

D3.4 – The role of communication in shaping the European mobility culture

Work Package:	WP3
Deliverable:	D3.4
Due date:	July 31 st 2021
Submission date:	October 2021
Responsible Partner:	ISINNOVA
Version:	Final
Author:	Daniel Cassolà Silvia Gaggi Andrea Ricci
Deliverable Type:	R
Dissemination Level:	PU



Contents

	Executive summary	3
1	Mobility culture and communication	5
1.1	Culture and mobility culture	5
1.2	Communication	5
1.2.1	Mass media	6
2	The beginnings of contemporary transport and mobility	9
3	From modernity until yesterday	15
4	Today and the near future	23
4.1	Hot topics	24
4.2	Fake news and post-truth	32
4.3	Innovations	33
4.3.1	Internet and social media	33
4.3.2	Nudging sustainable mobility	34
4.3.3	Social marketing	35
5	Conclusion	37
6	References	39



Executive summary

REBALANCE aims at describing the **narrative and the essences that shape the mobility culture of today**. This report will help visualize the influence, over time, of **communication on the European mobility culture** and how the media have conveyed and represented mobility concepts. Cultural changes can be analysed, among other things, through the **evolution of the mainstream language used by media** and the way values are channelled to citizens: advertisements, movies, press articles, artistic production, video games, social media, etc. Word- and image-search is performed to this end on a significant sample of **popular communication**, spanning several decades, in order to unveil signals and messages reflecting the evolution of the mainstream mobility culture and to identify **dominant representations of explicit or underlying values** and their dynamics over time.

Cultural practices both reflect and define group identities, whether the group is a small subculture or a nation. Thus, the cultural field is the place for creativity and meaning making. But it is also a battlefield: who controls the media and popular culture, and what messages they communicate, are central to how social life is organized and how power operates. The **media are arguably the most important form of cultural production** in our society. Digital technologies are creating new ways of participating in the media that are changing the very foundations of cultural production and consumption.

This report follows a unifying trend that relates the **developments in mobility and communication throughout history**. We start our journey with the invention of the wheel to reach, after thousands of years, the first relevant milestone in the 19th century with the beginning of the railway. Not coincidentally, the telegraph followed a parallel path and started the era of **mass communication**. We do not have to wait so long to witness the appearance of the most widely used **means of transport** in the world and arguably the most referred mobility token in communication: the **car**. Some years later, radio collapsed space and enabled instantaneous mass communication. The dynamic between society and mass media that is so prevalent today started to develop. Brand **advertising** became fuel for the mass media, which turned into huge machineries of cultural production. Car marketing found the perfect loudspeaker and publicity became bright and impressionistic depicting idealized scenes directed to the wealthy classes. Before World War II, air travel was rare but the people and the press was nonetheless fascinated by it. The start of modernity was characterised by the democratisation of means of transport, mostly through the proliferation of the automobile, that became a **status symbol** as well. **Popular culture** was boosted thanks to **television** and its appeal to the masses, the **'culture industry'** began to dominate the cultural scene. A **'mass society'** began to share mass pleasures, like cheap **mass travel and tourism**. **Homogeneity** in society was accelerated by the **cinema, radio, and television**, offering attractive **role models** from America to European citizens. The ideas of **independence and freedom** gained ground in the public mind and placidly survived the effects of 1960s **counterculture**. In the 1980s, **neoliberalism** reordered social reality and our status as individuals. In media, corporate takeovers and mergers were the common rule. **Hollywood imposed its style of movies** to almost every national cinema in the world. In recent decades, the dominant trend goes **from values of docility and obedience to values of self-determination and equality**. The end of the Cold War produces the crystallization of a new global paradigm, whose maximum



social, political and economic exponent is **globalization**. Postmodernity is a time of disenchantment and a bet on individual progress. The mass media become transmitters of the truth. The **individualistic turn** at the end of the past century and the values associated with it (freedom, exciting life, pleasure, ambition, social power, wealth, authority) have been well accompanied by the media.

Today, **technology and digitalisation** are starting to exert great influence on mobility and subsequently new **hot topics** and innovations arise and connect with mobility issues: **gender, inequalities, status symbol, active mobility, sharing or privacy**.

When we wonder about the **future**, we see now that **younger generations** are slowly shifting away from the overemphasis of the speed and comfort optimization for traffic and show a growing **environmental and health consciousness**, intensive use of digital technologies and a tendency towards sharing instead of owning. Will they initiate the **cultural shift** that will allow us to reach a **sustainable mobility culture**?



1 MOBILITY CULTURE AND COMMUNICATION

1.1 Culture and mobility culture

Culture is a concept that is well known and much discussed in many different disciplines. The definition of culture is always domain-specific. 'Culture' is said to be one of the three most complex words in the English language (Eagleton, 2000). Culture can be conceptualized as sets of **practices, beliefs, ideas, values, inventions, artefacts, and attitudes** that characterize groups of people (Gangestad et al., 2006). Culture is embedded in **symbols** or material objects or **ritualized behaviours** that form different media of communication (Berezin, 2015). Accordingly, mobility culture is a socio-cultural setting consisting of travel patterns, the built environment and mobility-related discourses. Though mobility culture can vary fundamentally between cities even though underlying the same national context and social order, **REBALANCE defines the study group on a cross-national, European level**. REBALANCE follows the idea of four dimensions of mobility culture (more in *D3.1 – The REBALANCE Mobility Culture and Value Framework*) and extend them to be applicable to a cross-national scope: A spatial, an individual subjective, a political and a communicative dimension. This report is focused on the latter.

*"Molti mari e fiumi attraverserò,
dentro la tua terra mi ritroverai.
Turbini e tempeste io cavalcherò,
volerò tra i fulmini per averti".*

*"Many seas and rivers I will cross,
within your land you will find me.
Whirlwinds and storms I will ride,
I will fly through lightnings to have you".*

**Meravigliosa creatura
(Gianna Nannini)**

REBALANCE does not aim to measure cultures but tries to **understand the narrative of mobility culture** in the EU. Therefore, the REBALANCE approach takes a glance into the root of practices and produced space understanding underlying values and their implication for practices and context.

1.2 Communication

Communication refers to discourses in the society. This includes societal trends like sustainable development, equality and equity as well as their communication directly between individuals or via media, literature, arts, marketing and other means of discourses. These discourses can function as the mediator between the subjective and objective processes that shape mobility culture. These again have **a normative and a descriptive element**. Norms can be extracted from communication by its description how the majority behaves or by the implicit or explicit pressure of (assumed) expectations from an individual. The normative frame of common values in communication in a European Union context may for instance define a political scope by which 'European' actions are evaluated and nonconformist actions declared as deviant.

In this report, we look at the **relation between mass media and society**, since society and culture are inseparable and the one cannot exist without the other. In fact,



the media and what they produce can also be considered as part of culture. Most of the main theories or theoretical perspectives that exist for understanding the way media work and accounting for the typical cultural production that they engage in make the assumption that **material and social circumstances are a primary determinant**, but there is also scope for recognizing the independent **influence that ideas and culture can have in their turn on material conditions** (McQuail, 2010).

1.2.1 MASS MEDIA

The concept of 'mass communication' was conceived in the first years of the 20th century, together with the expression 'mass media' (Briggs & Burke, 2010). For more than four hundred years, the only tool for something close to mass communication was the printed word, thanks to Gutenberg's invention of the moveable type. The expansion of the railways during the 19th century paved the way for the first telecommunication revolution: the electric telegraph. Then the telephone, radio and television followed. The most recent phase in this evolution is the commercial use of telematic networks and, particularly, the advent of the Internet and **'new media', which evolve hand in hand with new technologies**. The phenomenon of mass communication is based on complex organisations who have the aim of:

"[...] producing and disseminating messages addressed to very wide and extended audiences, including utterly different sectors of the population." (Paccagnella, 2010).

The mass media institution is part of society, and its technological infrastructure is part of the economic and power base, while the ideas, images and information disseminated by the media are doubtlessly an important aspect of our culture. Rosengren (1981) offers a simple **typology** which cross-tabulates two **contrasting** propositions: **'social structure influences culture'**; and its opposite, **'culture influences social structure'**. This yields four possible options for describing the relation between mass media and society, as shown in Figure 1.

		Social structure influences culture	
		Yes	No
Culture influences social structure	Yes	Interdependence (two-way influence)	Idealism (strong media influence)
	No	Materialism (media are dependent)	Autonomy (no casual connection)

Figure 1: Four types of relation between culture (media content) and society. Adapted from McQuail, 2010.



The bigger body of theory considers **mass media as a structure** (as in Marxist terminology) that is part of society. According to **materialism**, culture is dependent on the economic and power structure of a society. In this view, whoever owns or controls the media can choose, or set limits to, what they do. The opposite consideration is **idealism**, in which the media are culture and have significant influence through ideas and values conveyed in their content. This influence works through individual motivations and actions and is one of the primary causes of social change, irrespective of who owns and controls.

The two other options – **interdependence** and **autonomy** – have less theoretical development, although there is also some evidence for both. Interdependence means that mass media and society are continually interacting and influencing each other. The media serve the demand for information and entertainment from society and, simultaneously, stimulate innovation and contribute to change the sociocultural climate, which in turn provokes new demands for communication. Neither mass communication nor modern society is conceivable without the other. From this perspective, the media may equally be considered to mould or to mirror society and social changes. Autonomy in the relations between culture and society seems unlikely if interpreted very literally, but culturally similar societies may have very different media systems. The question is how much autonomy in relation to society the media can have. It is relevant in the debate of 'internationalization' or 'globalization', which deduces a homogenization of a worldwide culture through the hand of the media. The autonomy position suggests that imported media culture is superficial and does not alter significantly the local culture (McQuail, 2010).

Despite the apparent uncertainty of the role assigned to the media in their relationship with society and culture, there is no doubt that, whether moulders or mirrors of society (no single theory holds under all circumstances), the **media are the main messengers about society**, and it is around this observation that our research can best be conducted. Thus, the general consensus is that **mass communication mediates between 'reality' and our perceptions and knowledge of it**. Mediation refers to the relaying of second-hand (or third-party) versions of events and conditions which we cannot directly observe for ourselves. Secondly, it refers to the efforts of other actors and institutions in society to contact us for their own purposes (or our own supposed good). This can be applied to politicians and governments, advertisers, educators, experts and authorities of all sorts (McQuail, 2010).

Westley and MacLean (1957) offer a frame of reference for connecting media with society through their detailed model (Figure 2). The main idea is that **institutional advocates** (politicians and governments, advertisers, religious leaders, thinkers, writers and artists) **use the media as channels for reaching the general public** (or chosen groups) **and for conveying their preferred perspective on events and conditions**. Furthermore, experience has always been mediated by the institutions of society (including the family), and mass communication is just another mediator that has been recently added which can extend, compete with, replace or go against the efforts of other social institutions. The media supply their audience with information, images, stories and impressions, either according to anticipated needs, or guided by their own interests (e.g., profit or influence). Sometimes they follow the motives of other social institutions (e.g., advertising, propaganda, public relationships, informing). **Mediation is hardly a neutral process**. The 'reality' will always be selected and



constructed to various degrees and certain consistent biases will be unavoidable. However, experience is neither completely nor always mediated by the mass media. There are still certain direct channels of contact with social institutions (e.g., political parties, trade unions, churches) and there are also some cases where direct personal experience of distant events reported in media is possible (e.g., crime, poverty, illness, war and conflict).

