

Media and Digital Technologies

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Lecture 1

DGM 711
Introduction to Digital Media

Reminder

- **Digital media** have become part of everyday life.
- We have witnessed the birth of a new **Digital Environment**.
- Digital media Studies is considered **Interdisciplinary** .
- There are now **more than 4 billion** internet users around the globe.

Outline



- I. The Digital Environment Characteristics.
- II. The Digital Media Definition.
- III. The Digital Media Types .
- IV. The evolution of the Digital Media.
- V. New and Old Media.
- VI. Conclusion.

- Media studies scholars **Nick Couldry** and **Andreas Hepp** put the term of “**Mediatization**”, to refer to “the increasing temporal, spatial and social spread of mediated communication”:
- They believe that we are surrounded by more and more media technologies in all aspects of our lives, in many different contexts, and across time and space.



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I. The Digital Environment Characteristics

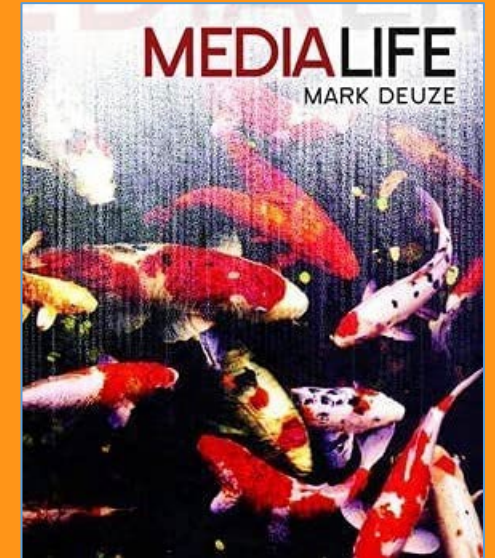
- Nick Couldry and Andreas Hepp said that “**Mediatization** is indeed a process with far-reaching consequences”.
- The **transformations** introduced by digital technologies are changing the ways in which we **produce** and **distribute** information and knowledge, as well as the ways in which we **work** and **socialize**.



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I. The Digital Environment Characteristics

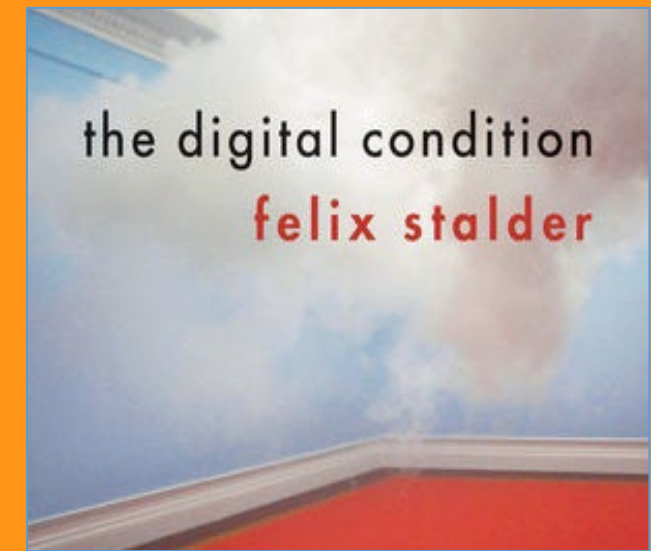
- Processes of **Mediatization**, that is the increasing presence of media in all aspects of life, have pushed social theorists to propose that we live what **Mark Deuze** calls **Media lives** (2012).
- "**Media are to us as water is to fish.**", he said.
- The digital media environment that we live in is **widespread, fluid, and highly efficient**.
- Indeed, We only note its absence: when we are **disconnected**, it is **stressful and problematic**.
- Think of when your phone stops working as the train you are riding goes into a tunnel.



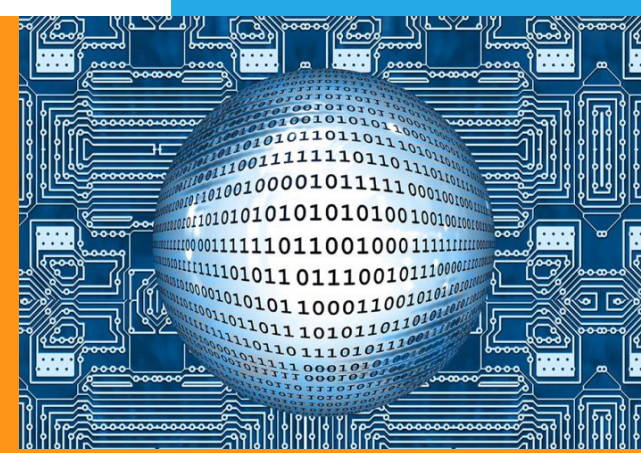
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I. The Digital Environment Characteristics

- Media theorist **Felix Stalder** describes this as the “**Digital Condition**,” a state in which **computer networks** have become “the key **infrastructure** for all aspects of life” (2018).



