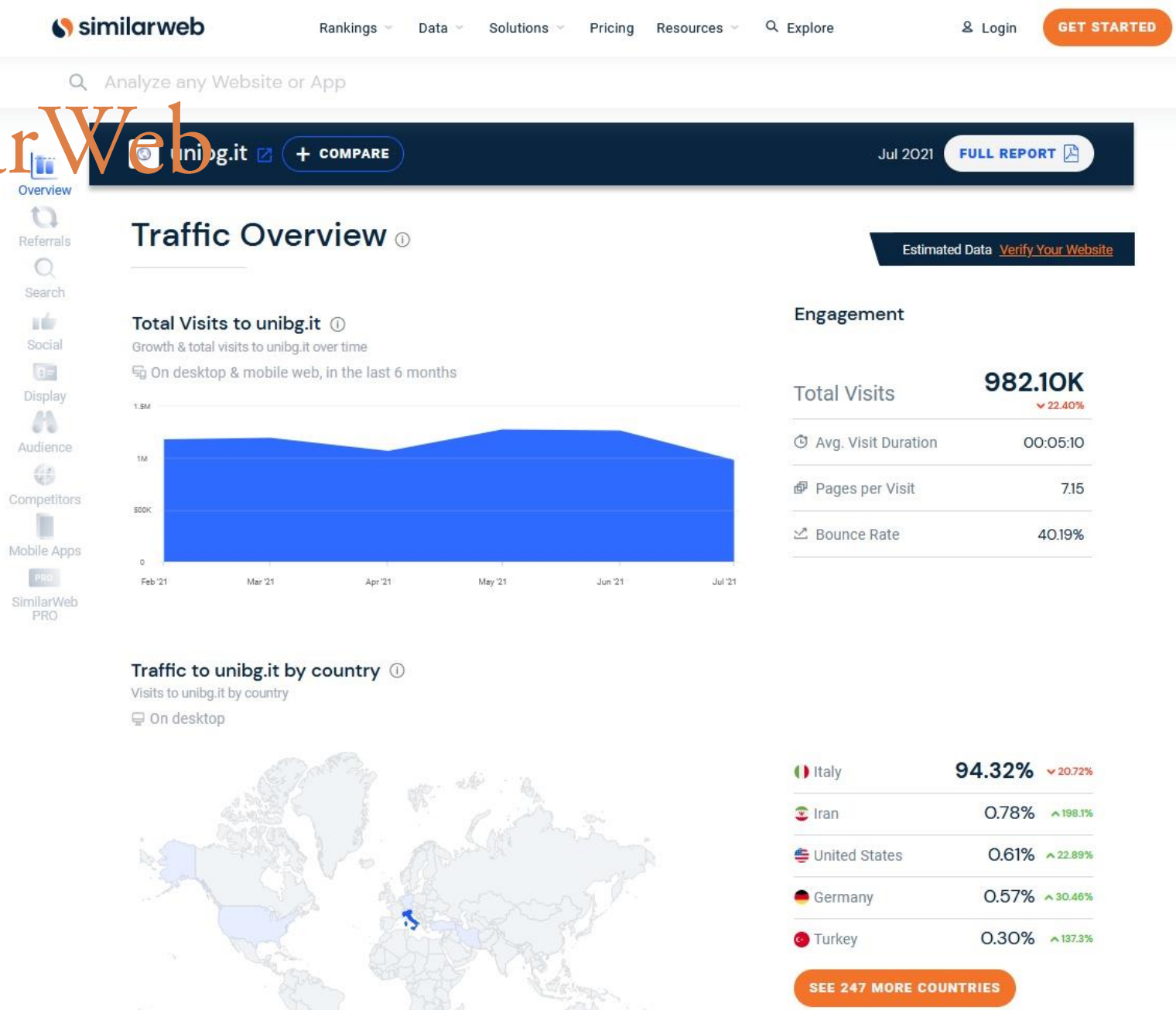
How do we come to know the rank of a specific webpage, or – somehow – of a specific website?

Some dedicated tools are available on the Web, to retrieve information on how and how much webpages and websites are visited. A popular tool like these is SimilarWeb.

Moreover, some toolbars exist, that provide a relatively comprehensive access to this sort of ranking data. For instance, SimilarWeb is also available as a Firefox Add-On.

(Please take note, however, that SimilarWeb is a privacy-invasive platform.)

SimilarWeb



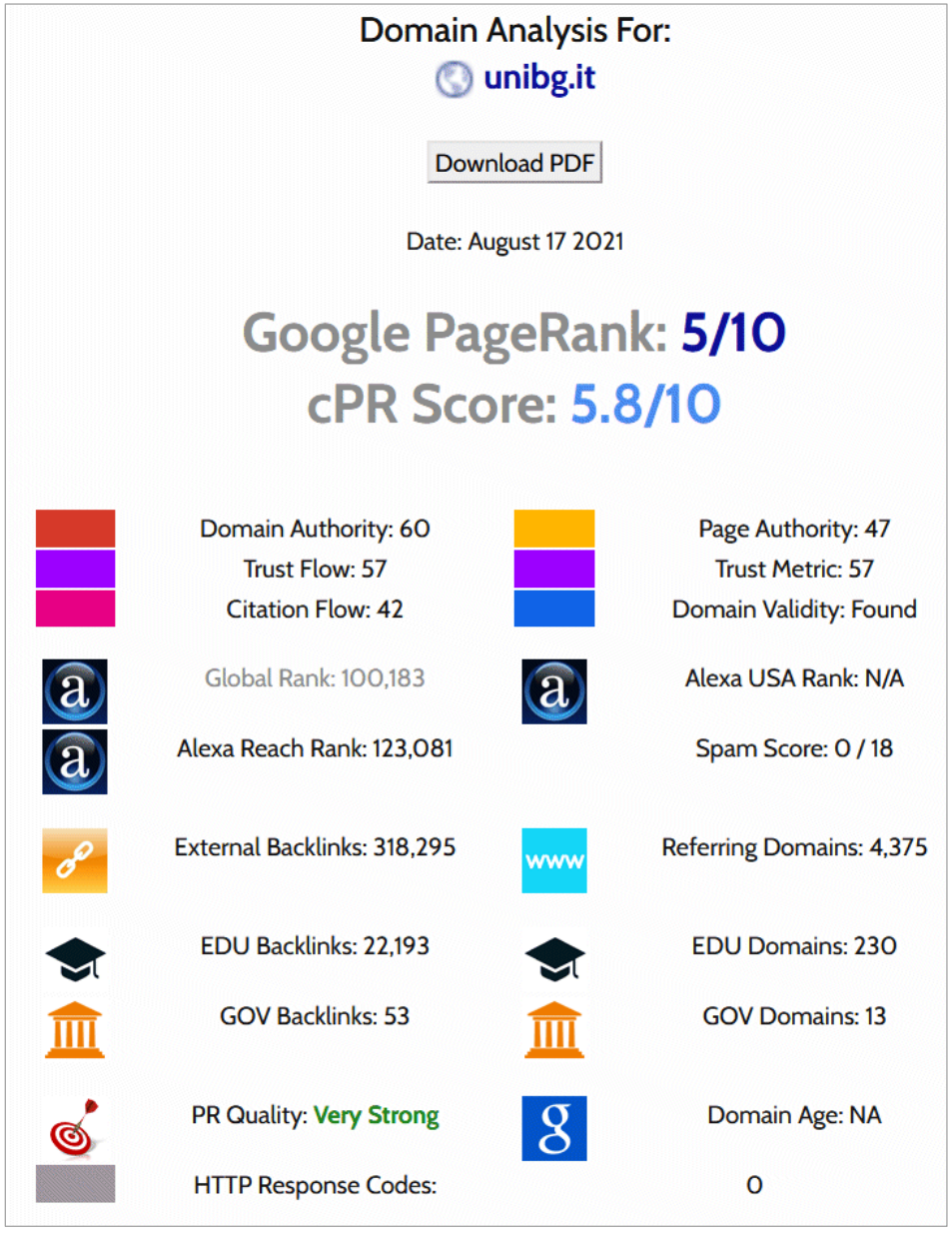
This is part of the data found by SimilarWeb about the website from our University on August 17, 2021.