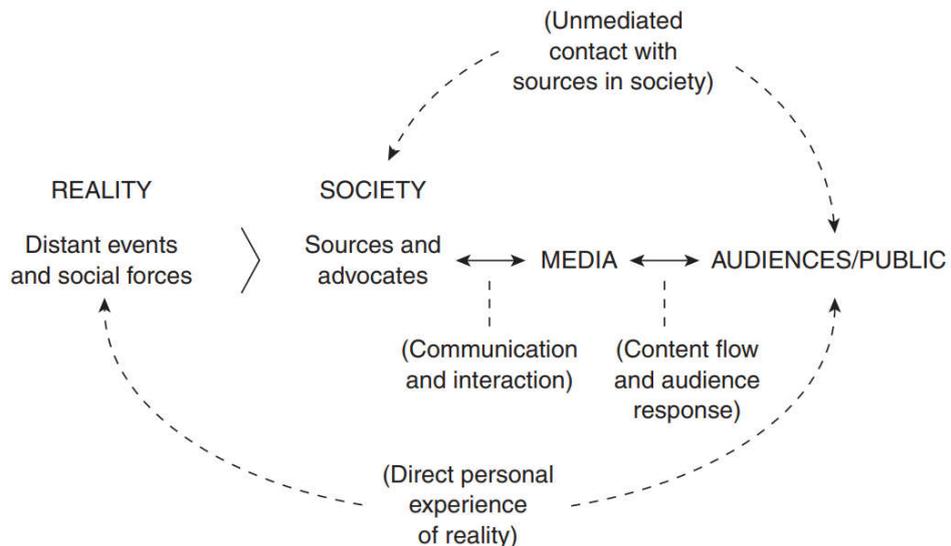


Figure 2: A frame of reference for theory formation about media and society (McQuail, 2010, based on Westley and MacLean, 1957)

The Internet has emerged as the most important medium for mass communication in our days. By accessing traditional media sources online (and commenting and sharing), people transform **formerly passive media consumption** (such as newspapers or television) into something they can **participate** in. Old media and new media now blur together. A **new catalogue of communication possibilities** is being created, most notably through social networks and instant messaging (Manza et al., 2017). Castells (2009) calls mass self-communication to this participation in a new form of Internet-centred communication because it can potentially reach a global audience, but its **content is mostly self-generated and self-directed**. The use of social media has boomed in recent years, and it rivals the scope of the traditional media. The open question for the near future is: **How will the Internet and mass self-communication change cultural systems and practices?**



2 THE BEGINNINGS OF CONTEMPORARY TRANSPORT AND MOBILITY

The history of transport and mobility goes parallel to the evolution of societies. In the dawn of civilisation, nomadic groups of people travelled out of necessity every time they depleted the natural resources of the place where they lived. To get from one place to another, they used the most natural resource at their disposal: walking. More than 4,000 years ago, the settlers of Mesopotamia realized that they needed a more efficient form of transportation. Between 3700 and 3200 BC they invented and began to use the wheel. In each cart or carriage, they used four wheels and two axles, in addition to using the force of the animals to drag the load. This innovation was a revolution in speed and load

*"Yo soy el amo del mundo,
yo no me cambio por nadie,
yo mando en la carretera,
y además tengo a mi mare
y una mujer que me quiera".*

*"I am the master of the world,
I don't change for anyone,
I rule on the road
and besides, I have my mother
and a woman who loves me".*

**El rey de la carretera
(Juanito Valderrama)**

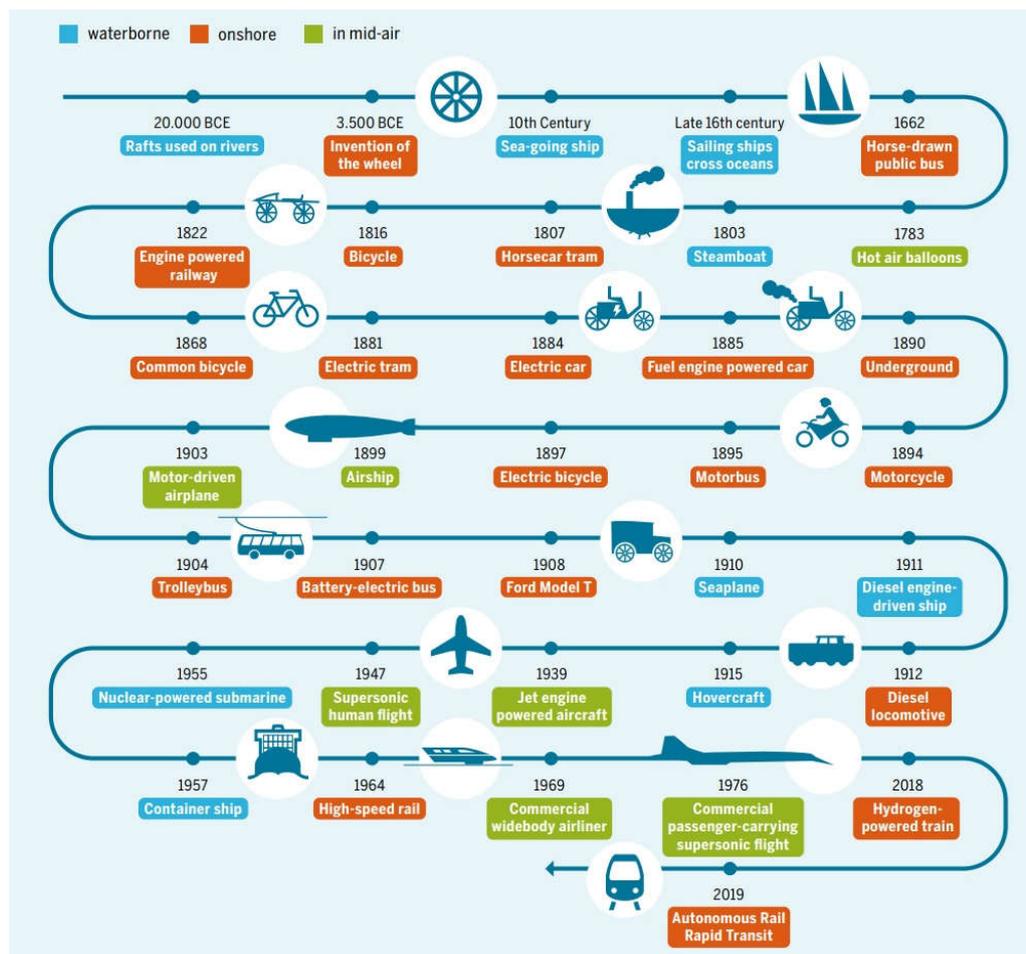


Figure 3: Selection of innovative means of transport and events for traffic. (Source: Böckmann, Duwe-Schrinner, Kurzhöfer, CC BY 4.0)



This project has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No. 101007019

capacity. From then on, civilizations such as Egypt, Persia, Greece, and Rome adopted and improved the quality of chariots for different purposes.

Thanks to the invention of the wheel, societies began to **explore new territories**. They settled in areas near rivers, seas and oceans and built the first boats. Roughly at the same time as the invention of the wheel, around 3500 BC, the first forms of maritime transport are recorded. Rudimentary boats were able to carry small loads and a few crew members on short distances with the force of hands and feet. Then came the canoe, which moved thanks to oars manipulated by human power. Egyptians, Greeks, and Romans introduced sails and masts. By harnessing the power of wind, vessels evolved into large galleys, caravels and frigates that could carry hundreds of men on board and allowed the first **transoceanic voyages**.

There were no remarkable advances¹ in transport and mobility until the 19th century, when the **invention of the steam engine completely changed society**, its ways of traveling, producing and consuming. In the case of navigation, the engine multiplied the capacity to transport people and goods. The submarine was also a great achievement for water transport: for the first time, human beings were able to navigate under water. A further development of land transport took place as well; in the 1820s, the English engineer George Stephenson invented the **locomotive**, an engine that used the energy of steam to pull wagons. It was the beginning of the **railway**, which has continued until today's high-speed trains.

In 1836, Johann Strauss I composed the "Eisenbahn-Lust Walzer" (Railway Delight Waltzes) to celebrate the opening of the public railway line Vienna-Břeclav, one of several railway pieces written by members of the Strauss family. "Le Chant des Chemins de Fer" (The Song of the Railways) was commissioned to enthusiastic advocate of train travel Hector Berlioz by the Chemin de Fer du Nord company in 1846 to mark the inauguration of the Paris-Lille-Brussels railway line. A **fast-expanding industry** poured money into music to promote its services.

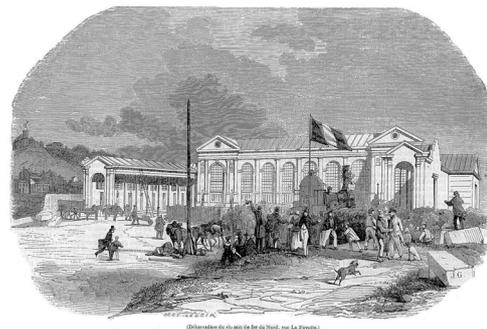


Figure 4: Piano score of Strauss' "Railway Delight Waltzes", 1836 (left). Scene of the inauguration of the Paris-Lille-Brussels line, 1846 (right)

¹ In 1662, French mathematician and philosopher Blaise Pascal developed in Paris the "carrosses à cinq sols" (five-sol coaches), the first modern form of public transport in the world, something that could be regarded as a fascinating meeting point between mobility and culture.



In 1886, another engine revolutionised transportation again; the German engineer Carl Friedrich Benz invented the **first car**, which over time has become the most widely used means of transport in the world.

Along a parallel timeline, **telegraph technology** that began in the mid-1800s, continued to spread through the early 1900s to network the globe and it made possible for messages to spread in minutes. As a result, the **production of mass media messages accelerated with the growth of newspapers**. The development of a global telegraph network made it possible for messages to spread in minutes. The world saw the **rise of fast, global, mass communication that had the power to potentially influence large groups of people in an instant**. Major institutions and organisations developed their own papers to cover the topics that suited their agendas and to promote the cultural values that they cherished. Some years later, radio collapsed space and enabled instantaneous mass communication. Cinema and television began an evolution that spanned throughout the 20th century. The dynamic between society and mass media that is so prevalent today started to develop. Communication flows began to move at high speeds (Poepsel, 2018). Hence, it can be seen that a **shared primary function of both transport and communication is to save time**.