- “**Digital**” refers to “recording or storing information as a series of the numbers 1 and 0”.
- We get the adjective **digital**, of the **Latin** word “**digitus**”, that means “**finger** or **toe**,” as fingers are often used for **counting**.



The word *digital* comes from a Latin word meaning “finger.”

- Media is used as a plural of **medium**.
- **Media** refers to the medium through which information is transmitted.
- There are many **ways** to transmit information, but no matter what way.
- **Media** refers to any mass communication **vehicle** such as newspapers, magazines, radio, television and internet that produce information, news, entertainment, and advertising messages to an audience.



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II. The Digital Media Definition :

- “**Digital Media**” refers to “the means that they carry information represented by a **numeric code** and then transform it into **human language**”.
- This code is “**digital**” in the sense that it is based on the binary distinction between two symbols, **1 and 0**.



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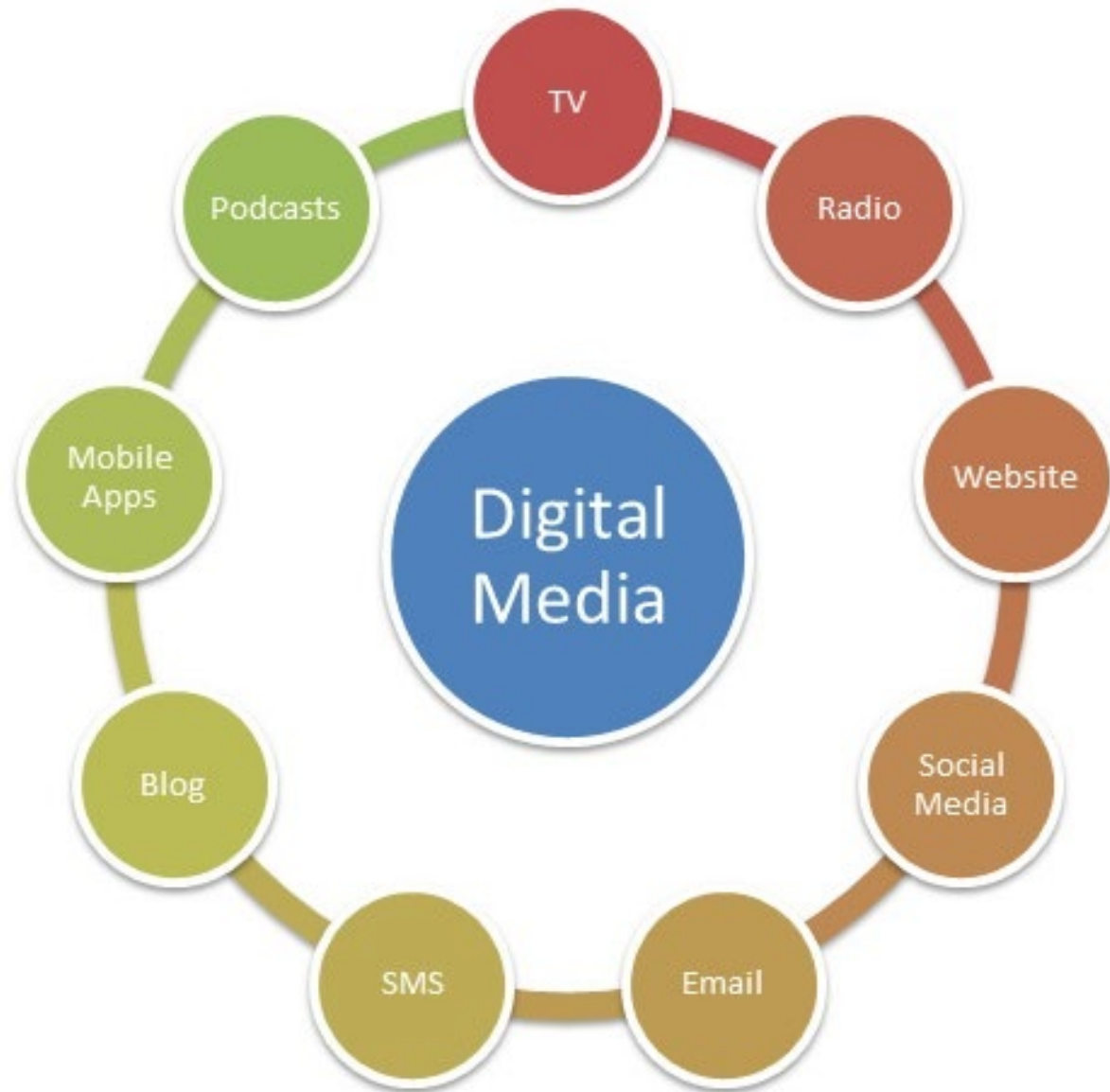
II. The Digital Media Definition :

- Personal computers, mobile phones and smartphones, tablets, digital cameras, video game consoles, telecommunications satellites, credit cards, MP3 players, televisions, servers, browsers, social media services, or self-tracking gadgets are all based on the processing of information in **digital formats**.