- Total visits
- Average visit duration
- Pages per visit
- Bounce rate
- Visits by country

CheckPageRank

However, if we simply want to know the PageRank of a specific webpage on a 0/10 scale, we may use tools like CheckPageRank.

As you see, more data are available. Again, we will go through some of them when dealing with analytics.



Tim Berners-Lee

As most of us know, the World Wide Web is an internet-based hypermedia initiative for global information sharing.

It was invented by Tim Berners-Lee, a graduate from Oxford, while at CERN, the European Particle Physics Laboratory, in 1989.

Berners-Lee wrote the first web client and server in 1990. His specifications of URIs (Uniform Resource Identifier, which in the case of webpages are called URL, Uniform Resource Locator), http and html were refined as Web technology spread.

If the Web exists, it's because of Europe.

Its rules, or recommendations, are run by the W3C, https://www.w3.org/

Web 1.0 and Web 2.0

The original Web ambience – now commonly referred to as "Web 1.0" – has gradually turned into a more complex world, where interaction, multimedia and databases have made their appearance.

This shift has been informally called "Web 2.0" after a 2005 definition by Tim O'Reilly.

Web 1.0		Web 2.0
DoubleClick	-->	Google AdSense
Ofoto	-->	Flickr
Akamai	-->	BitTorrent
mp3.com	-->	Napster
Britannica Online	-->	Wikipedia
personal websites	-->	blogging
evite	-->	upcoming.org and EVDB
domain name speculation	-->	search engine optimization
page views	-->	cost per click
screen scraping	-->	web services
publishing	-->	participation
content management systems	-->	wikis
directories (taxonomy)	-->	tagging ("folksonomy")
stickiness	-->	syndication

Dynamic websites

Perhaps the most radical shift between the "Web 1.0" and the "Web 2.0" has been rooted in massive dependence upon databases.

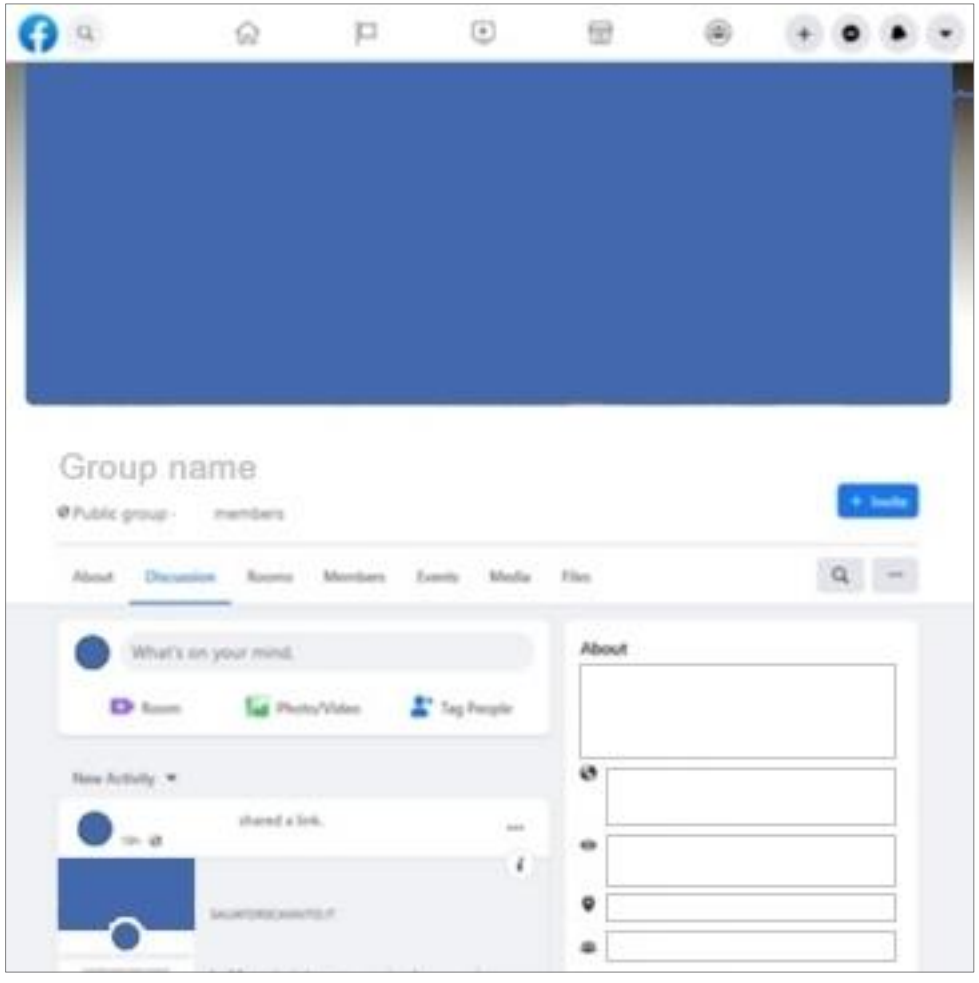
The original websites were simply text (words, pictures, diagrams etc.) written in html language once and for all. They were static.

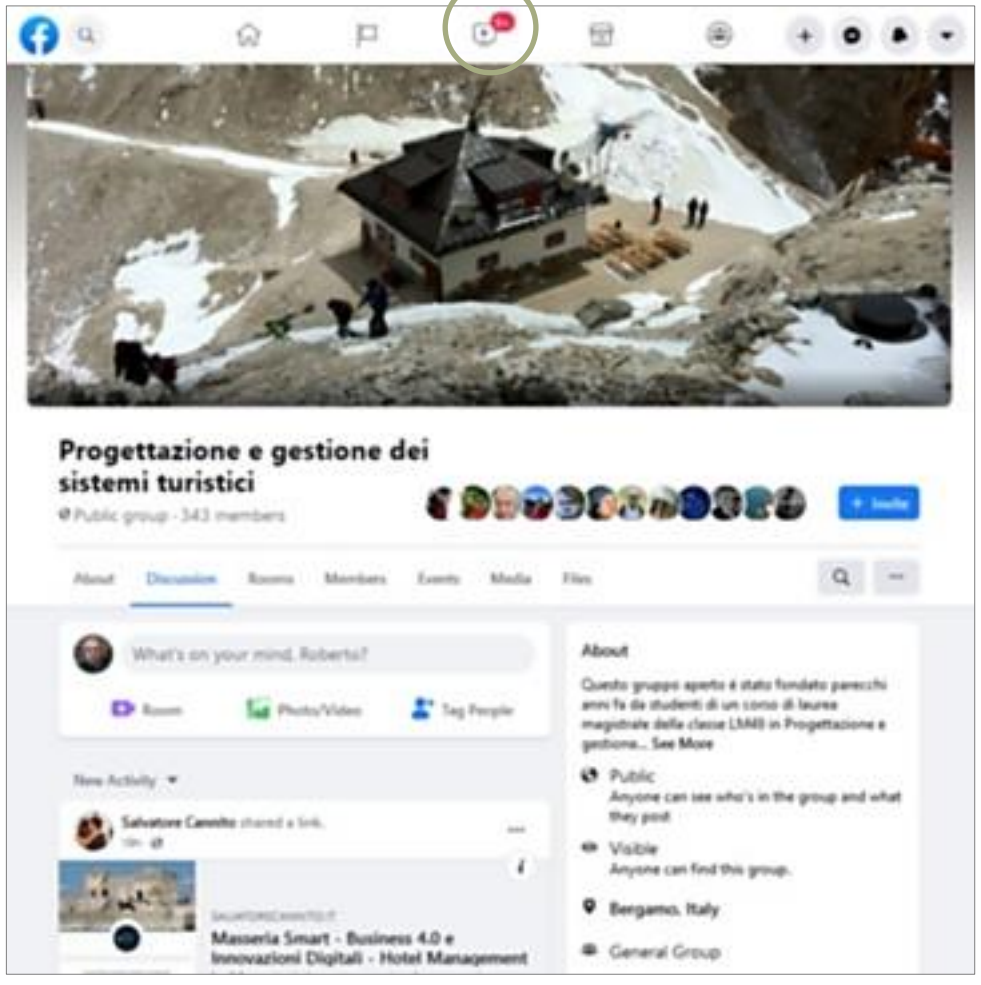
Most websites today are dynamic, instead. Each webpage's content is not there once and for all. Rather, its content is generated on the fly from the content of a database.

