MODULE 1.
SOCIOLOGICAL FACTORS

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Co-funded by the Erasmus+ Programme of the European Union

Module 1. Sociological factors

1.1 Activity 1. Theoretical input. Explaining the sociocultural factors behind fake news regarding Climate Change.

Duration: 15 minutes

Learning outcomes: To introduce participants into the societal reasons as to why fake news regarding climate change spread and are effective in some contexts.

Materials/resources needed. Since this is conceived as a theoretical input activity, the material needed are notebooks and pens. The facilitator could use a PPT also. The content should reflect the following bullet points and facts:

Society plays a fundamental role in the spread of fake news. The social networks serve as the interlink of this fake news, and the channels to which they are spread. However, individuals are the latest recipients. Individuals form social networks and expand their influence over other individuals. Therefore, some individual factors are key when acknowledging spreading fake news:

- Confirmation bias. The confirmation bias is an intrinsic and subconscious bias that every human being has. It consist on (subconsciously) choosing or preferring to consume information that has coherence with an already set of beliefs. This can be exemplified to the lowest level. Individuals tend to give more credibility to that information that reinforce what they consider is the truth or at least, not something to be dismissed. The confirmation bias then easily discharges any relevant piece of information or fact that contradicts its beliefs, and grabs any single useful concept that adds value to its ideas and values. Moreover, if the contradicting fact is a minority in terms of quantity, the individual guided by the confirmation bias would make reference to the quantity to underestimate its legitimacy (1 vs a lot, therefore, not legitimate) while in the opposite case (a lot of contrary facts and vs confirmed fact), the individual would point out the relevance and strength of the argument to enhance its credibility (a lot of weak arguments counter the strength of the one single fact)

- Homophily and echo chambers. Homophily is the ubiquitous tendency for humans to be linked to others who share their traits, observed in almost all (offline and online) social networks. This behaviour is encouraged by the construction of many social media platforms, which promote homophily by suggesting new connections based on matching of user profiles or mutual connections, for instance, Facebook "friends" and Twitter "followers." This may lead to homogeneous clusters of like-minded users, or 'echo chambers', where information spreads around the group (Treen et. al, 2020) engagement with online content correlates with the number of friends in their local.
  Both confirmation bias and homophily strongly affect the denial narratives, determining the degree of importance for some individuals, and therefore, contributing to its spread.

- Denials. A strong fact that influences the spread of fake news is denial. Denial represents an effective tool for individuals to oppose to certain arguments. Regarding climate change, denial can take several forms:

  a) *Trend denial*. Trend denial consist on believing and supporting the theory that no significant warming is taking place. Supporters of this argument claim that there are strong incoherences from the global warming theory and the daily climate they perceive every day. Humans are very sensitive to external stimulus, and although it may be easier to understand global warming, its causes and consequences etc…, not perceiving a radical change in the weather may weaken the whole argument, as individuals may consider that it is distorted and lacks a rationale between what they are being told and

what they see. Therefore, it may generate a confirmation bias that acts when put it in front of a fake new, especially those regarding global warming.

b) *Attribution denial***.** Climate change seen as something natural and that is not caused by humans is one of the main arguments for denying climate change, and this is because it does not deny fully climate change, it actually recognizes that exists. However, they attribute it to a natural process of the Earth, trusting that the human action does have little, or none influence at all. Scholars adventure to believe that having placed strong emphasis on the human action, sometimes exacerbated by climate activists, resulted on narratives defending that the human being does not have any responsibilities in climate change. Rejecting guilt and avoiding direct charges can be the reason behind these narratives.

c) *Impact denial*: Similarly to the attribution denial, the Impact denial does not deny climate change and accepts that is a nowadays issue. However, they recognize the importance of human action in producing CO2 emissions and contributing to global warming. Yet, this narrative denies that there is a negative impact on humans or the environment. Many times, is linked with the trend denial attributing climate change to a natural process, that the Earth has already experienced before and that self-regulates. The attitude behind these arguments is rather passive, pointing out at those natural phenomena that existed before and can be related to the current issues.

d) *Consensus denial.* This denial is based on pointing out those dissonant voices among the scientific community that claim that climate change does not exist nor it's a problem. This denial claims that there is no consensus among climate change, highlighting those discrepancies between the scientific community. Balancing out the different opinions, giving the same importance to the less refuted or considered is a common trait of this denial. Often, the self-characteristic that these scientific discrepant versions are isolated, are presented as a proof that the international community choses to silence them.