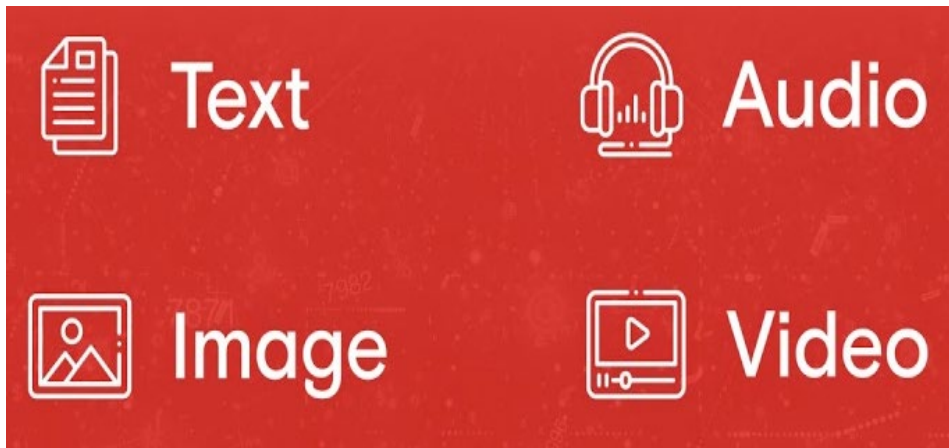


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II. The Digital Media Definition :



- At present, the main types of digital media are **text**, **image**, **video** and **audio**.
- **Digital media** is sometime called **multimedia**.



- **Texts** :
- Traditionally, people consumed **text** via books, print newspapers, magazines, and the like.
- Even though digital media has proliferated, the desire for those kinds of reading experiences has increased.
- The proliferation of **news websites**, the popularity of resources like **Wikipedia**, and the rise of **e-readers** underline the continued importance of **written work** in digital media.



- **Video:**

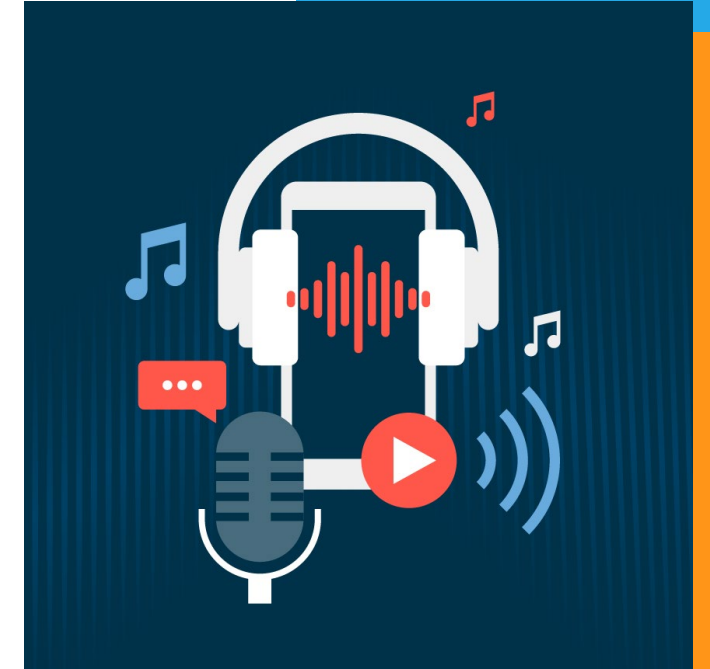
- Many digital media outlets are **visual**, from streaming **movie** and **television** services such as **Netflix** .
- One of the biggest players in visual digital media is **YouTube**, which hosts billions of videos.



- **Images :**
- **Visual content** is online content that's primarily image-based.
- Common forms of visual content include **pictures, diagrams, charts, infographics, screenshots, memes** and slide decks.



- **Audio:**
- Audio forms of digital media include digital **radio** stations, **podcasts**, and **audiobooks**.



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IV.The evolution of the Digital Media :

- The history of the electronic computers and computer networks that constitute digital media goes back several decades .
- The spread of **digital media** has grown steadily since the **1980s**.
- In sum, digital media have become so pervasive that the changes, challenges, and opportunities that they bring along assume a ubiquitous reach.