The webpages' layout is provided by a template, while each webpage's content is generated on the fly from the content of records stored in a database.

Let's consider an example of an empty template and its populated version.

A template, and its dynamic content

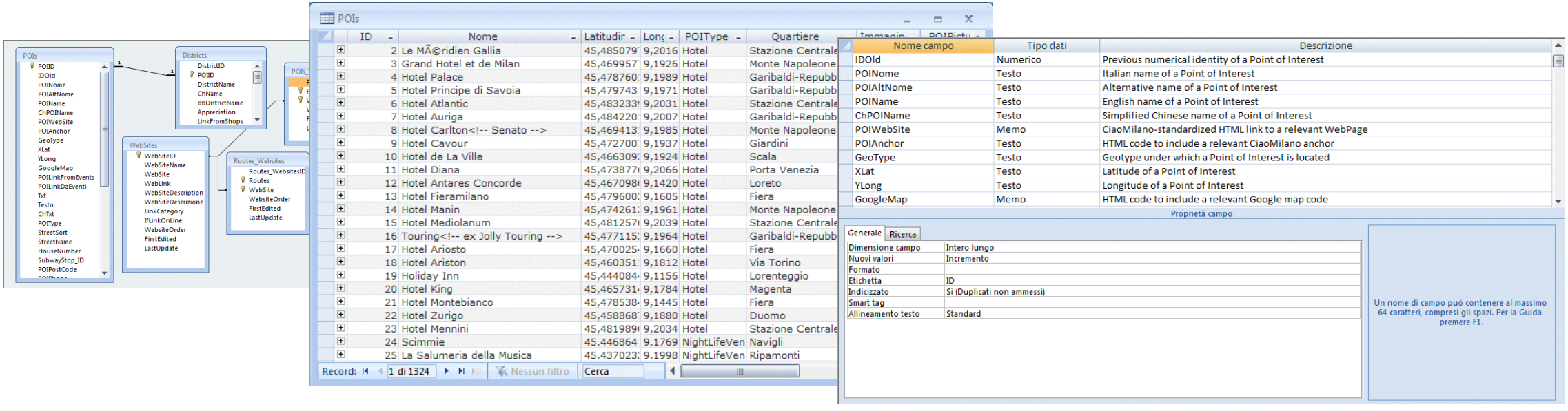




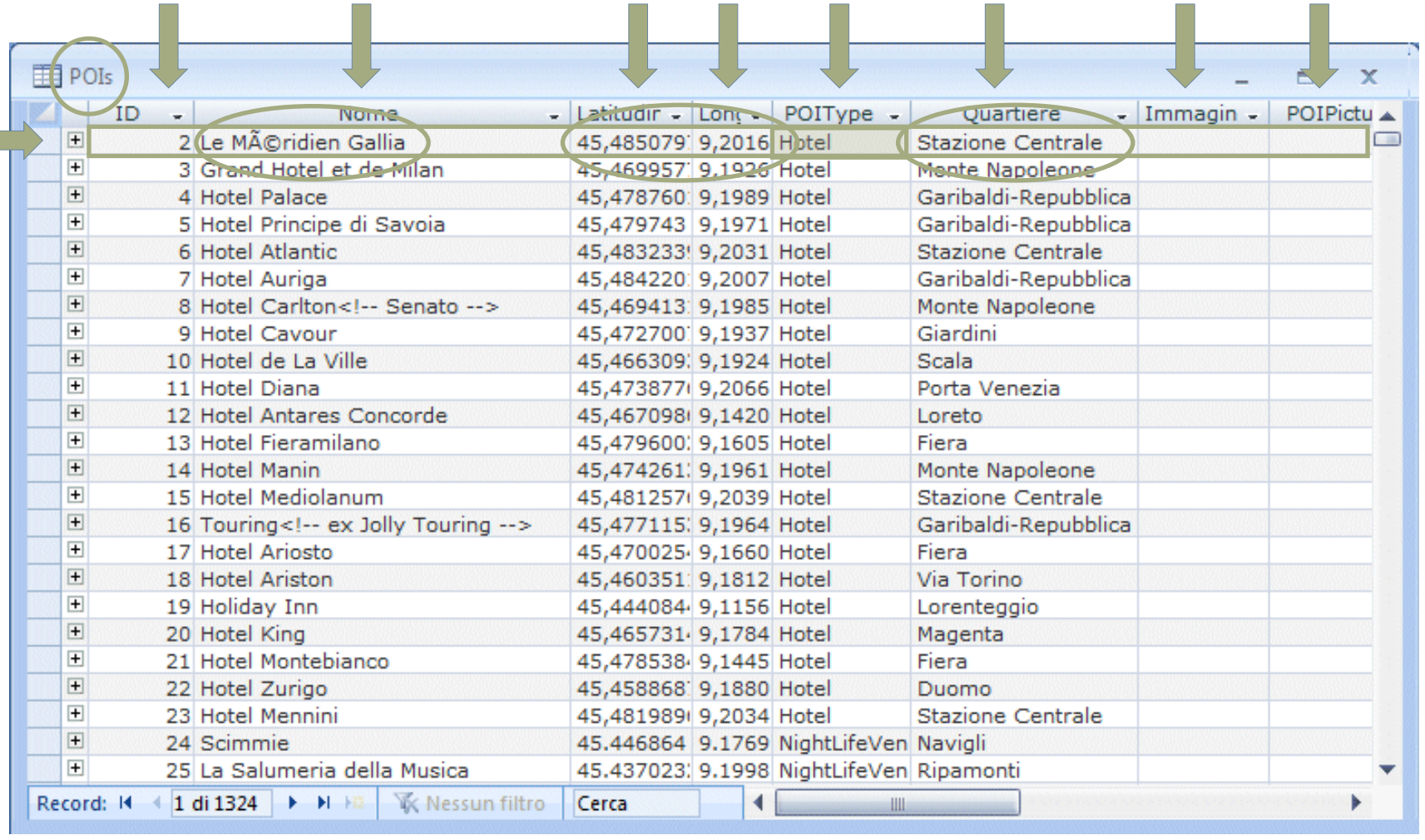
Facebook takes from their databases highly specific content for every position in the template, triggers included.