As mass production of manufactured goods grew, so did advertising budgets and the concept of brands. **Brand advertising became fuel for the mass media**, and profit rose. The profit motive drove the change in order to attract bigger audiences. The scene was set to allow **mass media channels to turn into huge machineries of cultural production**. In that context, the people who had the most wealth and power in society

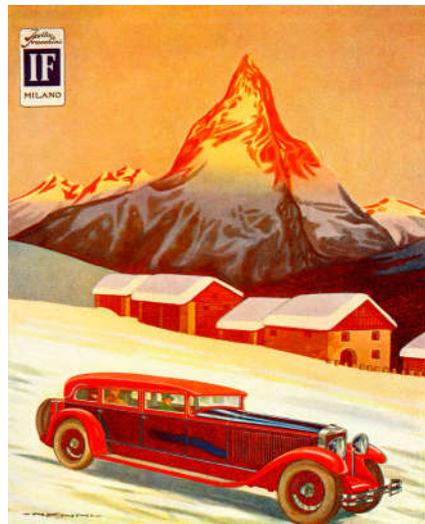


Figure 5: Isotta Fraschini advertisement. 1928

also had the greatest ability to produce and distribute their own ideas and culture. In nineteenth-century Europe, **capitalists, such as factory owners and bankers, used their influence with newspaper owners, politicians, and some intellectuals, and were able to make liberty and freedom the dominant ideas of the age** (Manza et al., 2017). In the early 20th century, the new technologies began to give hope of wider improvements and a remarkable outburst of a creativeness occurred. Marinetti published in Le Figaro in 1909 the "Manifesto of Futurism", which rejected the past and hailed progress, industry and speed as modern gods². Starting in 1910, the "Cubist decade" gave the models and the methods of a new art, just as the natural and social sciences had begun to do. In painting and sculpture, in music and poetry, and in architecture especially, the new qualities were

simplicity, abstraction, and the importance of mass. This truly modern art was indeed Constructivist, as it meant to reconnect itself to contemporary life and, as such, it valued

² One of the well-known sentences of the manifesto reads as follows: "... a roaring automobile, which seems to run on machine-gun fire, is more beautiful than the Victory of Samothrace".

the products of technology even resembling the creations of industrial engineers (Salmon et al., 2020).

Car marketing began with very simple black and white adverts, produced soon after motor vehicles were invented. These simple adverts were a sign of the times, emphasizing that cars were the **ultimate luxury**. In the 1920s publicity became brighter with beautiful Art Deco illustrations, as ad agencies were brought in to drive the creativity of the adverts forward. Cars became more common and ads became more impressionistic, focusing less on functional features, and more on illustrating **idealized scenes**. Many automotive makers began to market their cars to the wealthy classes. In Figure 5 we can see the example of the Italian quality luxury car brand Isotta Fraschini, which was driven by film stars of the time, like Rudolph Valentino, further increasing their appeal. This advertisement uses the allure and mystique of an alpine scene to entice its audience.

One of the outcomes of the First World War was an **imbalance between the sexes** - a shortage of men that at the time was sometimes called 'the problem of surplus women'. Women had been recruited into the civilian work force in factories and offices during the war. The net result was an encouragement of **women's emancipation**, although women's suffrage was delayed until the 1940s in many countries (Salmon et al., 2020). In order to celebrate the independence of women, Tamara de Lempicka painted her famous self-portrait driving a sports car for the cover of the German fashion magazine "Die Dame" in 1925 (Figure 6). It is one of the best-known examples of Art Deco portrait painting.



Figure 6: "Autoportrait (Tamara in a Green Bugatti)". Tamara de Lempicka. 1925

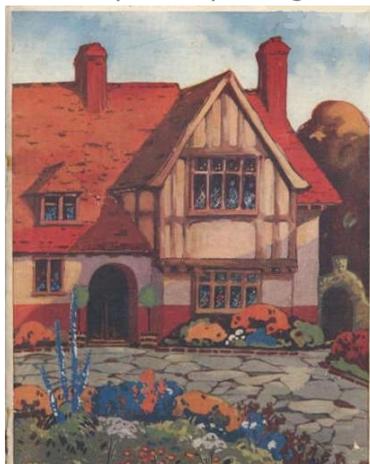


Figure 7: Cover of the Metro-Land booklet published by London's Metropolitan Railway in 1921

But the mood after 1918 was not so euphoric as at the beginning of the century. German poet Rainer Maria Rilke exchanged letters with French novelist André Gide in which he bemoaned "the crumbling of a world," and both complained of the complications caused by passports and frontier formalities, looking back nostalgically to the carefree "journeys of long ago". Economically, there was **gradual revival of prosperity** in most of Europe, over all for the **middle classes**. 'Ribbon development'³ of suburbs was providing new houses on the cleaner outskirts of cities, served by expanding urban transport systems, such as Metro-Land (Figure 7), which were the

³ Ribbon development is building houses along the routes of communications radiating from a human settlement. (Wikipedia)



suburban areas built at that time to the north-west of London that were served by the Metropolitan Railway. Songwriters and novelists included the term in their works, which entered the public psyche.

Flying had always been one of the **greatest dreams of mankind**. At the end of the 18th century, the Montgolfier brothers built the first hot air balloons. A hundred years later the airship was invented, which unlike the balloon could be controlled during flight. But the great milestone of air travel came on 1903, when the Wright brothers succeeded in carrying out the first powered flight in history. Thereafter, the world distances shrunk and aeronautical technology evolved into today's commercial aircraft and spacecraft. Air travel was rare but the people was nonetheless fascinated by its magic.



Figure 8: Front page of L'Humanité the day after Lindbergh's landing in Paris. 1927

Both the press and the public will sing the praises of American aviator Charles Lindbergh for weeks. Actually, he was not the first to cross the Atlantic by air (an American seaplane and a British plane did so in 1919), but he was the first to have done so alone. All the newspapers closely followed the odyssey and transmitted to their readers the slightest information on the flight. Lindbergh entered into legend when he landed at Le Bourget airport after a 33-hour journey aboard his plane, the Spirit of Saint Louis, where 200,000 people were waiting. One of the columnists of the French newspaper L'Humanité wrote that day:



“Two continents are approaching. Millions and millions of men, today on both sides of the ocean, will feel closer to each other, more fraternal. And that is a revolutionary victory”.

The economic crisis of the 1930s and the rise of totalitarianisms in Europe (the Soviet Union, Italy, Germany, Spain, Portugal...) brought the continent to the brink of destruction in the Second World War. A **great technological leap forward and a different society emerged** from the ashes of battlefields and destroyed cities.



3 FROM MODERNITY UNTIL YESTERDAY

The **modernisation and democratisation of means of transport** after the first half of the 20th century led to enormous benefits for many individuals, enhancing their **mobility, social permeability and comfort** to a great extent.

*"Oh Lord, won't you buy me a Mercedes Benz?
My friends all drive Porsches, I must make amends".*

**Mercedes Benz
(Janis Joplin)**

The Second World War left Europe destroyed and its cities shattered. The typical **infrastructure of today's cities is planned around the automobile**. Rebuilding took place during a time when the car was gaining prominence. European cities were mostly built before motorisation, which meant that as auto mobility spread, taking up space and increasing speed, not only did sidewalks have to be clearly separated from driveways, but cars had to be given much more room. Cities give the car exclusive space, whether for work, shopping or leisure. The car is allowed to drive quickly through populated areas - compared to the speed of everyone else moving around town. We take this for granted, like something naturally given. However, the **privileges of the car are manmade – and come at the expense of the many** (Klaas, 2021). Practices, landscapes, institutions, knowledge and cultural representations centred on the privately owned car, collectively making up automobility (Sheller and Urry, 2000), came to dominate surface transport. Beyond their **functional purpose**, cars have been often considered a **status symbol**.

Mass media channels were evolving into huge engines of **cultural production**. They made the entertainment that helped define who the individuals were as large and small groups of people. In media, we find three types of cultural works, those associated with **high culture, popular culture and folk culture**. High culture is possibly the best cultural material a society can share. As might be expected, economic class often intervenes in defining what is high culture and what is not. Pop culture is the large array of cultural products that appeal to the masses. Folk culture refers to cultural products coming from everyday life which usually have both practical and artistic value. Much of the interpretation and the value of cultural production is culturally relative. This means that **cultural value is determined by perceptions** of people in different cultural groups (Poepsel, 2018).

German philosophers Adorno and Horkheimer (1947) argued that the **popular culture that dominated the public sphere encouraged a passive, conservative public**. Their critique was addressed at popular music, movies, and other types of mass culture – the 'culture industry' in their own words. Their chief complaint was that popular culture encourages audiences to passively consume what they are watching, reading, or listening to rather than participating or engaging creatively with the work. Thus, the kind of culture that the culture industry produces is utterly standardized, commoditized, and does not challenge the status quo. It is advertising rather than art.

Other authors branded Adorno and Horkheimer's argument as too pessimistic. In line with Habermas's concept of public sphere, they believed that **popular culture provided a forum** where debates about the meaning of the good life and the conditions for attaining it were held. Gans (1974), for one, claimed that popular culture was user driven. Since cultural producers wanted to attract an audience, they tailored



their art to reflect popular preferences. Movie studios wouldn't keep releasing the same kind of movies if people chose not to watch a certain kind of movie. In that sense, people vote with their time and money. According to this approach, popular culture is an element of cultural democracy. Different cultural styles exist because they satisfy the needs and wishes of some people, even if they dissatisfy those of other people.

Who controls popular culture and who benefits from it? Is it the corporations that produce it at a profit, or the public who consumes it, shares it, and enjoys it? If record labels, movie studios, and advertising agencies heavily push the latest songs and movies on us, when we enjoy them are we deceived or are we exercising cultural free will? People exercise cultural preferences when it comes to consuming media, but mass media corporations often decide which stories to tell and which to promote, particularly when it comes to forms of mass media that are costly to produce such as major motion pictures, major video game releases and global news products. More than any other, the field of **mass communication transmits culture** (McQuail, 2010).

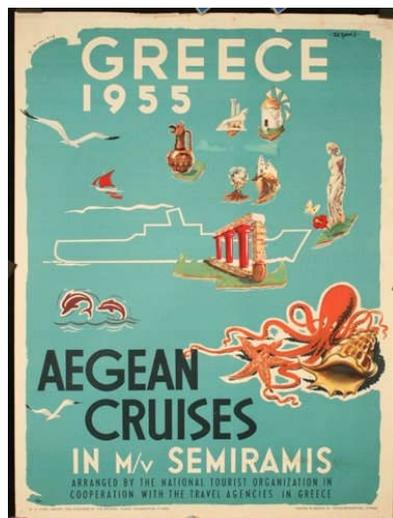


Figure 9: Greece's National Tourist Organization poster. 1955

On the economic side, 1950s Europe saw process of social levelling upward, with both **greater social mobility and fewer blatant class differences**. A 'mass society' began to share mass pleasures, like cheap **mass travel and tourism** (Figure 9). Paid (salaried) holidays for many European workers, a new use of excess aeroplanes after the war and a spread of television, bringing images of the rest of the world to almost every household, were some of the developments that favoured the European mass tourism market growth, which grew relatively from richer and more developed European countries' tourism demand for holidays to rather less developed southern (in other words Mediterranean) countries. The necessity for travelling international inside (short-haul) the continent brought new actors as organizers in tourism, namely tour operators. Tour operators, charter flights, and inclusive tours –especially holiday packages– were the identifiers of European mass tourism in the golden age of mass tourism (Sezgin and Yolal, 2012).