- Activism and Correction. An important aspect as to why fake news are usually spread often is the interrelation between activist and other users in social media. As research shows (Freiling & Matthes, 2023), there are two main factors determining why individuals correct others (understood as the action of dismantle fake narratives with arguments supported by factual knowledge and data). These are age and how relevant the issue is perceived by individuals. Young people tend to be more willing to correct than older people, and people tend to correct when the issue is highly relevant to them. These two characteristics fit with the profile of climate activist, normally young people, very active in social media and concern about environmental problems. The higher the political environmental activism is, the more individuals correct perceived climate change misinformation. This generates a vicious circle regarding emotions, due to the fact that the more they perceive misinformation, the angrier they get over time, falling into non rational or balanced arguments, contributing to polarization. This polarization channels and makes it easier for fake news to spread, as there is a lack of a 'calm voice' able to explain why that news are incorrect.

- Polarization. As already mentioned, polarization has a strong influence in the spread of fake news in society. Polarization increases the narrative of 'Us vs Them', enhancing confirmation biases, polluting counterarguments with narratives aimed to harm, rather than to debate, other opinions. This environment is the perfect one for fake news to spread, as they would be easily taken as important, dismissing any scrutiny that would disallow them for becoming relevant in the public sphere.

Estimated number of participants. No estimated number of participants

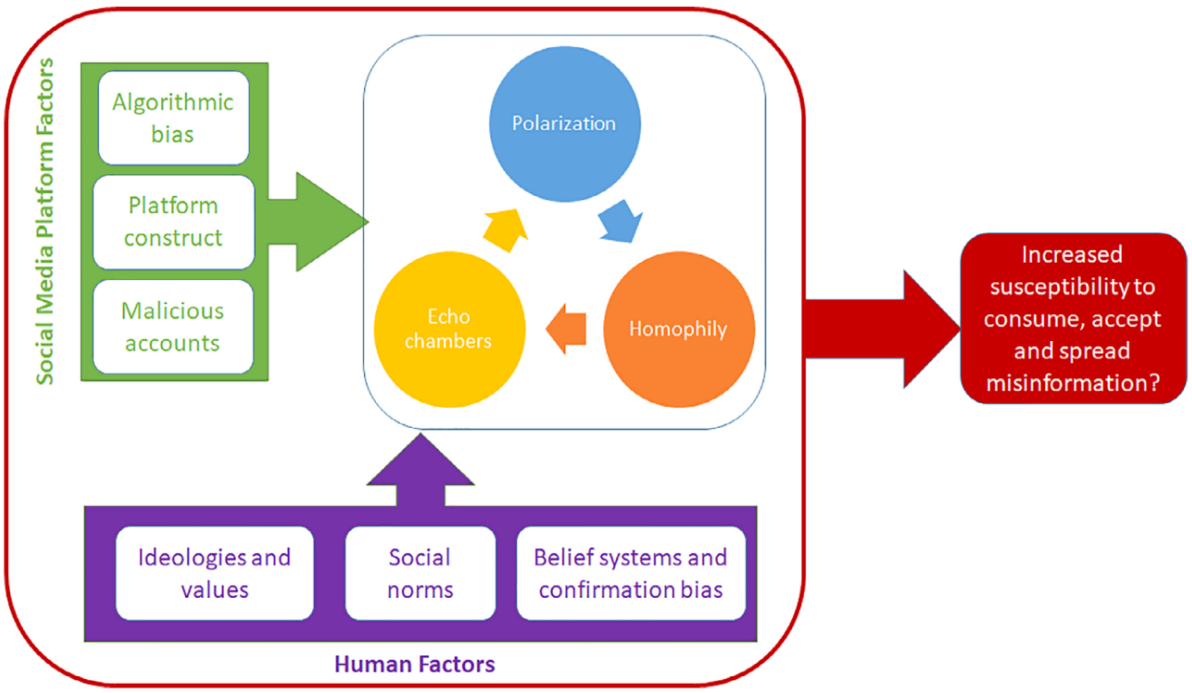
Participant instructions. Listen carefully to the trainer's input and take notes if necessary.