What are databases?

"Databases are organized collections of data. The data are typically organized to model relevant aspects of reality (for example, the availability of rooms in hotels), in a way that supports processes requiring this information (for example, finding a hotel with vacancies)." By the way, this is again Wikipedia…



Data in a table of a database



In this example, every record relates to a hotel in a table listing POIs (or Points of Interest).

Each record has fields containing data like the hotel's name, its geographical position, the district where each hotel is located, etc.

(This example table has many more fields than the picture may show…)

Structures of data in a table

Nome campo	Tipo dati	Descrizione
IDOld	Numerico	Previous numerical identity of a Point of Interest
POINome	Testo	Italian name of a Point of Interest
POIAltNome	Testo	Alternative name of a Point of Interest
POIName	Testo	English name of a Point of Interest
ChPOIName	Testo	Simplified Chinese name of a Point of Interest
POIWebSite	Memo	CiaoMilano-standardized HTML link to a relevant WebPage
POIAnchor	Testo	HTML code to include a relevant CiaoMilano anchor
GeoType	Testo	Geotype under which a Point of Interest is located
XLat	Testo	Latitude of a Point of Interest
YLong	Testo	Longitude of a Point of Interest
GoogleMap	Memo	HTML code to include a relevant Google map code

Proprietà campo

Generale | Ricerca

Dimensione campo	Intero lungo
Nuovi valori	Incremento
Formato	
Etichetta	ID
Indicizzato	Sì (Duplicati non ammessi)
Smart tag	
Allineamento testo	Standard

Un nome di campo può contenere al massimo 64 caratteri, compresi gli spazi. Per la Guida premere F1.

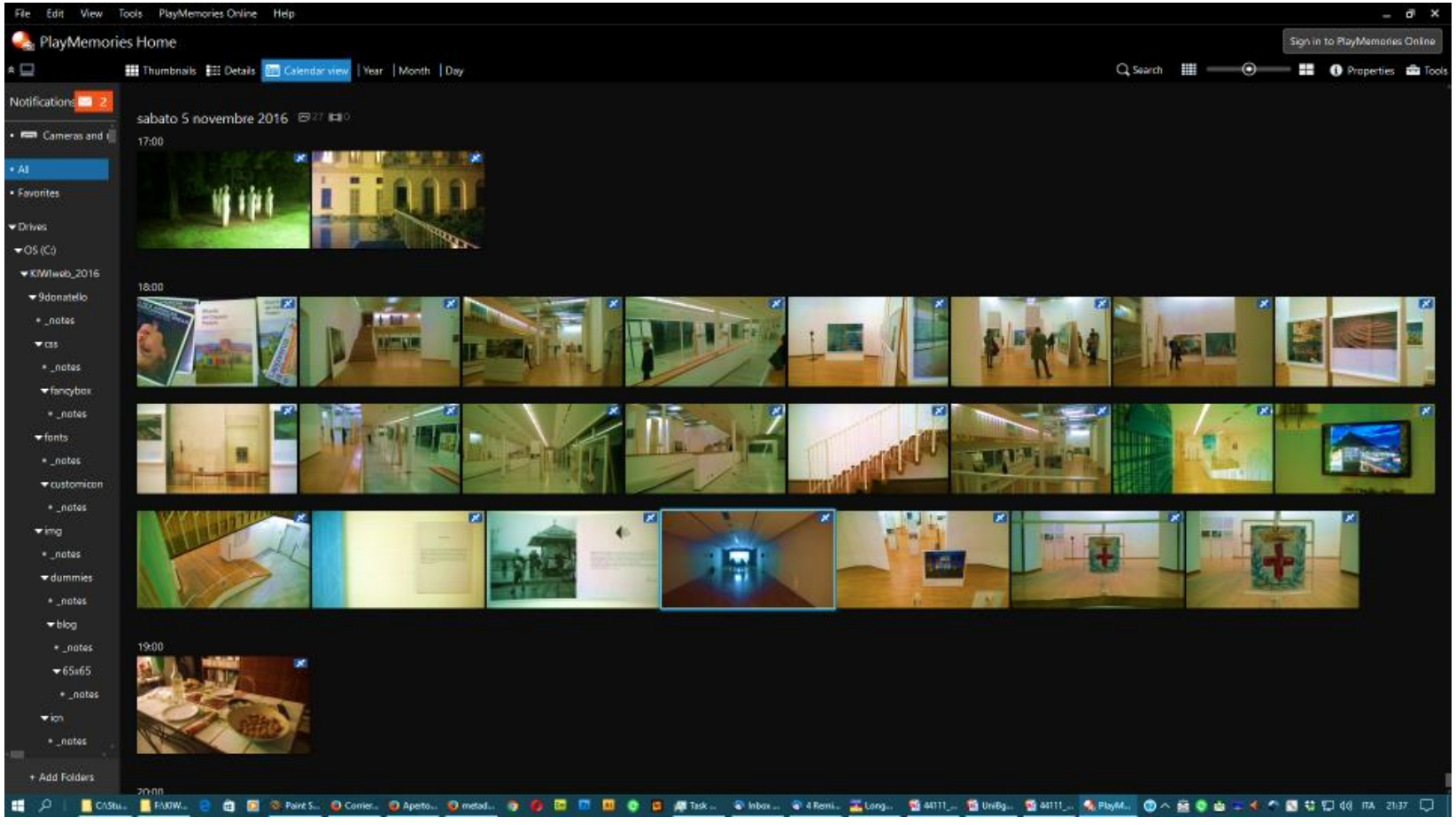
Tables have their structures, where descriptions of the fields are specified.

Fields can have different formats: numbers, text, memos, Yes/No, dates, etc.