Homogeneity, both vertically within societies and horizontally between them, was accelerated by the cinema, radio, and television, offering **attractive role models** (Figure 10) from the other side of the Atlantic to Western European citizens.

"On the Road" by Jack Kerouac was published in 1957. It is arguably the most well-known road trip book ever written, which has inspired



Figure 10: The iconic Vespa ride in the film "Roman Holidays". 1953



countless generations and imitations. The book details his travels with his friends across America. The book heavily influenced the **counterculture movement of the 1960s** and helped spread the idea of **traveling as a way assert one's independence**. The freedom of the road defines a primary identity that replaces the rigid ladder of success established by society. Though the American roads and landscapes have nothing to do with the European scenery, the novel was highly influential in our continent.

In 1963, Umberto Eco published the essay "Fenomenologia di Mike Bongiorno" (Phenomenology of Mike Bongiorno) in what is considered to be one of the earliest examples of television criticism. Eco analysed from a semiotic point of view the reasons for the success of the Italian-American television presenter Mike Bongiorno; extremely popular at the time. The author examines the **sociological effects caused by television** in the Italy of the economic boom. According to him, **mental massification** is a product of television consumerism and the **mediocrity of the models** which viewers are constantly coaxed into conforming to:

"[...] Now, in the field of quantitative phenomena, the mean represents a middle term, and for those who have not yet conformed to it, it represents a goal. [...] Instead, in the field of qualitative phenomena, the levelling to the mean corresponds to the levelling to zero. A man who possesses all the moral and intellectual virtues to a medium degree finds himself immediately at a minimal level of evolution. Aristotelian mean is equilibrium in the exercise of one's passions, governed by the discerning virtue of prudence; while nurturing passions to a medium degree and having an average prudence denotes being a poor example of humanity". (Eco, 1963).

That same year in the same country, Roberto Rossellini announced that he was retiring from the cinema to devote himself to television. He attempted to rediscover the values that had been lost by a tainted and childish society. He aspired the **new public medium** that he aspired to become a **utopian and didactic tool**: A state television channel can only justify itself if it truly acts, as stipulated by the law, like an "indispensable service of general interest", and "takes part" in the **"social and cultural development of the country"**. Television could develop a cultural promotion model that is accessible to everyone. Because it draws on images, it would largely manage to overcome the difficulties associated with teaching (Salvadó Corretger, 2012).

By the end of the 1960s, a consumptive delusion trend emerged, symptomatic of a **countercultural youth that would challenge their parents' worldview**. This so-called counterculture also produced the so-called **sexual revolution, which didn't work out so well for women**: it essentially became an excuse for advertising executives for putting more images of dumb ladies everywhere. In fact, with the exception of the 1920s and 1930s—where women were often depicted, automotively speaking, as in control of their destinies—females in car ads were usually shown as helpless passengers and simpletons, focused on in-car makeup mirrors. This persisted through the 1970s and 1980s. Except now they were wearing bikinis while sprawled atop the hood of a sports car.

There is broad consensus that a **profound change in values** has been observed in European societies since the mid-1960s. In recent decades, the dominant trend goes **from values of docility and obedience to values of self-determination and**



equality. Many studies on value change stress the growing importance of freedom of choice and equality. They consistently state a so-called '**emancipatory**' change in values – only differing in their interpretation as 'post-materialistic', 'libertarian' or as directed towards 'self-development'. The post-materialism thesis (Inglehart, 1977) states that materialistic values precede post-materialistic values, but the former will be replaced by the latter when economic conditions improve (and vice versa). Under this view, there is a clear relationship between economic development and an 'emancipatory' change of values. According to the analysis of historical materialism (Marx and Engels, 1845), ideas and fashions don't just change by pure chance over time; they respond to other changes in a society's political and economic circumstances. Following this premise, cultural production is a historical phenomenon.

In the 1980s, **neoliberalism** took the stage by the hand of Thatcher and Reagan, who helped shape **society as a kind of universal market** and human beings as profit-and-loss calculators. The goal was to weaken the welfare state and to cut taxes and deregulate. This produced a way of **reordering social reality**, and of rethinking our status as individuals. Urged now to think of ourselves as proprietors of our own talents and initiative, we are told to **compete and adapt**. A whole language formerly confined to describing commodity markets (competition, perfect information, rational behaviour) had been applied to all of society. The attitude of the salesman had become entangled in all modes of self-expression. In many areas of life, **users became consumers**.

In media, as in other large industries, corporate takeovers and mergers were very common. Many new specialty magazines emerged that reflected the trends of the times that escalated into the 1990s: computers and technology; sports; cars; health; men's and women's magazines. New styles of photography, computer animation and videotape composing turned the music video into a new art form. The marketing power of American cinema caused other national cinemas to suffer. Some **national cinemas copied the Hollywood style of movies**, while others struggled to stick to their cultural context.

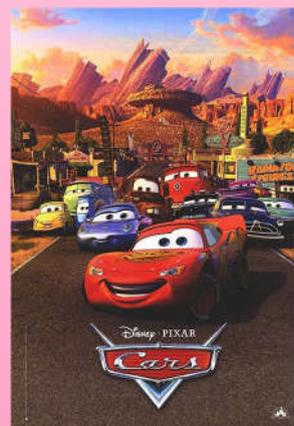
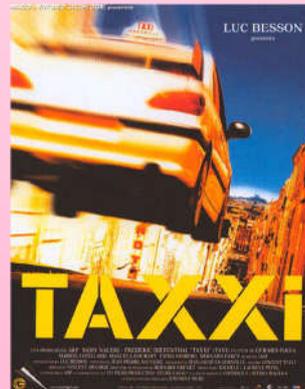
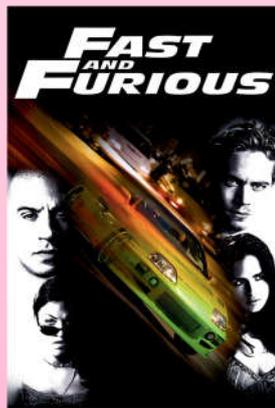
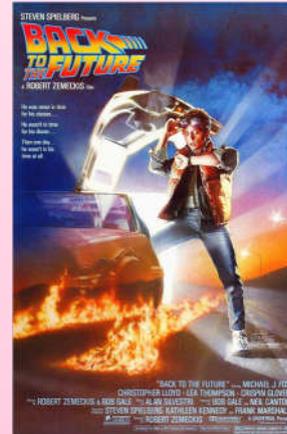


Figure 11: "Need for Speed", 1996 (left) and "Grand Theft Auto", 1997 (right) started two of the most popular videogame series of all time



The car, always the car

Cinema and cars are a perfect match, an eternal love story. Besides their primary function as modes of transport and their recognized feature as status symbols; thanks to the unlimited possibilities offered by the big screen, cars can become anything: sophisticated weapons, time machines, crime stoppers, carnival rides, sexy attractions, living beings...



This project has received funding from the European Union's Horizon 2020 research and innovation program under the grant agreement No. 101007019

Schwartz (1992) suggested that values could be organized according to the motivational goals they express. Analysing the needs of individuals and the requirements for societal survival, Schwartz identified **ten motivationally distinct types of values**: conformity, tradition, universalism, benevolence, power, achievement, hedonism, stimulation, self-direction, and security. The first four value clusters refer to **social values**; while the other six clusters reflect **individualistic values**⁴. The opposition between individualism and conformism (or collectivism) has a firm place in comparative cultural psychology (Hofstede 1980; Triandis 1995). The typology is used, for example, to describe the difference between cultures with more 'independent' and those with more 'interdependent' identity patterns. With predominantly independent identity patterns, people primarily define themselves as autonomous individuals and not as members of a group. This is what cultural psychologists use to establish an **individualistic culture**. In contrast, with predominantly interdependent identity patterns, people primarily define themselves as members of a group, which is an expression of a **collectivist culture**.

The end of the Cold War produces the crystallization of a new global paradigm, whose maximum social, political and economic exponent is **globalization**. In contrast to modernity, postmodernity is the time of disenchantment. **Postmodernism** and the political philosophies associated with it put a more intense **focus upon individualism** and promote values such as independence or self-reliance. Utopias and elaborate ideas of progress are renounced in favour of a bet on individual progress. There is a change in the capitalist economic order, going **from a production economy to a consumer economy**. The great charismatic figures disappear and countless small idols emerge that last until something newer and more attractive emerges. The **mass media and the mass consumer industry become centres of power** under the idea of reevaluating the way messages are transmitted and the degree of conviction they can achieve. They become transmitters of the truth, which is expressed in the fact that what does not appear on the mass media simply does not exist for society. The receiver moves away from the information received, depriving it of reality and relevance, turning it into mere entertainment.

The **individualistic turn** at the end of the past century and the values correlated with it (freedom, exciting life, pleasure, ambition, social power, wealth, authority) were well



Figure 12: TGV action scene from "Mission: Impossible". 1996

accompanied by the media. Sadly, goals like **solidarity, that has an altruistic dimension and it is mostly related to sustainable behaviour, were not taken into account**. Ironically, **public transport is often shown under a negative light**, unless it is a source of excitement and distinction, like in the case of airplanes

or high-speed trains (Figure 12). Buses are for 'losers', see some extreme examples in

⁴ For a more detailed explanation see "D3.1 – The REBALANCE Mobility Culture and Value Framework".



“Bad Lieutenant” (1996), when the cop takes the rapists to the bus station; the final scene of “Midnight Cowboy” (1969) or the bus laughing scene in “The Joker” (2019).

In 1996, the European Parliament and Council decided to adopt the Trans-European Transport Network (TEN-T)⁵. The TEN-T is a planned network of roads, railways, airports and water infrastructure in the European Union. It is part of a wider system of Trans-European Networks (TENs), including a telecommunications network (eTEN) and a proposed energy network (TEN-E or Ten-Energy). The TEN-T is a trans-European idea that has the ultimate objective to close gaps, remove bottlenecks and technical barriers, as well as to **strengthen social, economic and territorial cohesion in the EU**. It is almost certain that no one is going to write an epic novel or sing a romantic ballad about transport networks, but it is heart breaking to see how, to a great extent, the press of each member state has been pushing their readers towards nationalist agendas in a fight for attracting funding instead of acknowledging the benefits of territorial cohesion and sustainability.

Strangely enough, the **idea of a ‘European culture’ is a complicated one**, on which it is possible to take different approaches. One point of view is to emphasise the shared heritage of the continent’s countries, based on a shared history of democracy, liberal economic regimes and value-sources such as the Enlightenment, the French Revolution and the two World Wars. Another view stresses cultural difference, seeing unique elements in each country and the continent as multi-cultured patchwork. A third idea combines elements from the previous two, arguing that culture exists at different levels and that, whilst each country and communities within other countries should be regarded as culturally distinctive, there is also something that sets the continent apart when compared to other ‘Western’ cultures such as the United States. Such a view often revolves around values of ‘openness’ and ‘tolerance’ which are seen as more European in nature. Finally, it is also possible to argue in the opposite direction, that in fact ‘Western’ countries are so similar culturally (especially in an era of globalisation) that there is actually little to distinguish European countries from other ‘Western’ extra-European countries such as the US (Eurobarometer, 2007).