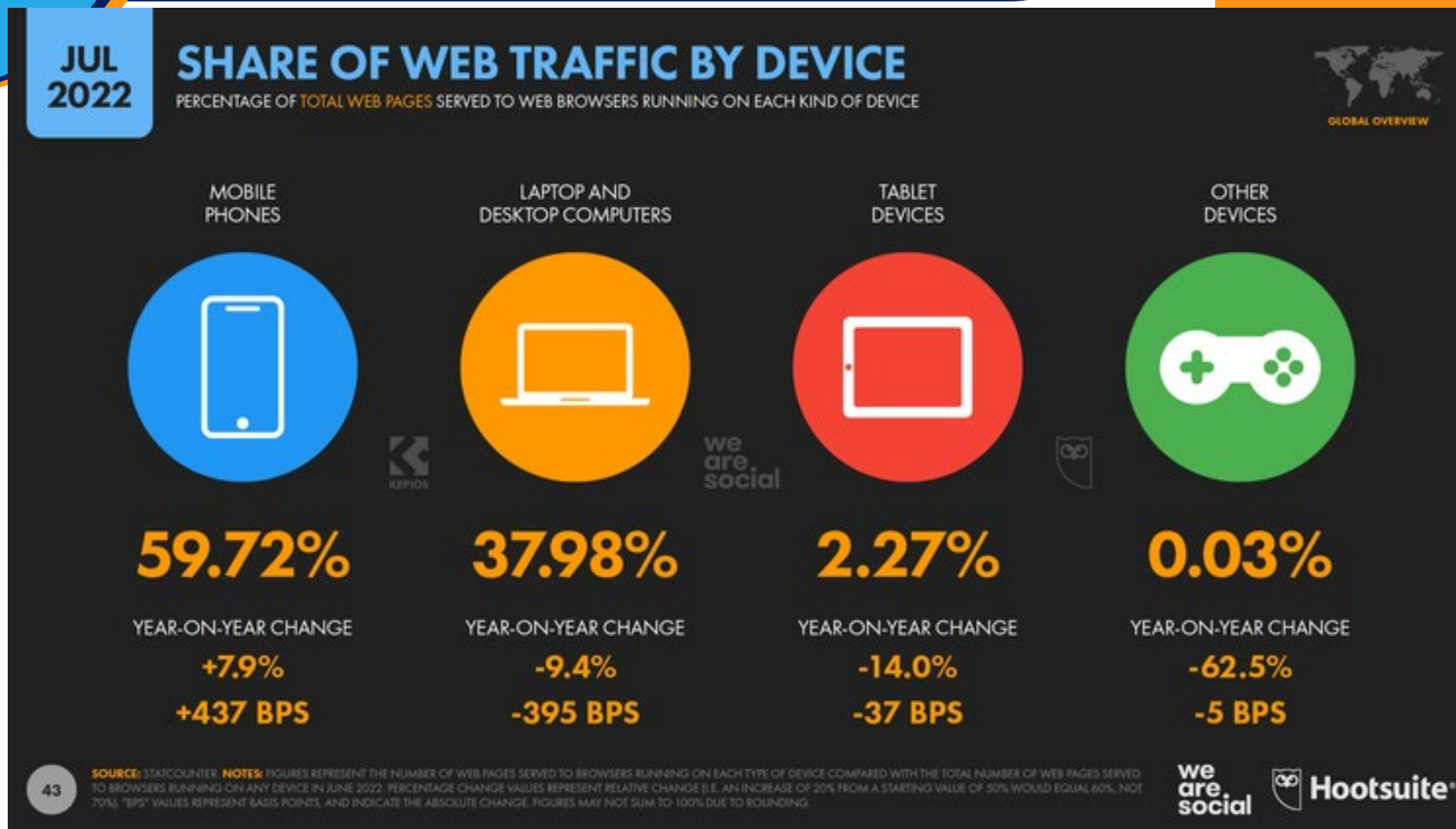


- The introduction of the **World Wide Web** in the **1990s** brought internet connectivity into most homes and businesses in the advanced economies.
- The **2000s** gave us the collaborative web: **software and online platforms** that allow all users to produce and distribute digital content.
- More recently, mobile technologies such as **smartphones and tablets** have transformed the daily experience of the internet, further integrating digital media into the flow of everyday life.



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IV. The evolution of the Digital Media:

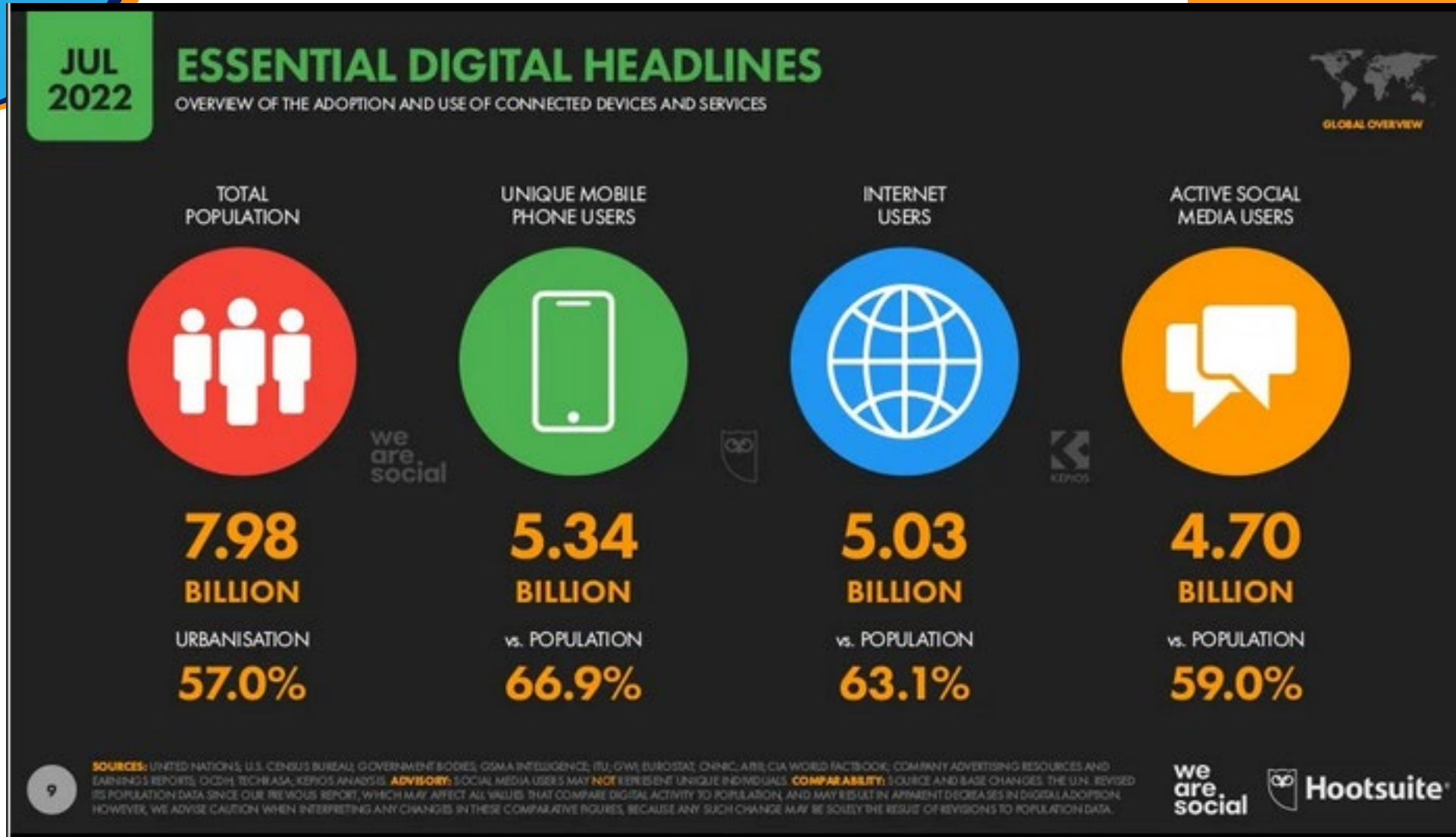


- The spread of digital media has been **explosive**.
- In **2018**, in the **USA, Canada, Italy**, and many other **Western countries**, about **90%** of the population use the **internet** on a daily basis, and almost as many own a **smartphone**.
- **China** alone has **700 million** internet users.
- **Globally**, the number of internet users has **passed four billion**, or more than half of the world's population.



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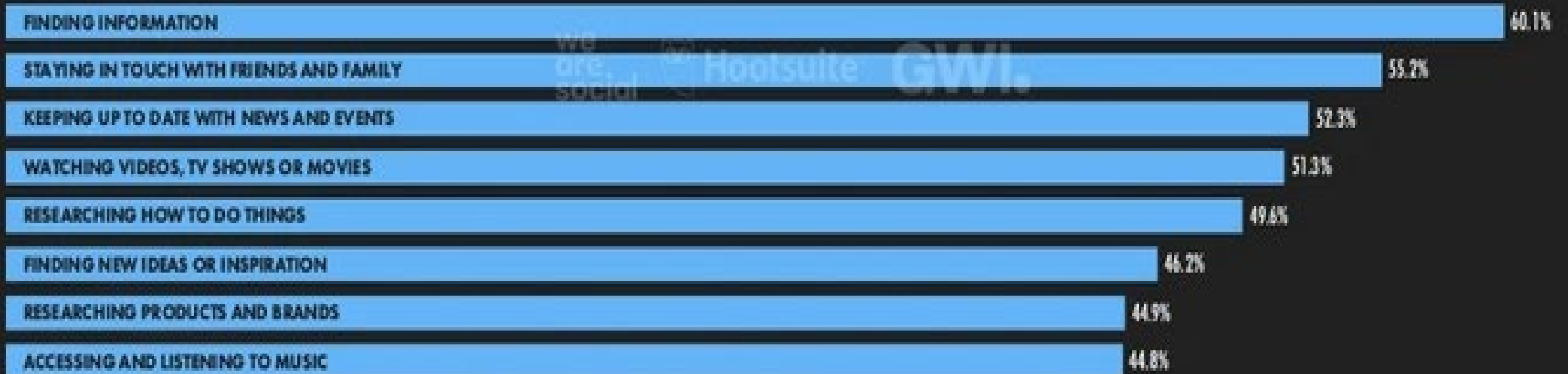
IV. The evolution of the Digital Media:



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MAIN REASONS FOR USING THE INTERNET

PRIMARY REASONS WHY INTERNET USERS AGED 16 TO 64 USE THE INTERNET



- The massive spread of smartphones and internet use in the last decade has changed the **geography** of the **information society**.
- This challenges established assumptions about development and is rearranging the **global role** of some countries and areas of the world.