Metadata

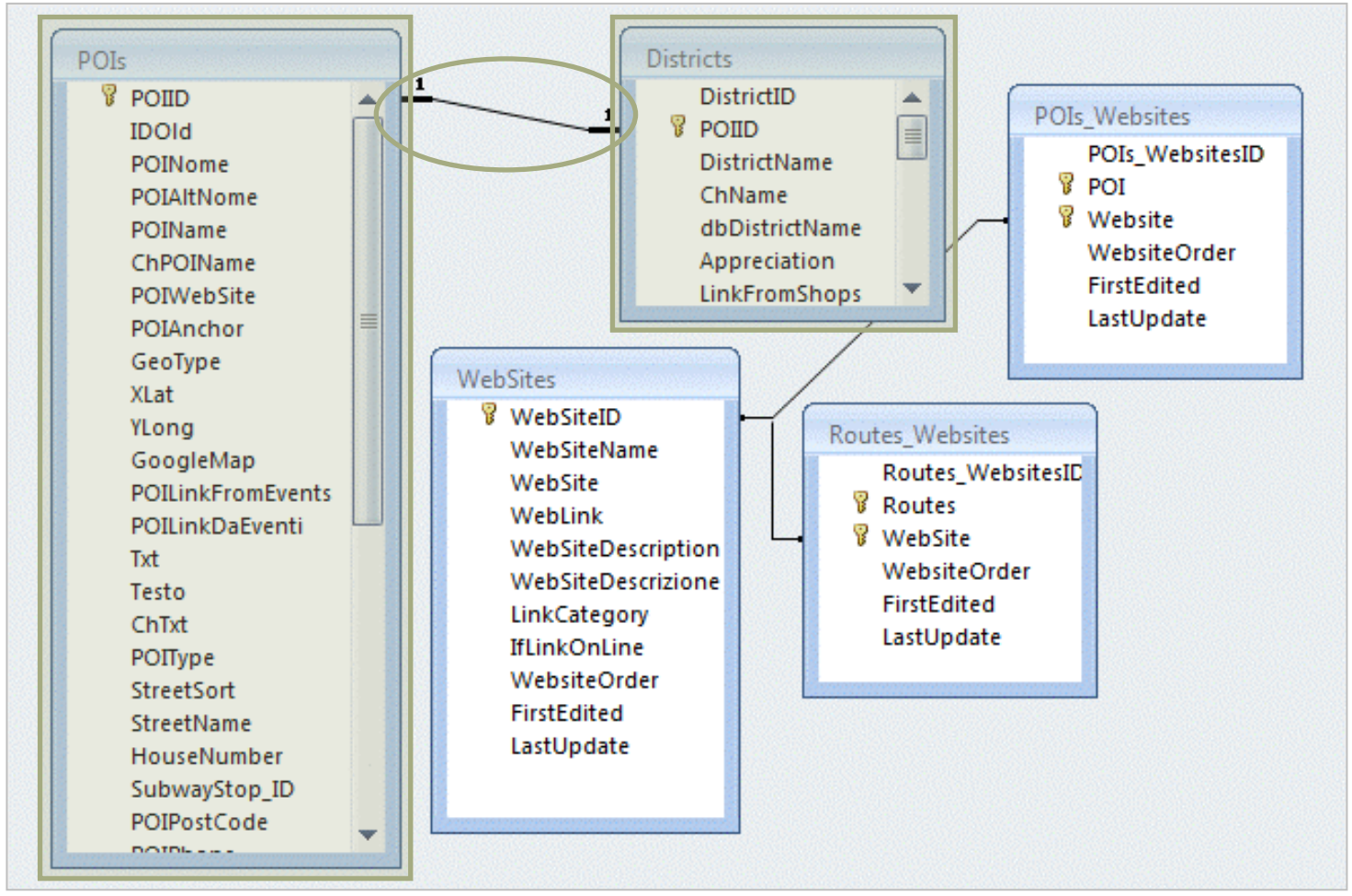
A database structure is a good example of metadata, that is, well... data about data or, if you prefer, categories under which data are organized.

Another example may be the pictures' properties, like in the Sony PlayMemories application.



Pictures' metadata

Relationships among tables



In a typical database, tables have reciprocal relationships.

The example shows that in this database the table which lists Points of Interest (like hotels) is associated with a different table which lists Districts.

In the example, each field in the table of POIs is associated (it must be so) with a field in the table of Districts.

Every POI record is associated with a single District record.

Queries (or views)

We never happen to consider all the content of a database at the same time. We invariably ask a database to show which records (or which data from which records) correspond to a current question of ours. This question is called a query.

For instance, we can ask a database to show us which events are expected to be available today in a place called “Odeon”.

To do so, we run a query which extracts from the database only the events that

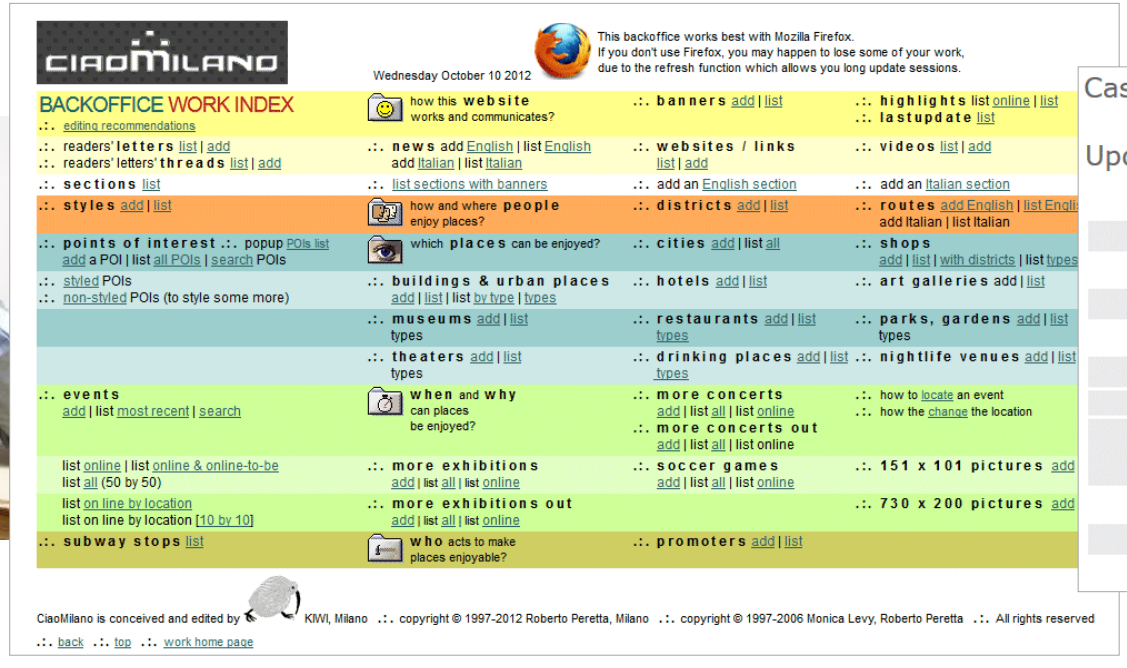
- are listed in the table which lists events
- have begun on a date before today, and will end on a date after today
- are associated with a record in the table of places
- has the word “Odeon” as the content of the “Name” field in the table of places.

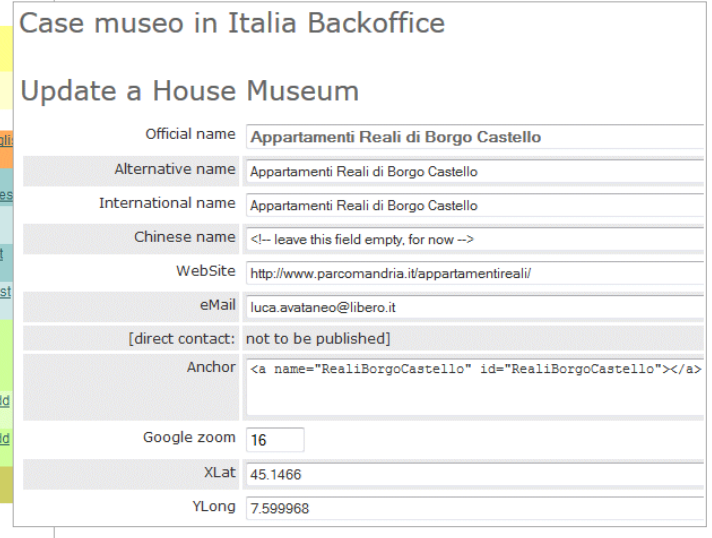
In some operating systems, the results of queries are now called views.

Data, back offices and dynamic websites

If we upload a database on a web server, we can build a back office allowing us to manage the database online. This way we manage our official website's content, too.

A back office is a tool allowing us, well... to run an office from its back!





Data, UGC, and communities

If you wonder how User-Generated Content (UGC) is stored, managed and retrieved in web platforms, the answer is through databases.