Europe is the continent where multiple forms of transportation have been invented or brought to technological maturity. The **free movement of persons has made Europe grow together and led to a strong sense of cohesion**. Cross-border mobility is a prerequisite for a united EU and the experience of inter-connectedness on all levels (Keim and Cerny, 2021). Indeed, **freedom is a particularly central term in mobility studies, as it foregrounds sovereignty as a vital force shaping humanity** (Salazar and Jayaram, 2016).

European mobility as it has developed has empowered many people and implies self-determination but **these achievements also generate social and ecological stresses**. Mass tourism and trips on aircraft and cruise ships, presented by the media as the good life, are particularly harmful to the environment (Keim and Cerny, 2021).

The media have brought messages of what is new and fashionable in terms of goods, ideas, techniques and values from city to country and from the social top to the base. They have also portrayed alternative value systems, potentially weakening the hold of

⁵ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31996D1692:EN:HTML>



traditional values. A key question that follows on from the preceding discussion is **whether or not mass communication should be viewed primarily as a cause or as an effect of social change** (McQuail, 2010).



4 TODAY AND THE NEAR FUTURE

With the omnipresence of global computer networks, especially high-speed broadband and mobile communication technologies, people are able to publish their own work and to comment on mass media messages like never before. Mass media made possible by digital information networks in the 21st century have taken on a many-to-many format, as **users submit their own content and share what other mass media produce**. There is a decentralisation of the process of deciding what people should be interested and the methodology of making meaning in society (i.e., telling many smaller stories that add up to a narrative shared by mass audiences) is now much more collaborative than it was in the 20th century. On social

media platforms, media consumers can add their input and criticism, not only as audience members in the content we would like to see, read and hear, but also as actors who have an important role to play in society holding their elected officials accountable. **Societies have democratized mass communication, but it is becoming more difficult to agree on a shared narrative or even a shared list of facts**. Users create virtual bubbles where they mostly hear the voices and information that they want to hear. This has the potential risk of creating opposing worldviews with different sets of facts that create different images about what is actually happening in the world and how society should operate (Poepsel, 2018).

Mobility is always changing in response to evolving social interests, demographics, new technologies, consumer preferences, connectedness, alternative energies, and new business models and policies. Future changes are in sight but there is **great uncertainty about the pace of change and which mobility options will succeed**. Will space be one of the choices? Three billionaire entrepreneurs - Jeff Bezos, Elon Musk, and Richard Branson - are each fiercely competing to usher in a new era of private commercial space travel, while the world media cover enthusiastically this second space race (Reuters, 2021). Complex interactions between engine technologies, fuel options, refuelling infrastructure, consumer choices, media attention, public transit options, new transportation modalities, and government policy might shape the future landscape for mobility.

Some innovations pave the way for new modes of transport and new ways to communicate with users and optimise services. Furthermore, several European cities are living examples for the design, development, and testing of many of these **new mobility solutions**; from soft mobility to ride-hailing apps, from hard infrastructure for self-charging vehicles, to light rail or even aerial trams (UIA, 2021).

This said, how is technological innovation to be deployed and coordinated? **Will cities actually switch people from their cars to their bicycles?** New technologies will

*"Si véns amb mi,
no demanis un camí planer,
ni estels d'argent,
ni un demà ple de promeses, sols
un poc de sort
i que la vida ens doni un camí ben llarg".*

*"If you come with me,
don't ask for an easy path,
neither silver stars,
nor a tomorrow full of promises, just
a little luck
and may life give us a very long way".*

**Que tinguem sort
(Lluís Llach)**



undoubtedly require **new forms of policy process, new shared goals, new incentives, and new forms of stakeholder collaboration**. This implies a **radical change in behaviours** and even mind-sets both among policy stakeholders and citizens. In urban mobility, both for policy development and for service provision per se, the new fuel is data. This new resource will be surely exploited to transform urban mobility.

People use different means of transport with different functions and different destinations and purposes. So, in order to communicate mobility effectively and efficiently, the elaboration of **specific, diversified communication methods will be required**. Today, this task demands the communication ability of a **'brand'**, i.e., a set of tangible and intangible values able to represent a distinctive identity and promise a unique experience. An accessible, clear, correctly built brand, with contents replenished and transmitted intelligently can help consumers to understand the benefits of sustainable transport, a 'modal shift' in mobility or the introduction of a regulation that changes the status quo (Zavatta, 2019).

The correct **planning of the communication strategy for sustainable, aware mobility** is a critical factor for achieving a quality result in economic and efficiency terms. But maybe more importantly, a **political and ethical responsibility towards the new generations**, the ones that will deal with the challenge of the future that we are already immersed in. Communicating consists of wondering 'why' about things and sharing clearly the 'reasons why' without forgetting that mobility is best expressed in our thought and in our ability to imagine (Zavatta, 2019). However, active communication can have positive impacts only in case of the provision of high-level services, therefore when relevant transport services have been developed before the launch of the communication campaign (Mobilissimus, 413).

4.1 Hot topics

- **Gender**

Mobility is not gender neutral. This not only pertains to individual mobility, but also to the transport and planning sectors themselves, which are heavily dominated by men. Social stereotypes and role distribution within a predominantly male workforce, as well as care work mostly carried out by females, do the rest to create an environment that is aligned with male needs. Although this situation is **changing slowly**, a male and stereotypically technical perspective still dominates today's mobility. Female mobility is less visible since a considerable share of their work is unpaid, and thus not accounted for by classic means of transport data registration. Female mobility is also more complex than male mobility; as a result, it relies on a functioning multimodal transport system. For women the benefit of a means of mobility is not simply as a way to get from A to B, but also in the **shaping of the public space**. They have **different safety needs** than men, and they must devise strategies for moving around in public spaces to feel less vulnerable. In the media and in public discussions, women and marginalised people have difficulties participating or being heard with regard to their special needs. This is



certainly a reason why there is a **significant unawareness** of their safety and inclusion needs (Klaas, 2021).

In Europe, gender mobility is part of the “Strategy for equality between women and men 2020-2025”. The EU has identified a set of **actions to move towards social equality between genders**, with the aim to address some of the still remaining gender gaps. The actions proposed follow a dual approach: **gender mainstreaming and specific measures**. Gender mainstreaming is the integration of the gender perspective into every stage of policy process (design, implementation, monitoring and evaluation) and into all policies of the Union, with a view to promoting equality between women and men. Gender-specific measures in transport planning are becoming more frequent in all European cities. The communication of a gender sensitive perspective supports a planning culture informed by everyday needs and nurtures greater awareness of the different needs of women and men in relation to life phases, life realities, cultural and social backgrounds (Civitas, 2020).

Local authorities have **communication teams** tasked with providing up-to-date information on public services, taxes, regulations, planning laws, new initiatives, elections, rights and much more, to a variety of audiences. Both online and in print, these resources rely on visual graphics and descriptions to convey information which **risk portraying women and men in stereotypical roles**. Whether it be women represented as fulfilling care or domestic chores, while men perform physical labour or scientific work, the words and images the city uses are in danger of **reinforcing out-dated ideas** about the family, workplace and what it means to be a man or a woman. On the other hand, with well-conceived guidance these images and messaging can instead represent the **diversity** of the city, the contributions of women and men in positive ways, that instils a sense of **civic pride and belonging** (URBACT, 2019).

Like in previous decades, media and advertisings continue to influence on **men’s use of private cars**. Advertising has sold us the idea that a successful, powerful men drive big cars, and that a car ‘complete’ them (Ramboll, 2021). On the other hand, European societies are more and more vigilant regarding gender issues like sexualisation or misrepresentation; and many initiatives exist to promote gender equality and reinforce **women’s empowerment in the media representations**, such as UNESCO’s Gender-sensitive Indicators for Media⁶ contributing to gender equality and women’s empowerment in all forms of media.

- **Environmental and electrical**

Nowadays we are figuratively bombarded by thousands of adverts praising the **benefits for the environment of hybrid or fully electric vehicles**. Having this in mind, it might seem paradoxical to remind that vehicles equipped with an electric motor were created much before cars with an internal combustion engine. By the

⁶ Gender-sensitive indicators for media: framework of indicators to gauge gender sensitivity in media operations and content. UNESCO, 2012. <http://unesdoc.unesco.org/images/0021/002178/217831e.pdf>



end of the XIX century the production of electric vehicles had been long established in Europe and the United States and reached several thousands of units, several times higher than the number of gasoline vehicles. In the first decades of the XX century, there were the cars with internal combustion engines and electric vehicles in the streets of major cities. Despite the **indisputable advantages electric vehicles had in an urban environment**, their ratio slowly but surely decreased. In 1920, their number was reduced to 1% (Gelmanova et al, 2018).

The electric car market is still small, partly because it is widely **perceived as a luxury niche**, and not just another means of transportation. However, car manufactures and marketing companies are putting the accent on the advantages of the electric vehicle in tune with **environmental friendliness and the absence of emissions**. This approach goes hand in hand with the progressive improvement of the main limitations to the popularisation of electric vehicles such as reduction of costs, extension of battery life, greater autonomy or the expansion of the network of charging stations.

Electricity supplied for charging electric vehicles can be obtained at traditional power plants (e.g., gas, coal, nuclear) or from renewable energy sources (via solar, hydro or wind power). However, the main message conveyed to the potential user is that only clean sources of energy will be the ones charging the batteries of her or his car. On the other hand, superior energetic efficiency is also claimed as a winning factor on the market. But even from a pragmatic point of view, it is difficult to believe that the public will be more attracted in the near future by the argument of mechanical performance than by those of **fun and status**.

- **Inequalities**

Freedom of movement is one of the fundamental principles of the Universal Declaration of Human Rights (UN, 1948) in order to provide access to basic necessities such as healthcare and education, and participate in socio-economic activities to achieve decent standards of living. However, in practice, **differences in the ability and capacity to travel** exist. These differences of mobility inequality can be attributed to (1) individual characteristics (age, gender, disability or income); (2) the spatial factors and geographical context (location, distance, or urban configurations); (3) institutional factors (the planning system and transport infrastructures and services); (4) the socio-cultural constructs (norms and values attached to travel activities) and (5) potential and realized accessibility in public or private spaces within a city as a result of the aggregation effect of mobility (Yamu et al., 2020). The interplay of these factors can either **enhance or limit individual transport mobility options** and create and maintain mobility inequalities and lead to **social exclusion for vulnerable and marginalized groups** (i.e., the elderly or the poor).

The current **Covid-19 pandemic exacerbates social inequalities** and, of course, mobility inequalities. The latter are specifically harmful as they affect a large swath of society and can hamper the ability to access daily needs in the short-term,



the loss of socio-economic opportunities in the mid-term or even intergenerational poverty in the long-term in an automobile-oriented society.