Possible alterations. This activity is lecture-type, therefore, depends on the facilitator/trainer to implement it the most suited way for their participants. The information described above shall be transmitted in accordance with the participant's knowledge and background. For that reason, the facilitator may adapt the content, to make it more relevant depending on its national context or target audience. The way of presenting it can be done through PPT or simple lecture. It may include external information as well, but it is recommended to read in advance the resources listed in the Background reading section.

Debrief. Ask participants if they have any questions, ¿Have you observed any of these sociological factors happening in your environment/society? ¿how would you react if you see there is a general spread of fake news? ¿Have you acted on confirmation bias before?

Background reading/external resources.

- Kathie M. Treen, Hywel T.P. Wiliams, Saffron J. O'Neill (2020), *Online misinformation about climate change*, Wiley Periodicals LLC
- Isabelle Freiling, Jorg Matthes (2023), *Correcting climate change misinformation on social media: Reciprocal relationships between correcting others, anger and environmental activism*, Computer in Human Behaviour
- Aimiei Yang (2024), *What makes a climate change denier popular? Exploring Networked Social Influence in a Disinformation spreader group*, University of Southern California



1.2 Activity 2. Guess who – identifying relevant actors in spreading fake news

Duration: 20-30 min.

Learning outcomes/Key messages: To understand the complex interplay between interested actors in society, and how they influence public opinion when spreading fake narratives. This activity is set up as a role-play activity, in which participants have to represent different actors that have an influence in public opinion. Before explaining the activity, give a brief oversight of each role and their importance:

- Scientist. The scientific community has a very important role in determining public opinion. They are the authorised voices which, with empirical research, demonstrate climate change risks and consequences. For that reason, fake news usually manipulates information emerging from scientific research, so to claim more legitimacy. Moreover, they may highlight those academic voices that reject climate change so to support their fake narratives. By basing the disinformation in scientific declarations/research, fake news may be presented as true fact.
- Politician. Politicians also have authority over public opinion. In democratic countries they are delegated with the responsibility to look after public wealth and state security. However, they are individuals who may have also political interests, which may not be aligned with true facts. Sometimes, political interests may enhance the spread of fake news, in order to gain bigger representative power.
- Coal Industry and automotive industry. These are two of the biggest and most profit industries of the world. Yet, environmental policies are usually not in line with their industrial practices, and they can reduce their benefits. For that reason and in some contexts, the coal and automotive industry may be interesting in spreading fake news, delegitimizing environmental policies in other to regain economic benefits.
- Media. Traditional media has had a lot of influence in public opinion and society in general. They are the main channel for spreading news in general, including fake news. Journalists and general media personnel are usually interested in combating fake news. However, the expansion of social media in public life, has made more difficult to control them, and many times, the media itself may be interested in spreading certain fake news through digital tools.

Materials/ Resources needed. 1. Copies of Annex 1 (every 3 persons), a dice, pens and paper