By the way, UGC is defined as "any form of content such as blogs, wikis, discussion forums, posts, chats, tweets, podcasts, digital images, video, audio files, advertisements and other forms of media that was created by users of an online system."

image credits to insidemarketing, slideshare and fulltiltmarketing

Communities, as you certainly know, are platforms where users are invited to share UGC about a specific field or in a set of specific digital formats.

Communities: Flickr

Flickr (pronounced “flicker”) is an image hosting and video hosting service suite as well as an online community.

It was created by Ludicorp, a Canadian company, in 2004 and acquired by Yahoo in 2005. It currently belongs to SmugMug.

In addition to being a popular website for users to share and embed personal photographs, the service is widely used by photo researchers and bloggers to host images that they embed in blogs and social media.

Communities: YouTube

YouTube is a video-sharing website created by former PayPal employees in February 2005. In October 2006, it was bought by Google for US$1.65 billion.

YouTube is currently reckoned to be the second-most popular website in the world.

The website allows to upload, view, rate, share, report and comment on videos. It sticks to the official html5 recommendations to display a wide variety of user-generated and corporate videos.

- YouTube videos are often embedded in others' webpages.

Communities: TikTok

TikTok is a Chinese video-sharing social networking service launched in 2017. It is owned by ByteDance, a Beijing-based Internet technology company founded in 2012 by Zhang Yiming.

TikTok is known in China as Douyin.

TikTok is used to create short music, lip-sync, dance, comedy and talent videos.

In July 2020, TikTok, excluding Douyin, reported close to 800 million monthly active users worldwide.

Communities: TripAdvisor, of course

TripAdvisor is a brand of Tripadvisor, Inc., an online travel company headquartered in Needham, Massachusetts.

It claims to be the largest travel site in the world, reported to feature approximately 859 million reviews and opinions on some 8.6 million establishments – including 1.4 million accommodations, 842,000 rental properties, and 5.2 million restaurants.

TripAdvisor was founded in February 2000 and purchased by IAC/InterActiveCorp in 2004. IAC spun off its travel group of businesses under the Expedia, Inc. name in August 2005. TripAdvisor was spun off from Expedia in December 2011.

Communities: LinkedIn

LinkedIn is a business and employment-oriented online service that operates via websites and mobile apps.

Launched in 2003, it is mainly used for professional networking. LinkedIn allows members (both workers and employers) to create profiles and "connections" to each other in an online network which is supposed to represent real-world professional relationships.

As of June 2021, LinkedIn is reported to have 756 million members from some 200 countries.

Microsoft acquired LinkedIn for $26.2 billion in 2016.

Social networks

Now, leaving the communities and moving on to the social networks, let's quote Wikipedia again.

"A social networking service is an online service, platform, or site that focuses on facilitating the building of social networks or social relations among people who, for example, share interests, activities, backgrounds, or real-life connections.

A social network service consists of a representation of each user (often a profile), his/her social links, and a variety of additional services."

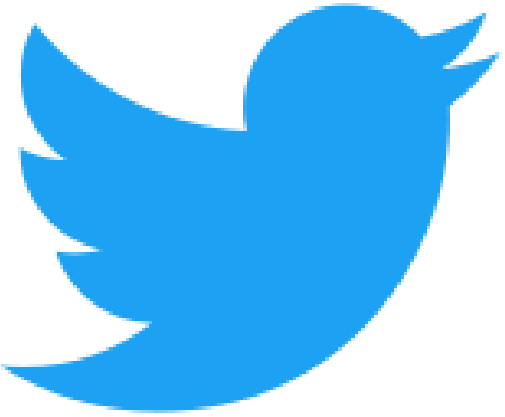
Social networks: Facebook

Facebook is a for-profit corporation and online social media and social networking service based in Menlo Park, California. The Facebook website was launched on February 4, 2004, by Mark Zuckerberg, along with four fellow Harvard College students.

As of 2020, Facebook claimed 2.8 billion monthly active users, and ranked seventh in global internet usage.

The company has been subject to repeated litigation. An example: the Federal Trade Commission and a coalition of New York state and 47 other state and regional governments filed separate suits against Facebook on December 9, 2020, seeking antitrust action.

Social networks: Twitter



Twitter is an online social networking service launched in 2006 and based in San Francisco, California. It enables users to send and read short 140-(or 280-) character messages called “tweets”.

Registered users can read and post tweets, but those who are unregistered can only read them.

In early 2019, Twitter was reported to have more than 330 million monthly active users.

On the day of the 2016 U.S. presidential election, Twitter proved to be the largest source of breaking news, with 40 million tweets sent by 10 pm that day.

Social networks: SnapChat

Snapchat is an instant messaging and multimedia mobile application created by Evan Spiegel, Bobby Murphy, and Reggie Brown when they were students at Stanford University.

Snapchat evolved into a mix of private messaging and public content, including brand networks, publications, and live events such as sports and music.

Nevertheless, according to survey studies conducted in March 2016, the personal oriented messaging was still being accessed by users more than the publicly offered content that was being presented.

As of July 2021, Snapchat was reported to have 293 million daily active users, a 23% growth over a year.

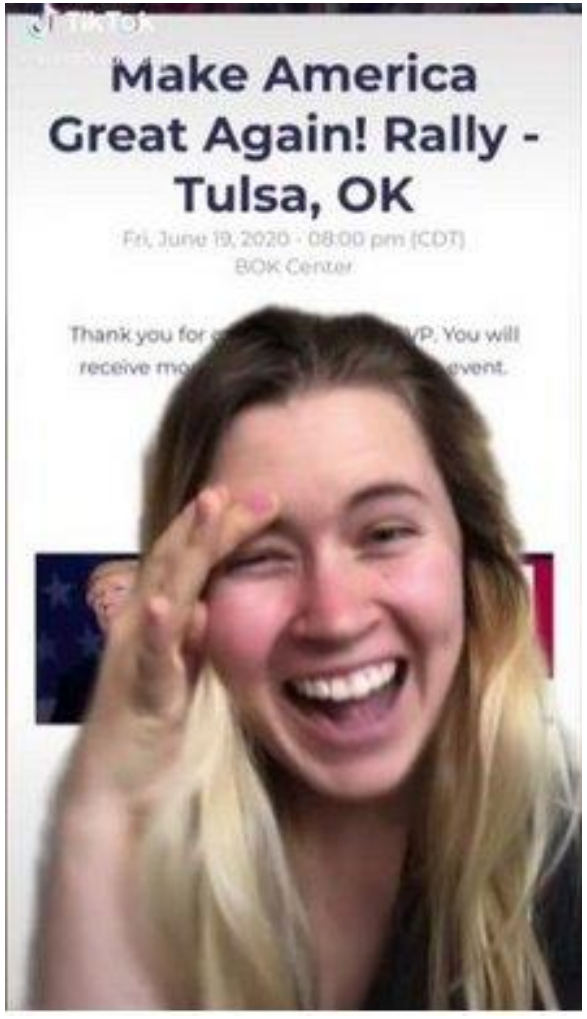
Between communities and social

It may be interesting to note that Instagram, YouTube and TikTok – which are all communities born to deal with a specific medium only – have evolved to become social networking platforms.

For instance, TikTok was used to spoil a political rally organized by Mr Trump in June 2020, in what certainly was not a simple sharing of short videos.

This might make us consider the power of images and moving images as greater than that of other texts.

At least another case can be found of a visual community which has, as a matter of fact, become a social network.



Community & social network: Instagram

Instagram is a mobile, desktop, and Internet-based photo-sharing application and service that allows users to share pictures and videos either publicly or privately.