It seems pretty clear that we are continually learning about and engaging with **persistent inequalities that are a consequence of the global trust with neo-liberalism** (Thomas, 2017). In order to be able to tackle inequalities in society and promote social and economic inclusion and sustainable practices; communication and media play a fundamental role. Different preventive communication strategies can be distinguished: public information campaigns,



Figure 13: OXFAM campaign against growing inequality. 2014

journalism, and entertainment education, among others. There has been a shift to an individual perspective and qualitative studies that give important hints for the **construction of preventive messages**, so individual understanding and interpretation of a message have to be taken into account. Even **participative approaches** offer great potential and should be regarded in the future (Singhal et al. 2004). Since **transport inequality is strongly correlated to economic inequality**, it is no coincidence that Oxfam used the image of a bus in its campaign (Figure 13) before the 2014 World Economic Forum in Davos to denounce that the richest 80 people on the globe control as much wealth as the poorest half of the

global population put together. The metaphor of the bus serves as a representation of quantity, but also as a symbol of the realities people from different classes live in. It would be hard to picture the world's wealthiest and most powerful people travelling on something as common as a double-decker instead of their private jets and helicopters.

- **Status symbol and alternatives**

Some might say that mobility is changing and "the times in which the car stood as a status symbol in front of the front door are slowly but surely over" (Kleebinder, 2018). That is arguably a trend in Western Europe, where there is evidence that **Millennials, especially men, are less interested in owning and driving cars than the previous generation**, and more attracted to alternative modes of transport. However, the **opposite seems to be true in parts on Central and Eastern Europe**. Three decades after the demise of state socialism, cars are still considered as a necessity and/or a status symbol, even among adolescents who never experienced socialism and its restrictions on car ownership and use (Pojani et al., 2018). Cars are purchased not only to fulfil mobility needs but also to **signify freedom and a higher socio-economic status in a market-driven, competitive milieu**.



To understand people's mode choice attitudes, **transportation planners routinely rely on surveys** or other self-report measures. This data helps shape informational campaigns and other policy interventions to push travel behaviour toward more sustainable modes and away from single-occupancy, gasoline-powered vehicles. However, respondents may hold **implicit attitudes that differ from their expressed answers to surveys because of social desirability bias, self-enhancement, or self-ignorance**. Often, people are inclined to justify and rationalize their behaviour. **Who would admit that driving a car contributes to one's feelings of power or territorial instinct?** People rather keep saying that it's all a matter of time, money and comfort. This mismatch between attitudes measured through surveys and the actual preferences underlying behaviour could have wide ranging impacts on the shape and efficacy of the policy interventions meant to shape people's behaviour. There are significant differences between implicit and explicit measures of social status biases⁷ in the mode choice between car and bus and how this bias may affect travel behaviour (Moody, 2016).

- **Active/passive**

Active mobility has been described as a healthy action and it is the third most frequently used mode of transport for everyday trips, after individual cars and public transportation. It includes all ways of getting around under your own steam (cycling, walking, roller-skating, etc.), also called 'soft mobility'. **Active mobility is on the rise**, especially in downtown areas, and presents multiple advantages: it saves time, money, and reduces the overall environmental impact. On the other hand, passive mobility is mainly associated with motorised mobility.



Figure 14: SEAT Alhambra advertisement. 2016 (Source SEAT website)

In the publicity world, from company campaigns to institutional advertising, the **bicycle appears very often as an added element and not as means of transport per se**. The example of the SEAT advertisement in Figure 14 conveys the message that **bicycles are for kids, cars for adults**. Interestingly, the role

⁷ Social status bias can be understood as to people's association of a mode of transportation with differing levels of success, wealth, or image that is often subconsciously influenced by the cultural context surrounding the travel decision.



of the bicycle presented in publicity, even in campaigns not related to mobility, seems to be a **synonym of better communication between people, fun and good health** (Pedrós-Pérez et al., 2020). A planned approach in these campaigns could contribute to inform, create and reinforce a new culture of active and sustainable mobility and to promote one of the measures that would have a bigger impact on climate change mitigation: 'living car-free' (Wynes and Nicholas, 2017).

- **Technology**

Besides autonomous vehicles, ride hailing, e-scooters and e-bikes; mobility technology also includes: electrification (electric vehicles, charging/batteries); fleet management and connectivity (connectivity, data management, cybersecurity, parking, fleet management); auto commerce (car sharing); transportation logistics (freight, last-mile delivery); and urban air mobility (Sipe, 2019)

E-scooters and e-bikes are thought to be the solution by **micromobility** companies to the '**first-mile last-mile**' problem, as they will enable people to move quickly and easily between their homes or workplaces and a bus or rail station. But this will strongly depend on having safe and segregated bicycle networks and frequent and widely accessible public transport services. Though ride-hailing services might relieve people of the need to own a car, there is evidence to suggest these services are adding to traffic congestion because more of their time on the road involves travelling without any passengers. The **enthusiasm for autonomous vehicles (AV) has cooled** and some now believe we won't see many of the social benefits for decades. AV are envisioned to reduce road fatalities by switching control of safety-critical tasks from humans to machines. Realizing safety benefits on the ground depends on technological advancement as well as the scale and rate of AV adoption, which are in turn **influenced by public perceptions and ethical concerns**. At the individual level, young males report higher perceptions of current AV safety and predict fewer years until AVs are safe enough for them to use. Urban, fully employed individuals with higher incomes and education levels also report fewer years until AVs are safe to use (Moody et al., 2019).

One of the newest entrants in the mobility tech field is known as **mobility as a service (MaaS)**. MaaS could be defined as a platform to make better use of existing infrastructure and transport modes by **linking journey planners, payment systems and a range of mobility services**. This idea seems to be creating **great enthusiasm** among both private entrepreneurs and in the public sector.

Innovation and technological advances are always at the core of marketing campaigns or communication actions associated with mobility. New **potentialities are presented as success factors and net contributors to mobility and progress**. Organisations pursue **brand empowerment** by presenting selected innovation cases, achievements, experimental products, and stories about the impact of their innovation activities. In fact, actors associated with a particular innovation might strategically **inflate expectations or technological promise**



to attract resources and attention (Rufe and Markard, 2010). This over-optimism can lead to a period of hype, during which attention (from media and the public) and expectations peak.

- **Sharing**

Traffic congestion, dominated by single-occupancy vehicles, reflects not only **transportation system inefficiency and negative externalities**, but also a **sociological state of human isolation**. Advances in information and communication technology are enabling the **growth of real-time car-pooling and ride-sharing** to improve system efficiency; where algorithms optimize passenger matching based on efficiency criteria such as maximum number of paired trips, minimum total vehicle-time or vehicle-distance travelled (Zhang et al., 2019).

Though this concept has been nearly put on pause during the Covid-19 pandemic; sharing mobility is quite popular, especially among younger segments of the population and is associated with a **change in consumer behaviour**. In the sharing economy, **ownership is no longer the target: the focus is shifted onto service**. Mobility is much more important than having your own means of transport. Besides, this mobility-on-demand trend is fuelled by the possibilities that come with digitalisation (BMW, 2021).

In theory, this new transportation option could contribute to a reduction of the number of vehicles on the road while increasing accessibility. In addition, this emerging mode could enable a **new paradigm for social interaction through a combination of spontaneous and intense interactions**. The unique shared-trip setting could be used as a venue for productive dialogue between passengers. Social dynamics are at play in shared rides and individuals contribute to the experiences of their fellow passengers. Thus, social aspects could be incorporated into the broader design of mobility sharing systems, through the inclusion preference-based matching, pricing, information dissemination, and social mixing. This would lead to realize the **societal benefits of interactions as a complement to the potential environmental and economic benefits of reduced congestion** (MIT, 2021). However, actors in government, industry and the media usually portray innovations under an economic discourse rather than conveying ideas of social embedding.

- **Privacy**

The EU Charter of Fundamental Rights⁸ establishes a modern and harmonised data protection framework across the EU. It stipulates that EU citizens have the **right to protection of their personal data**. Everyone has the right to the protection of personal data concerning him or her and to the access to data which has been

⁸ Charter of Fundamental Rights of the European Union: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012P/TXT>



collected concerning him or her, and the right to have it rectified. The European Commission put forward its EU Data Protection Reform in January 2012 to make Europe fit for the digital age. More than 90% of Europeans say they want the same data protection rights across the EU – and regardless of where their data is processed. Currently much of this **wealth of information is held by just a few companies and public institutions** that know a lot about us, while we know so little about them. The **regulation is an essential step to avoid data monopolies and misuse and to strengthen citizens' fundamental rights** in the digital age.

One of the **main concerns in mobility sharing applications is the exposure of personal data provided to the system** due to the associated increase in vehicle/infrastructure electronics and communications. Transportation and location data can reveal personal habits, preferences, and behaviours. Riders could not be willing to share their whereabouts or the exact location of the origin and/or destination of their trips. In addition, it is known that privacy pays a price in terms of decreased efficiency of the mobility sharing system: **location privacy-preserving techniques could affect the performance of mobility sharing applications, in terms of both System Efficiency and Quality of Service** (Martelli et al., 2020).

Paradoxically, despite the public preoccupation on the matter, we have experienced since the late 2000s a **boom in the popularity of social networking sites** (Facebook, Twitter, Instagram, etc.). Web 2.0 – also called Social Web - facilitates participatory information sharing and collaboration on the Internet, and through these websites **many people are giving their personal information out on the internet**. Security and privacy issues result from the large amounts of information these sites process. Features that invite users to participate in - messages, invitations, photos, open platform applications and other applications - are often the venues for others to gain access to a user's private information. Cinema is the one place where intrusions into our private sphere are dealt with certain frequency, and almost always in a dystopian way. Movies such as "Gattaca" and the use of genetic data; "Das Leben der Anderen" (The Lives of Others) and totalitarian surveillance (Figure 15); or "Minority Report" and the rights of privacy in a media-dominated world – depict a world where technology and surveillance systems are all-pervasive. This raises some **scepticism as whether the new generations will be aware of the importance of protecting one's privacy** or how to learn it.



Figure 15: "Das Leben der Anderen" original poster. 2006



4.2 Fake news and post-truth

The phenomenon of fake news refers to pieces of information that are wrong, fabricated or misleading. They usually show a total **lack of reliability and manipulate facts with the intention of favouring economic or political agendas**. Sources are missing or incomplete, images are doctored or out of context, names of persons or institutions are false. The goal is to discredit, incite, twist the thrust and create confusion. The forgers of fake news take advantage of the cognitive bias and lacunae of the human mind, to circulate false stories and **amplify emotional reactions and extreme positions**.

Fake news dwells in a wider context: the **erosion of truthfulness in liberal societies**. As the collective faith in a single truth has waned, people are more ready to believe that the latter is context-dependent, so that different worldviews will produce different 'truths' whose relative merits cannot be decided upon. This **cultural development is captured by the term 'post-truth'**, which in turn is related to the **postmodern turn that discredits grand narratives and fixed meanings** (Arias Maldonado 2019). The emphasis on the social construction of meaning, irony, and fragmentation has promoted the belief that reality is now so elusive and our perspectives as individuals and groups so divergent that it is no longer meaningful to speak of, or seek, the truth (D'Ancona, 2017).