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MOST COMMON LANGUAGES FOR WEB CONTENT

SHARE OF WEB PAGES THAT FEATURE CONTENT IN EACH LANGUAGE, COMPARED WITH SHARE OF GLOBAL POPULATION THAT SPEAKS EACH LANGUAGE

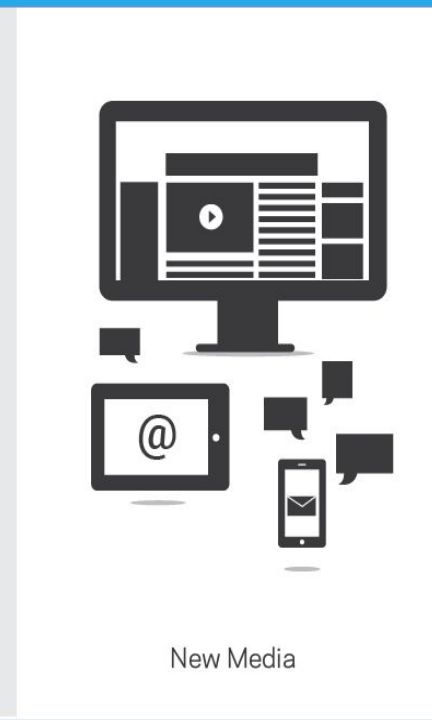


#	LANGUAGE	SHARE OF WEBSITES	SHARE OF POPULATION	#	LANGUAGE	SHARE OF WEBSITES	SHARE OF POPULATION
01	ENGLISH	61.7%	17.0%	11	ITALIAN	1.4%	0.9%
02	RUSSIAN	5.6%	3.3%	12	DUTCH / FLEMISH	1.2%	0.4%
03	SPANISH	3.8%	6.9%	13	ARABIC	1.1%	4.9%
04	TURKISH	3.3%	1.1%	14	POLISH	1.0%	0.5%
05	GERMAN	3.0%	1.7%	15	PORTUGUESE	0.9%	3.3%
06	FRENCH	2.9%	3.4%	16	INDONESIAN	0.7%	2.5%
07	PERSIAN	2.8%	0.9%	17	KOREAN	0.5%	1.0%
08	JAPANESE	2.5%	1.6%	18	UKRAINIAN	0.5%	0.6%
09	CHINESE	1.6%	18.9%	19	THAI	0.5%	0.8%
10	VIETNAMESE	1.6%	1.0%	20	HEBREW	0.4%	0.1%

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V. New and Old Media

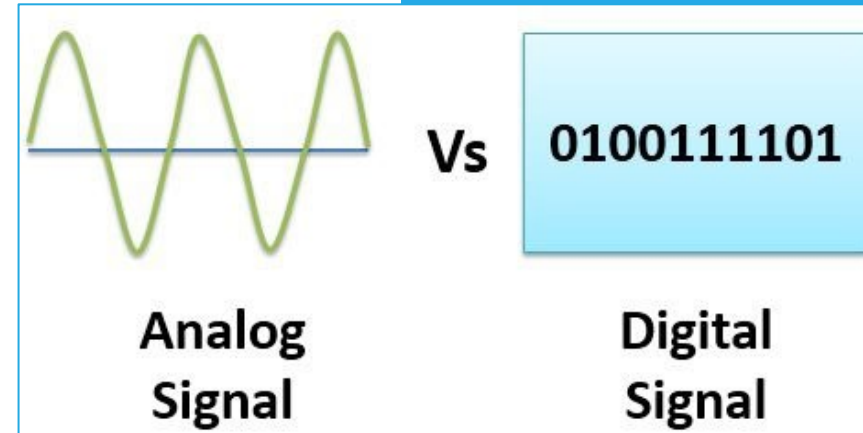
- In early scholarship about the rise of digital media, the definition **“New Media”** was used to describe **information and communication technologies based on digital code.**
- **“New media”** signified the set of media technologies that had emerged since the last decades of the twentieth century.
- This distinguished them from **“Old Media,”** which was a definition used to identify **traditional mass media like television, newspapers, or radio.**
- **Traditional (nondigital) media** includes several types of communication technologies, some of which have existed for hundreds of years.



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V. New and Old Media:

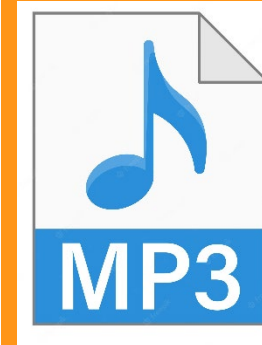
- **Digital media** have certain common characteristic that distinguish them from **Analog media**.
- “**Digital Media**” carry information represented by a **numeric code** based on the binary distinction between two symbols, **1 and 0**.
- **Analog media** instead rely on continuous scales, like the scale of **colors** that can be represented by the chemical composition of a piece of celluloid film, or the **letters** of the alphabet that can be rearranged into words and expressions.
- Thanks to their binary code, **digital media** can carry information very **efficiently**.