It was created by Kevin Systrom and Mike Krieger and launched in October 2010 as a free mobile app exclusively for the iOS operating system. A version for Android devices was released two years later.

Instagram was acquired by Facebook in April 2012 for approximately US$1 billion in cash and stock.

As of January 2019, the Stories feature is reported to be used by 500 million people daily.

Community & journalism: Medium

Medium is an online publishing platform developed by Twitter co-founder Evan Williams n August 2012 and owned by A Medium Corporation.

The platform is an example of social journalism, having a hybrid collection of amateur and professional people and publications, or exclusive blogs or publishers on Medium and is regularly regarded as a blog host.

The number of articles which are readable free by registered users is limited. In July 2020, Medium declared to have gathered around 400,000 paying members.

Sharing tools: Google Drive

Beyond communities and social networking platforms, other sorts of web sharing tools must be mentioned, when talking about networks.

Perhaps the most useful of these tools is Google Drive, a file storage and synchronization service created by Google.

It allows users to store files in the cloud, synchronize files across devices, and share files. It encompasses Google Docs, Sheets and Slides, an office suite that permits collaborative editing of documents.

Sharing tools: Dropbox, and WeTransfer

Another useful web tool is Dropbox, a file hosting service operated by Dropbox, Inc., headquartered in San Francisco, California, that offers cloud storage, file synchronization, personal cloud, and client software.

A service frequently used to share heavy files – as an alternative to Dropbox – is WeTransfer, a cloud-based service which was founded in Amsterdam in 2009. WeTransfer does not necessarily store content. It simply makes it available to one or more specific users for a limited amount of time.

Sharing tools: Slack

Finally, Slack is a cloud-based team collaboration tool co-founded by Stewart Butterfield, Eric Costello, Cal Henderson, and Serguei Mourachov, and owned by Salesforce from July 2021.

Slack began as an internal tool used by Butterfield's company, Tiny Speck, in the development of Glitch, a now defunct online game.

The name is actually an acronym, which means, "Searchable Log of All Conversation and Knowledge".

Sharing, no responsibilities

Intentionally, we don't mention here two sharing platforms that pair people with identities like phone numbers only, allow disturbing people with unwanted personal calls, or openly bypass responsibilities issues.

Identifying these platforms by their logos won't be difficult.

These platforms' intrinsic ability to conceal real identities – helping to cover people's tracks and responsibilities – makes them substantially unacceptable for tourism activities.

It is true that other social platforms or even the e-mail allow to adopt fake identities. Yet, WhatsApp's and Telegram's structural attitude to hide themselves looks frankly scary.

Web presence

So, you see there's the Web, but there are not only websites.

When we have – as we'll certainly have – to consider what the Web tells and comments about something, we cannot consider only its official website.
We must think in terms of its web presence as a whole.

The web presence of any entity – a destination, for instance – includes

1. the official website run by the destination
2. the accounts officially run by the destination on TripAdvisor, Facebook, etc.
3. what other people publish about the destination on the communities and the social networks.

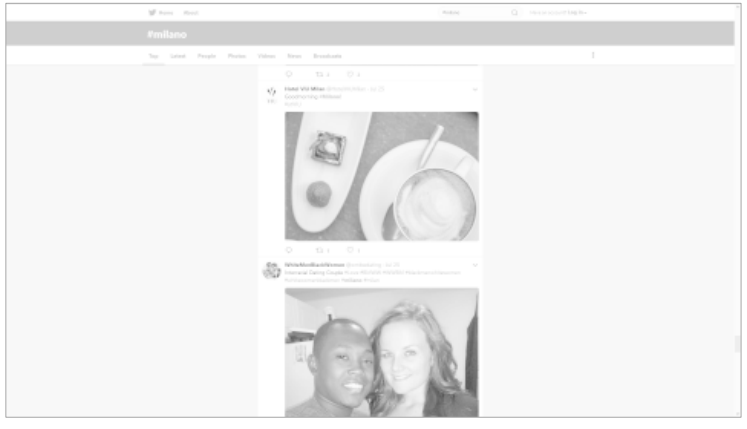
As we will see, web reputation also deals with this third form of web presence.

In control

image credit to IconFinder

The web presence of any entity – a destination, for instance – includes

1. the official website run by the destination
2. the pages semi-officially run by the destination on TripAdvisor, Facebook, etc.
3. what other people write about the destination on the communities and the social networks.

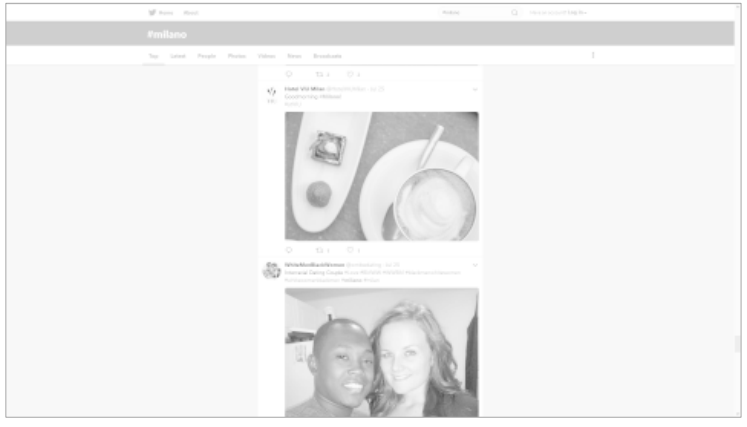


Partial control

image credit to IconFinder

The web presence of any entity – a destination, for instance – includes

1. the official website run by the destination
2. the pages semi-officially run by the destination on TripAdvisor, Facebook, etc.
3. what other people write about the destination on the communities and the social networks.