Moreover, there is a **reappropriation of the denunciation of the manipulations of mainstream media**: "the old left critique of 'dominant ideology' (and its variants) in the practice of mainstream liberal journalism has been co-opted by the populist movement and its alt-right media cheerleaders as they seek to destabilise long-established norms of truth, objectivity and accuracy in news and in the process replace what they see as exhausted elites of both right and left" (McNair, 2018). So-called **'right-wing postmodernism' use doubts about objectivity and truth to assert that all truth claims are politicized** and thus can be reduced to ideological statements. Now, a fabrication can be recognized as such and thus rejected, but the dividing line between them becomes more tenuous in this new cultural context.

Climate change and sustainability are two of the topics affected by the fake news phenomenon. Repeated lies against regulation of traffic in the cities or the advantages of e-vehicles are spread in social media every day. **Fake news is a real threat to social harmony, cohesion and stability**. The European Union has expressed several times the desire to improve the quality of the information offered to the public, particularly in the world of social networks. The experiences from the first phase of the Covid-19 emergency have doubled the **efforts in the EU to fight disinformation and reinforce resilience of European societies**. The Joint Communication⁹ of March 2020 analyses the immediate response and proposes concrete action that can be quickly set in motion.

⁹ JOINT COMMUNICATION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Tackling COVID-19 disinformation - Getting the facts right. JOIN/2020/8 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020JC0008>



4.3 Innovations

The achievement of sustainable mobility will not be easy, at present **too much emphasis has been placed on the role that improvements in technology** can play in the process of change. But this perspective is too simple, future influences in mobility are not only technological. A full range of elements participate in the ensemble of sustainable mobility. Some of these elements are described individually below, but it is **only through a coherent vision of a sustainable horizon that real progress will be made** to attain both the global objectives (CO₂ reduction and energy efficiency) and the local objectives (accessibility, affordability and quality of life). Arthur (2009) suggested that innovation takes around 40 years and depends on new combinations of elements working together synchronously to create new habits and imaginations. New strategies indicate that innovative thinking on technology will be combined with the potential for new forms of organization and management, so that a more holistic course action to meeting the mobility needs of people can be achieved.

4.3.1 INTERNET AND SOCIAL MEDIA

The relationship between technology and its users must be conceived as 'inextricably cultural and instrumental' (Beckmann, 2001). In this regard, we agree with the idea that technology 'always speaks to a range of function-expressions' (Michael, 2000). The most classical example of this is the car, which does not just perform the practical function of moving from A to B but also, through the localized exercise of power, offers opportunities for the **development and expression of users' self-identities**.

In an era of accelerating technological change, one could argue there is no certainty that faster and more profound change in the future may be accompanied by equally profound social and cultural change. However, it is clear that the **diffusion of information and telecommunication technologies (ICT) has transformed the mobility of passengers and freight and resulted in several economic and social impacts**. A new range of ICT composed of computers, satellite communication, mobile phones, and finally, the internet emerged in the 1980s and contributed to the integration of telecommunication and transportation. With the emergence of an information society, the transactional structures of the economy have changed drastically towards networked organizational forms of individuals, institutions, organizations, and corporations with **more intensive interactions, many of which are associated with new forms of mobility** (Rodrigue, 2020). ICT enables individuals to interact through additional mediums (e.g., email, texting, video conferencing), which may lead to more interactions, but also to changes over how these interactions are conducted. The diffusion of mobile personal computing devices, mainly smartphones, has also enabled individuals to enrich their mobility by enabling them to perform various tasks while in transit or outside a conventional work environment setting.



Thanks to the digital era and the wide diffusion of social media, the figure of the **green influencer has become very popular**. Green influencers are people engaged in promoting sustainable ways of life and raising awareness towards environmental issues, through their digital profiles in Instagram, Facebook, Twitter or personal blogs (Figure 16). They are seen as **role models by their followers who tend to replicate their behaviours and attitudes**.



Figure 16: Greta Thunberg holding a banner with her famous slogan "Skolstrejk för klimatet" (School strike for the climate). 2018

The power of the digital world offers the possibility to reach **bigger audiences with lower resources and better results** compared to the classical advertisement campaigns. New trends in sustainable mobility endorsed by green influencers include e-vehicles, transport sharing and multi-modal mobility.

4.3.2 NUDGING SUSTAINABLE MOBILITY

Professors Thaler and Sunstein (2008) **criticised institutional theories based on the assumption that human beings have only rational behaviour**. According to them, there are many situations where people end up acting against their own interest: by taking both unnecessary risks and too many precautions, letting their decisions be influenced by irrelevant information. The authors applied theories on the 'predictivity' of human behaviour to the regulatory action of institutions proposing a **flexible model of interaction**. Their approach defines the concepts of 'choice architecture' (the organisation of the context in which people make decisions) and 'nudges'¹⁰ (small features designed in the environment of choice making).

¹⁰ A nudge is any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates.



Advances in behavioural science provide a new toolkit of theories, models, and empirical methods for designing transportation programs and evaluating policies. The main purpose of nudging interventions in the transport system is to **promote sustainable travel behaviour**. New methods allow transport planners to better understand user heterogeneity, segment users based on their patterns, and **predict individual travel sequences**.

Despite the importance of these techniques when dealing with behavioural problems that planners encounter when consulting with the public, crafting policy and regulations, and promoting sustainable patterns of behaviour, they have received only **limited attention in the planning and transportation literature**. On the other hand, the almost universal adoption and coverage of smartphones is a priceless framework for generating, implementing, and testing the results of different interventions designed to affect users' travel behaviour by delivering behavioural feedback via activity-tracking applications (Zhao and Baird, 2014).



Figure 17: Still picture from the first video of the "The fun theory" initiative. Volkswagen. 2009 (Source: YouTube)

Pilot projects are being promoted and evaluated around the world while **future directions for research on behavioural interventions** are being vividly discussed. Some of the current topics include clustering analysis to identify riders who may be susceptible to changing their long-term travel patterns, developing new types of integrated fare products, evaluating public-transit network gap bridging via e-sharing or identifying incentives for carpooling.

Some nudge interventions capitalise on the inclination to suffer social influence through the mechanisms of imitation, conformism, social confrontation and contagion. Thus, several **nudging campaigns promoting the use of public transport rely on positive social models to inspire citizens** (SaMBA, 2020).

4.3.3 SOCIAL MARKETING

Social marketing refers to **community-based programs to encourage more socially desirable behaviour** and represents a new approach for dealing with transportation issues. Social marketing is "a process that applies marketing principles and techniques to create, communicate, and deliver value in order to influence target audience behaviours that benefit society (public health, safety, the environment, and communities) as well as the target audience" (Kotler and Rothschild, 2008). It is useful



to achieve **behaviour changes that people support but find difficult to make**, such as actions that increase personal health or benefits neighbours. It identifies the costs of inaction and the benefits of change from users' perspective, and helps people **overcome barriers to desirable change**. Social marketing involves designing the walking, cycling, carpooling (etc.) experience so that it is truly attractive to the target audience and meets its needs. This requires the whole process of analysing the audience and context, and addressing all components of the marketing mix, not just the promotion component or simply an advertising campaign.

Social marketing contains **key elements that are lacking in traditional policy planning**: customer orientation, mutually beneficial exchange, relationship thinking and utilization of behaviour change tools. These elements appear to be crucial for program success, as they account for the behaviour change factors assisting people in making their travel choices. These factors are responsible for **change at the individual level** (individual values and beliefs, perceived behavioural control and social norms), interpersonal level (appropriate information, effective reminders, possibilities to act environmentally, incentives to behave environmentally) and **network level** (qualities of environmental behaviour, peer networks, different user segments) (Chkanikova, 2009).

When barriers exist but also personal motivation, **social marketing can be applied as a systematic approach for researching, designing and promoting travel choices** so that they are attractive, competitive, easy and popular. Such is the case of the promotion of public transport: the private car dominates travel in large metropolitan areas despite the fact that public opinion is generally in favour of the development of public transport. Some successful examples of social marketing in mobility include creating better walking and cycling networks, improving transit services, as well as engaging people to optimize their personal travel decisions. These involved a combination of **education, persuasion and policy interventions** that have changed the way people act.



5 CONCLUSION

We have seen that **culture, particularly mobility culture, changes dramatically over time and space**. The collective meanings and shared beliefs from 75 years ago would probably be barely recognizable to contemporary Europeans, and there is no doubt that the culture of today will seem equally strange to our future fellow citizens in another 75 years. It would be really shocking otherwise. Decades of creating **life realities based on optimized car-traffic flow and car-centred infrastructure** makes it yet difficult to describe how a **future mobility that meets the needs of all people will be**. The car-centred optimization for efficiency and speed is outdated, more **collective approaches emerge** finding compromises and new opportunities and challenges. By shifting the focus, we all can feel and experience a **new way of talking about mobility compared with the dominant narratives from the past**.

*"Que vers le sol natal mon corps soit ramené
dans un sleeping du Paris-Méditerranée,
terminus en gare de Sète".*

*"Let my corpse be taken back to my native soil
in a sleeping car of the Paris-Méditerranée train,
terminus at Sète station".*

**Supplique pour être enterré à la plage de Sète
(Georges Brassens)**

In addition to this **ongoing cultural change**, it is worth mentioning the dramatic cultural transformation that we have been living in recent decades in Europe and throughout the world with the rise of the **Internet and global cultural flows** associated with it. The **future implications of the role of technology and new forms of connectivity have only started to insinuate**. Do powerful people and classes still have control over the production of culture? Does Gramsci's notion of hegemony accurately characterises the cultural environment of the 21st century? Are the conditions of cultural production changing? Who controls the production of ideas in society, and to what ends?

Transport is itself a form of communication or mediation in every sense of the word. It is an organizer, regulator and generator of things, places, flows and people, a maker of journeys and a producer of texts and images, from timetables to travel stories and from engineering drawings to photographs. In particular, transport's centrality to the shaping of the world over centuries gives it particular importance in understanding the historical constitution, current narratives and future possibilities of (post)modern societies. **Transport and mobility are crucial to sketch a cultural history of modernity**; they interact with, constitute and are constituted by social power in its various forms.

The most visible **effect of COVID-19 - physical distancing - has a significant impact on behaviours and preferences**, but it is too early to tell whether these trends will translate into **permanent traits of the European mobility culture**. Many experts believe that many changes in the modal mix are temporary and that shared-mobility solutions, including public transit, will rebound to capture increased market and communication share.



A precise **planning of the communication strategy for sustainable, aware mobility is a critical factor for achieving a quality result in economic and efficiency terms.** But more importantly, a **political and ethical responsibility towards the future generations,** the ones that will deal with the consequences of the present we are immersed in. Communicating consists of wondering 'why' about things and sharing clearly the 'reasons why' without forgetting that mobility is best expressed in our thought and in our ability to imagine.

Disclaimer: The sole responsibility for the content of this document lies with the authors. It does not necessarily reflect the opinion of the European Union. The European Commission is not responsible for any use that may be made of the information contained therein.