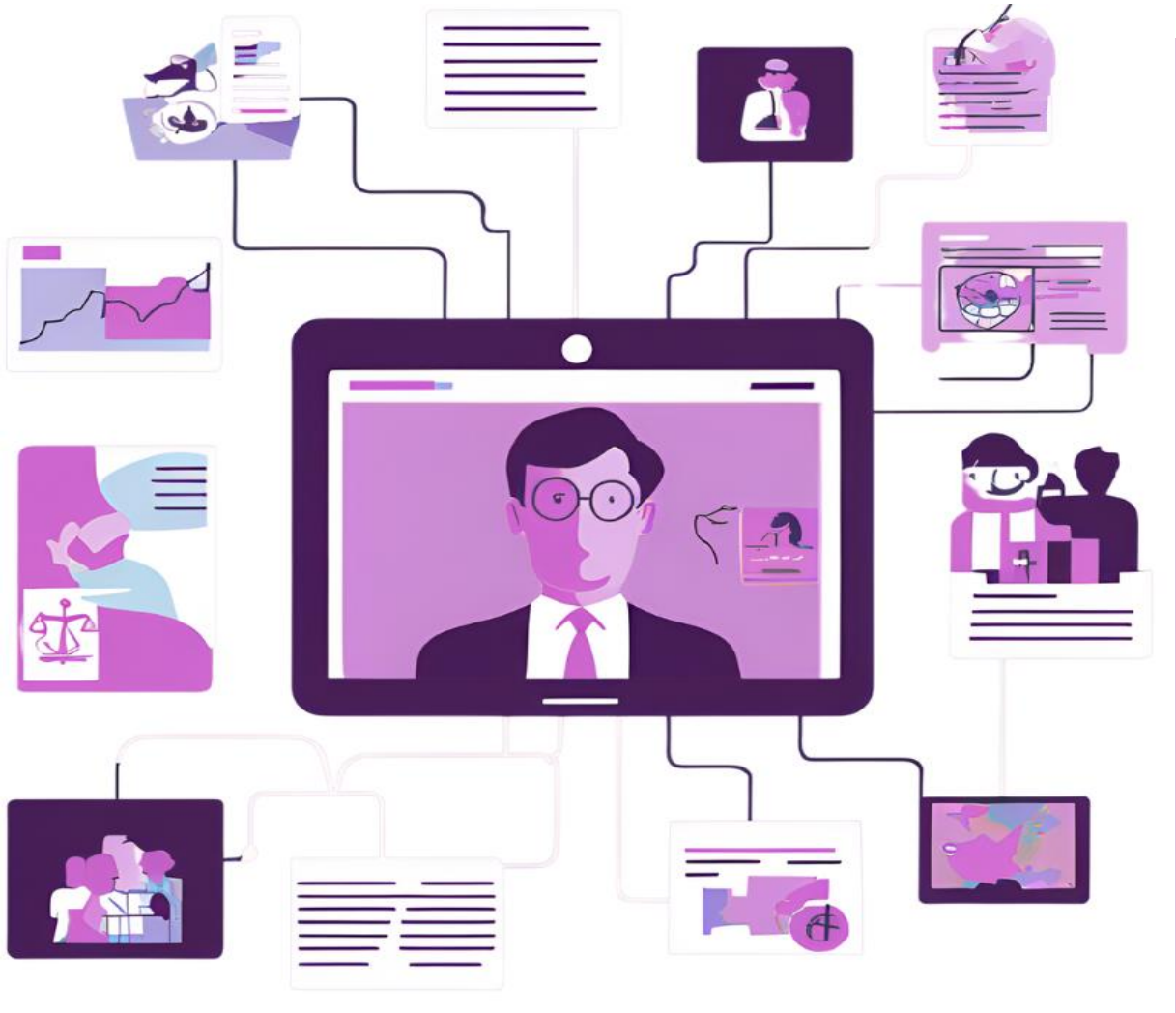
Estimated number of participants: not more than 15 people.

Participant instructions: Divide the group into small groups of 3 people. Tell them to roll the dice. Each number represents an option from the Annex 1; therefore they have to roll the dice 3 times in total – one for choosing a character, one for choosing a place and another one for choosing an object-. If the number is 6, they have to roll it again. This process is done internally, within the small groups, and is kept in secret. The rest of small groups cannot know what options the other groups have been assigned with.
Once they have the 3 options ready, each group has 15 minutes to develop a fake new, using the options given by the dice. Therefore, they will need to impersonate the interests of their character, and frame a fake narrative that has to be thought to be presented in the place given – by taking into account the language, target groups, use of images…- and focused on the object given.
After, each group presents it to the rest. After each presentation, the rests of participants have to guess who which character is each group impersonating and what interests is pursuing when spreading this narrative.

Possible alterations: If the group is sufficiently small (around 8 participants in total), consider dividing it into just 2 teams. The facilitator can adapt the voting system (by individuals or by group).

Debrief: Did you have problems in recognizing who is behind the fake news? What were them? Can you think about other interests they may have? How can the fake news affect your general behaviour?

How did you feel when listening to other groups?

Background reading/external resources:

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