No control

image credit to IconFinder

The web presence of any entity – a destination, for instance – includes

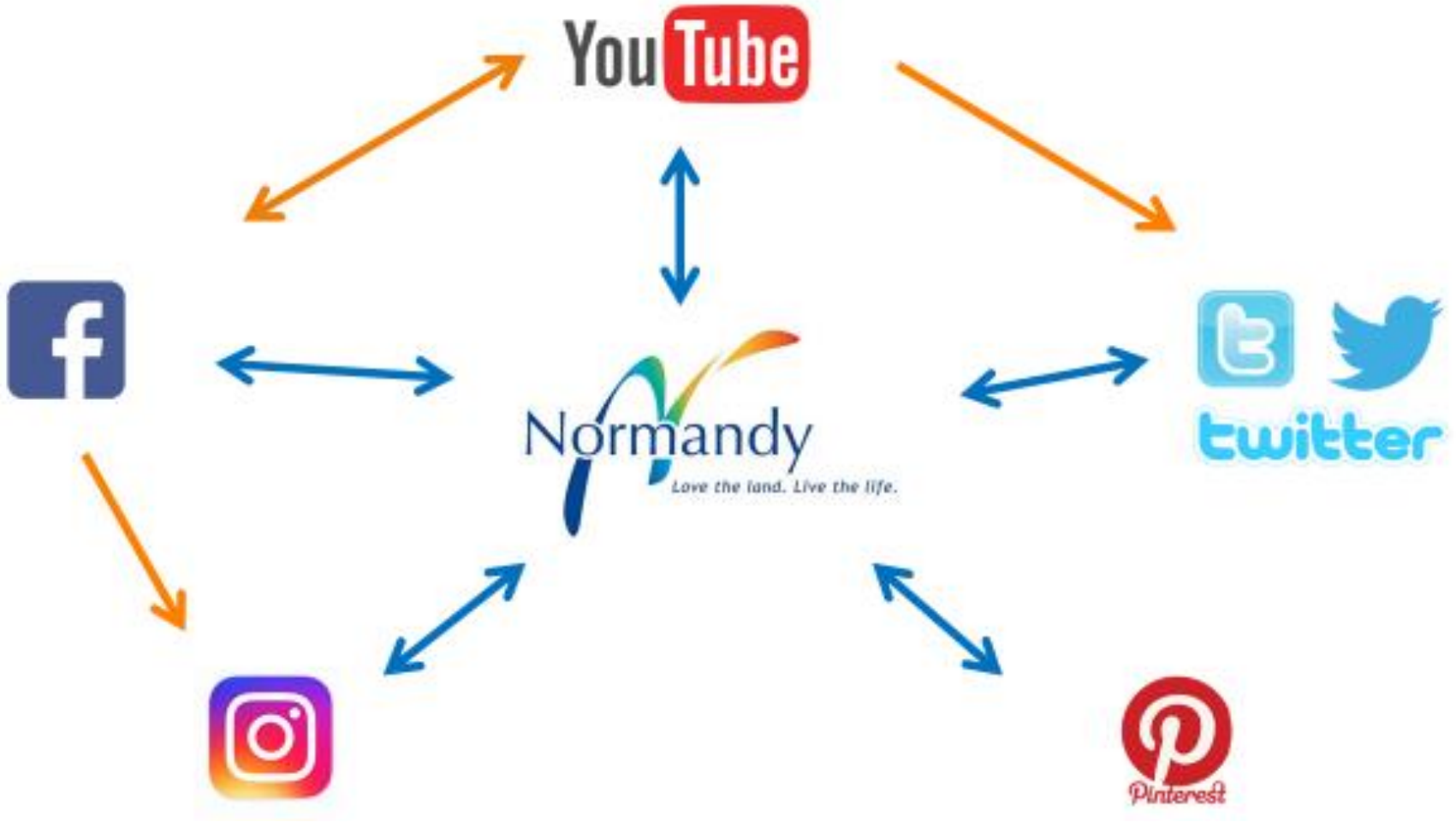
1. the official website run by the destination
2. the pages semi-officially run by the destination on TripAdvisor, Facebook, etc.
3. what other people write about the destination on the communities and the social networks.

A web presence map

image credit to IconFinder

A map of the links among the official and semi-official components of a web presence can be drawn.

This map of the official and semi-official web presence of Normandy was produced by colleagues of yours.

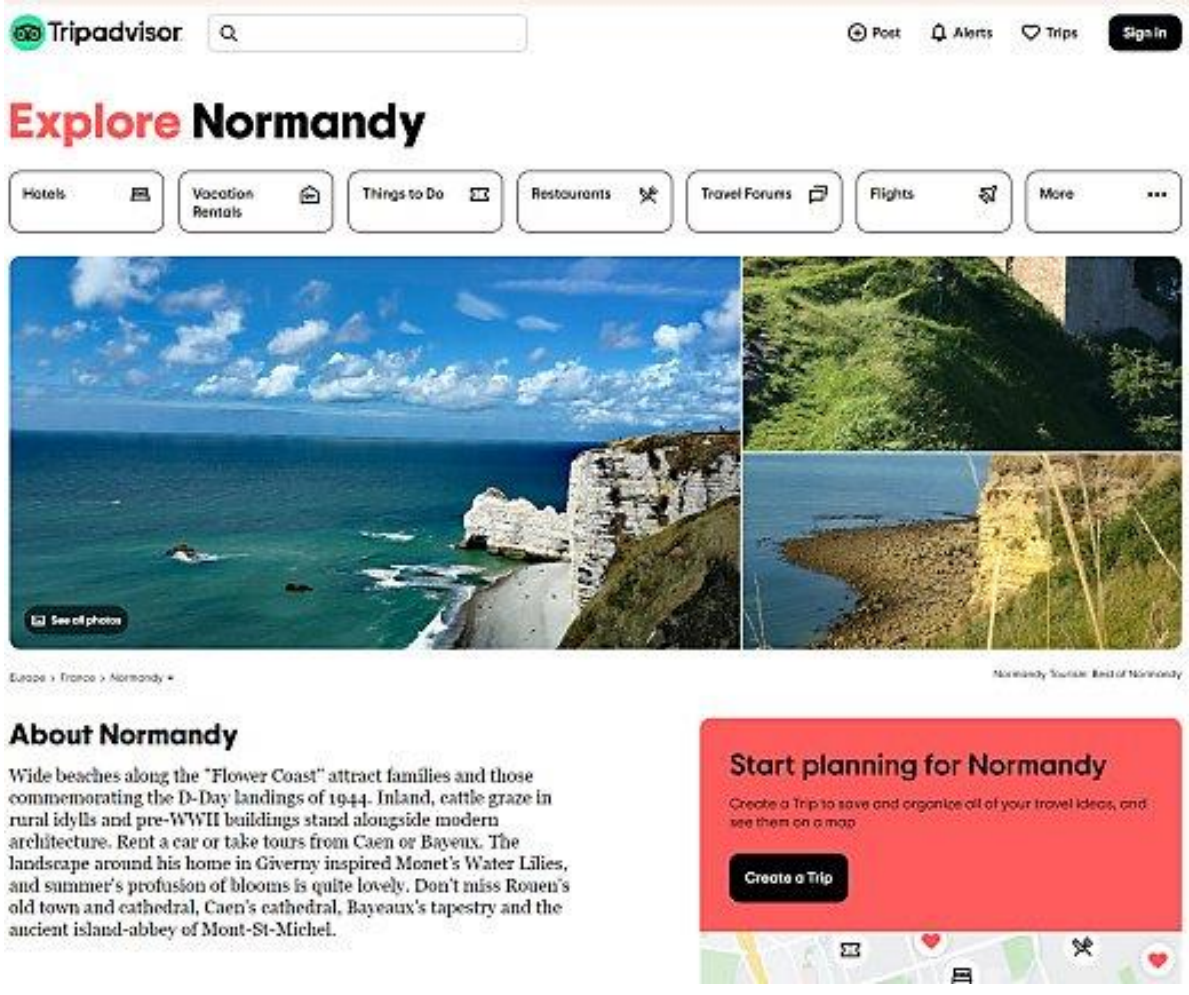


Something is missing...

image credit to IconFinder

But this map lacks something, we realize…

A map of the links among the official and semi-official components should also include relations with TripAdvisor at least.



Does Normandy manage its presence in TripAdvisor?

Does it monitor comments to know what guests think, judge and suggest?

And, in case, does Normandy reply?

Beyond our control!

image credit to IconFinder

Communities and socials are beyond our control. We can't access their servers.

- We can completely control our official website.
- We can partially control our TripAdvisor accounts, and our Facebook pages.
- We CAN'T control what other people write on TripAdvisor, Facebook, or Twitter or Instagram about us.

But if we want to improve – or at least defend – our reputation, we must know what other people write on the communities and the social networks about us.

But what is reputation about? And how can we know what other people write about us? We will discuss this later.

Key points

1. Thinking in terms of networks may be helpful
2. Most networks are scale-free, and have hubs
3. The more we link, the more we are present
4. Web ranking is measurable, and can be optimized
5. Metadata are data about data, and help organizing data
6. Databases collect and manage data
7. Our web presence goes beyond our official websites & our socials

image credit to hxdata.chisa.edu.cn