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V. New and Old Media:

- Yet **new media** that have emerged in the last 40 years or so are based on **heterogeneous** computing technologies and are very different from each other.
- Conversely, **old media** are sometimes held to be **better** than new media, as older technologies can be **represented** as more **authentic**.
- For example, many claim to have a deeper relationship with **books** than with **e-books**, or with **vinyl records** than with **MP3** files.



- When new media are introduced they **do not replace** old media, but rather **integrate** or **change** them.
- The introduction of **television** has not caused the disappearance of the **newspaper**.
- The introduction of the **tablet** did not cause the disappearance of the **book**.



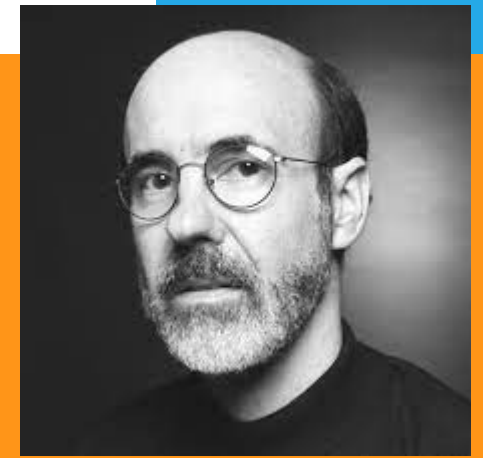
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V. New and Old Media

- Rather, **books** evolved into different technological **formats**.



- **Bolter and Grusin (2000)** called this process of evolution, “**Remediation**”, that entails competition as well as coevolution and cooperation among different media .



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V. New and Old Media:

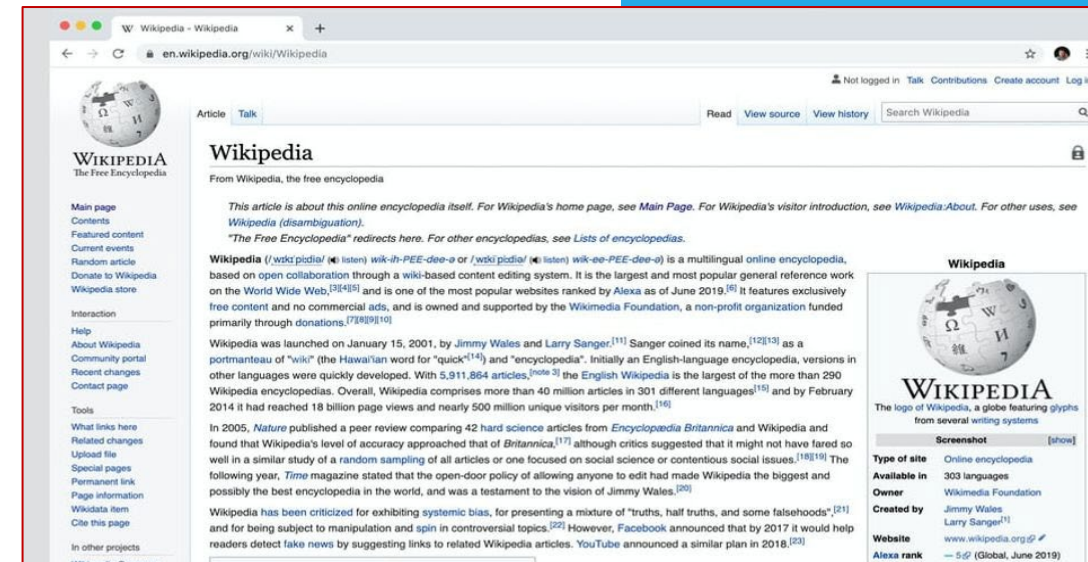
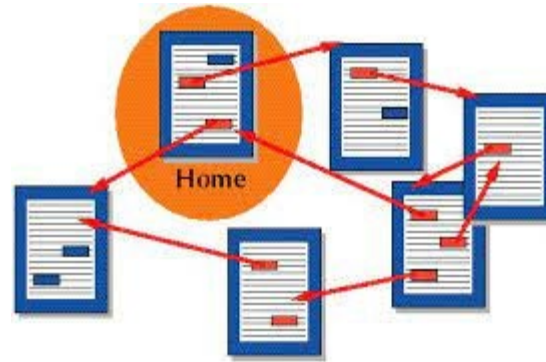
- A **practice**, **content**, or **format** can be **re-mediated** by a new technology that **mimics** or **reworks** previous formats.
- For example, the design of some **web radio receivers** reproduces 1950s **radio sets**.