6 REFERENCES

- Adorno, Theodor W. & Horkheimer, Max (1947): *Dialektik der Aufklärung. Philosophische Fragmente*. Fischer
- Arias Maldonado, Manuel (2019): *Understanding Fake News: Technology, Affects, and the Politics of the Untruth*. *Historia y comunicación social*. Ediciones Complutense UCM.
- Arthur, W.B. (2009): *The Nature of Technology: What It Is and How It Evolves*. Allen Lane, London.
- Beckmann, J. (2001): *Automobility — a social problem and theoretical concept*, *Environment and Planning D: Society and Space* vol.19 (2001)
- Berezin, Mabel (2015): *Culture, Sociology of*. In: *International Encyclopedia of the Social & Behavioral Sciences*: Elsevier, S. 617–621. Bréchon, P., Gonthier F. (2017, Eds.). *European Values. Trends and Divides Over Thirty Years*. *European Values Studies*, Volume: 17, Brill: Leiden
- BMW (2021): *Urban mobility: Discover 5 trends of the future*. <https://www.bmw.com/en/innovation/5-trends-of-urban-mobility.html>. Accessed 31 July 2021.
- Briggs, Asa & Burke, Peter (2010): *Social History of the Media: From Gutenberg to the Internet*. Polity Press. p. 1.
- Castells, Manuel (2009): *Comunicación y Poder*. Alianza Editorial. Madrid.
- Chkanikova, Olga (2009): *The application of social marketing in promoting sustainable transportation*. Thesis for the fulfilment of the Master of Science in Environmental Sciences, Policy & Management. Lund University. <https://lup.lub.lu.se/luur/download?func=downloadFile&recordId=1511095&fileId=1511096>. Accessed 31 July 2021.
- Civitas project (2020): *Policy note. Smart choices for cities. Gender equality and mobility: mind the gap!*. https://civitas.eu/sites/default/files/civ_pol-an2_m_web.pdf. Accessed 31 July 2021.
- D’Ancona, M. (2017): *Post-Truth: The New War on Truth and How to Fight Back*. London: Ebury Press.
- Eagleton, T. (2000). *The idea of culture*.
- Eco, Umberto (1963): *Fenomenologia di Mike Bongiorno*. *Diario minimo*. Mondadori.
- European Commission (2007). *Special Eurobarometer 278. European Cultural Values*.



- Gangestad, S. W., Haselton, M. G., & Buss, D. M. (2006). Evolutionary foundations of cultural variation: Evoked culture and mate preferences. *Psychological Inquiry*, 17(2), 75-95.
- Gans, Herbert J. (1974): *Popular Culture and High Culture: An Analysis and Evaluation of Taste*. Basic Books.
- Gelmanova, Z.S., Zhabalova, G.G., Sivyakova, G.A., Lelikova, O.N., Onishchenko, O.N., Smailova, A.A., Kamarova, S.N. (2018). Electric cars. Advantages and disadvantages. *Journal of Physics: Conference Series*, Volume 1015, Issue 5
- Hofstede, G. (1980). *Culture's Consequences: Intentional Differences in Work-related Values*, Beverly Hills, CA: Sage.
- Inglehart, R. (1977). *The silent revolution: Changing values and political styles among Western publics*. Princeton, NJ: Princeton University Press.
- Inglehart, R. (1997). *Modernization and Postmodernization*, Princeton: Princeton University Press.
- Keim, Martin and Cerny, Philipp (2021) *European Mobility Atlas. Facts and Figures about Transport and Mobility in Europe 2021*. Heinrich-Böll-Stiftung European Union. Brussels, Belgium.
- Klaas, Katharina (2021): *Mobilität von Frauen für Frauen: Warum eine ökologische Verkehrswende auch feministisch sein muss*. Publications Office of the European Union, 10.2832/93598, <https://bit.ly/3eztdOb>.
- Kleebinder, Hans-Peter (2018). *Frankenpost interview*. https://kleebinder.net/wp-content/uploads/2018/09/logos_nordb_kurier_frankenpost_final-Kopie.pdf. Accessed 31 July 2021.
- Kotler, P., Lee, N. & Rothschild, M. in Kotler, P. & Lee, N.R. (2008). *Social marketing: Influencing behaviors for good*. Sage Publications
- Manza, J., Arum, R. and Haney, L. (2017): *The Sociology Project 2.5: Introducing the Sociological Imagination*. Dept, N.Y.U.S. Pearson Education.
- Martelli F., Renda M. Elena, Jinhua Zhao (2020): *The Price of Privacy Control in Mobility Sharing*. *Journal of Urban Technology*. MIT.
- Marx, Karl and Engels, Friedrich (1845-1972): *The German Ideology*. New York. International Publishers.
- McNair, Brian (2018). *Fake News: Falsehood, Fabrication and Fantasy in Journalism*. London: Routledge.
- McQuail, Denis (2010): *McQuail's Mass Communication Theory*. London: Sage Publications.



Michael, M. (2000): Reconnecting Culture, Technology and Nature: From Society to Heterogeneity. London and New York. Routledge

MIT Urban Mobility Lab (2021): Social Mobility Sharing. JTL. <https://mobility.mit.edu/sharing>. Accessed 31 July 2021.

Mobilissimus project (2016): The role of communication in mobility. <https://mobilissimus.hu/en/news/role-communication-mobility>. Accessed 31 July 2021.

Moody, Joana (2016): Implicit and Explicit Measures of Social Status Bias in Mode Choice. Massachusetts Institute of Technology.

Moody, J., Bailey, N., Zhao, J. (2019): Public Perceptions of Autonomous Vehicle Safety: An International Comparison. Safety Science.

Paccagnella, L (2010): Sociologia della Comunicazione, Bologna, Il Mulino, p. 96.

Pedrós-Pérez, Gerardo; Martínez Jiménez, Pilar; Aparicio Martínez, Pilar (2020): La imagen de la bicicleta en la comunicación publicitaria: movilidad sostenible y cambio climático. Universidad de Córdoba. Habitat y Sociedad. ISSN-e 2173-125X. Nº. 13. pp. 125-149.

Poepsel, Mark (2018): Media, Society, Culture and You. Published by Rebus Community.

Pojani, Elona & Van Acker, Veronique & Pojani, Dorina. (2018). Cars as a status symbol: Youth attitudes toward sustainable transport in a post-socialist city. Transportation Research Part F: Traffic Psychology and Behaviour. 58. 10.1016/j.trf.2018.06.003.

Ramboll Foundation (2021): Gender and Smart Mobility Green paper March. https://ramboll.com/-/media/files/rgr/documents/markets/transport/g/gender-and-mobility_report.pdf. Accessed 31 July 2021.

Reuters (2021): Factbox: Bezos, Branson and Musk: Who is winning the space tourism race? <https://www.reuters.com/technology/bezos-branson-musk-who-is-winning-space-tourism-race-2021-07-06/>. Accessed 31 July 2021.

Rodrigue, Jean-Paul (2020): The Geography of Transport Systems. New York. Routledge, 456 pages. ISBN 978-0-367-36463-2.

Rosengren, Karl Erik (1981): Advances in Content Analysis. Volume 9 di SAGE Series in Communication Research. SAGE Publications.

Ruef, A. and Markard, J. (2010): What happens after a hype? How changing expectations affected innovation activities in the case of stationary fuel cells. Technol. Anal. Strat. Manag., 22. pp. 317-338.

Salazar, Noel B. and Jayaram, Kiran (2016): Keywords of Mobility: Critical Engagements. Berghahn Books. New York. 188 pp.



Salmon, John Hearsey McMillan; Herlihy, David; Sørensen, Marie-Louise Stig; Parker, N. Geoffrey; Frassetto, Michael; Herrin, Judith Eleanor; Champion, Timothy C.; Peters, Edward; Mayne, Richard J.; Weinstein, Donald; Aubin, Hermann; Treasure, Geoffrey; Russell, Richards; Stearns, Peter N.; and Barzun, Jacques (2020). "History of Europe". Encyclopedia Britannica. <https://www.britannica.com/topic/history-of-Europe>. Accessed 31 July 2021.

Salvadó Corretger, Glória (2012): Television as Utopia: Trends in Television Fiction over the Past 30 Years, through the Input Archive. *Critical Studies in Television*, 5(2), 86–90. <https://doi.org/10.7227/CST.5.2.12>

SaMBA project (2020): The nudge approach in public transport. https://www.alpine-space.eu/projects/samba/pdfs/2020_nudge_sustainable-mobility-best-practices.pdf. Accessed 31 July 2021.

Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1–65). London, UK: Academic Press

Sezgin, Erkan & Yolal, Medet. (2012). Golden Age of Mass Tourism: Its History and Development. 10.5772/37283.

Sheller, Mimi & Urry, John. (2000). The City and the Car. *International Journal of Urban and Regional Research*. 24. 737 - 757. 10.1111/1468-2427.00276.

Singhal, A., Cody, M., Rogers, E., & Sabido, M. (eds.) (2004). *Entertainment-education and social change: History, research, and practice*. Mahwah, NJ: Lawrence Erlbaum.

Sipe, Neil G (2019). Billions are pouring into mobility technology – will the transport revolution live up to the hype? The conversation. <https://theconversation.com/billions-are-pouring-into-mobility-technology-will-the-transport-revolution-live-up-to-the-hype-131154>. Accessed 31 July 2021.

Thaler, Richard H., and Cass R. Sunstein (2008): *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven, Conn.: Yale University Press, 2008.

Thomas, PN. (2017) Social inequalities and the media. *European Journal of Communication*. 32(6):614-616.

Triandis, H. C. (1995). *Individualism and Collectivism*, Boulder, CO: Westview Press.

UIA (2021): Urban Innovative Actions project. <https://www.uia-initiative.eu/en>. Accessed 31 July 2021.

United Nations, The (1948). *Universal Declaration of Human Rights*.

URBACT Knowledge Hub (2019). *Gender Equal Cities*. <https://urbact.eu/gender-equal-cities>. Accessed 31 July 2021.



Westley, B.H., MacLean M.S. (1957): A Conceptual Model for Communications Research. *Journalism Quarterly*. 1957;34(1):31-38. doi:10.1177/107769905703400103.

Wynes, Seth and Nicholas, Kimberly A. (2017). The climate mitigation gap: education and government recommendations miss the most effective individual actions. *Environmental Research Letters*, 12(7), 074024. DOI: 10.1088/1748-9326/aa7541.

Yamu, Claudia; Tan, Wendy; Hidayati, Isti; Garau, Chiara (2020) Understanding and overcoming mobility inequality in cities. Call for papers.

Zavatta, Alberto (2019): Communicating Mobility. Performance and ability to adapt, participatory democracy and sustainability. <https://www.flowsmag.com/2019/03/08/comunicare-la-mobilita/>. Accessed 31 July 2021.

Zhang, H. and J. Zhao, J. (2019): Mobility Sharing as a Preference Matching Problem. *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, no. 7, pp. 2584-2592. doi: 10.1109/TITS.2018.2868366.

Zhao, J. and Baird, T. (2014): "Nudging" Active Travel: A Framework For Behavioral Interventions Using Mobile Technology. Conference Paper. Transportation Research Board Washington, D.C.