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V. New and Old Media

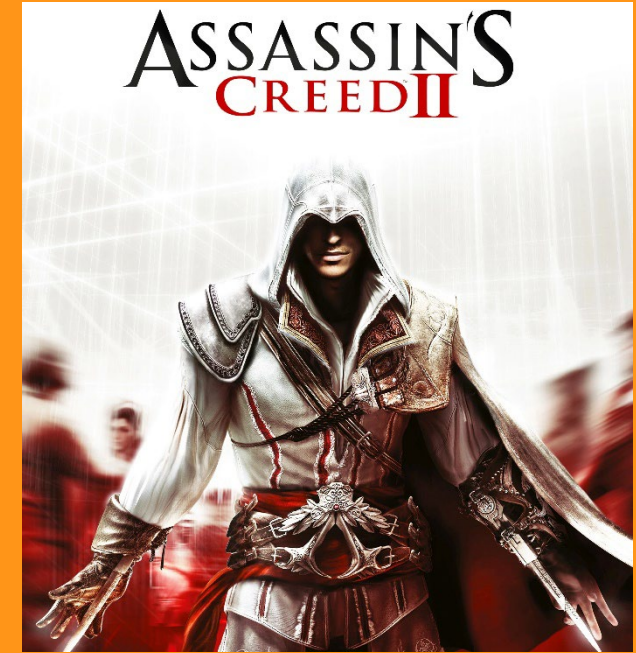
- **Wikipedia** mirrors and is structured like a traditional **encyclopedia**, so that cross-references between entries allow a **non-linear** reading path, although this is made possible via **hyperlinking** technologies rather than by manually turning the pages.



- Overall, **new media** do not come out of nowhere, but rather **evolve** from existing practices and media technologies.
- The concept of **remediation** allows the recognition that the history of media is a **continuous, non-linear process** that can go in several directions, as old and new media continue to **influence** each other.



- For example, **newer formats** can provide content and aesthetics that are adapted in older formats,
- **Assassin's Creed** is a franchise based on a **video game** but its storiesm are expanded to a broader set of media, such as **films**, comic **books**, and **novels** .



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V. New and Old Media

- **The early stages** of life of an emerging media technology are characterized by **uncertainty** about its role.
- **New media** are not immediately accepted as natural components of the social world, and their meaning is initially open and contested.
- This phase has been defined as the “**Identity Crisis**” of new media (Lisa Gitelman and Geoffrey Pingree 2003).



- After its introduction, the meanings and functions of a new technology are **slowly shaped** by existing patterns of media usage and by the habits and desires of new users, as well as by technological characteristics.
- For example, **new media** such as the **telephone** in the mid-twentieth century has been met with **anxieties** about their role in the life of .



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V. New and Old Media

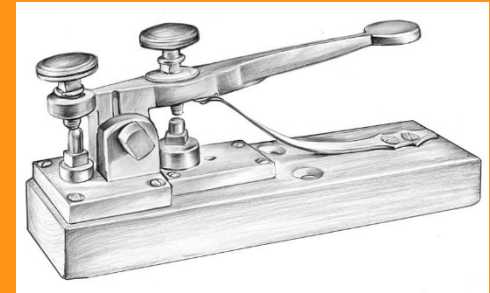
- The phase of **crisis** and novelty is resolved when a new technology becomes **a mass consumer product**.
- In a process of “**Domestication**,” the new technology is accepted in a society, it becomes everyday and understandable and tends not to cause rejection or fear anymore (Pantzar 1997).



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V. New and Old Media

- Some media may be **abandoned**, as happened to the **Phonograph** or the **Telegraph**.
- Some can even **disappear** and **be forgotten**, as the **Zoograscope**, an eighteenth-century device that used a lens to artificially provide depth to two-dimensional images; it now survives only in museums.



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V. New and Old Media

- However, often times media that seem to have disappeared leave traces behind, or are **updated** onto new media formats and technologies.
- Contemporary **3D media** are indebted to a series of previous technologies, from the **Zoograscope** to the red and cyan **glasses** used to obtain anaglyph stereoscopic effects.



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V. New and Old Media

- Many **old media** can be seen as “**undead**”: their imminent death is announced or assumed but they refuse to disappear.
- This is the case of the **printed book**, which was thought to be doomed by the emergence of **e-books**, or the **analog radio**, which was to be killed by **podcast** and streaming technologies.
- Instead, both have experienced a **resurgence** in the last few years.



Print Books



PODCAST



Conclusion

- **Mediatization** is the increasing presence of media in all aspects of life .
- **Computer networks** have become “the key **infrastructure** for all aspects of life in the digital environment.
- “**Digital Media**” are “the means that they carry information represented by a numeric code and then transform it into human language”.
- **Digital media** is sometime called **multimedia**.
- Digital media can carry information very **efficiently** than old media.
- The introduction of **new media** has not caused the disappearance of the **old media**.
- A practice, content, or format can be **re-mediated** by a new technology .

Thank you for listening

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