

Youth Climate Information Channels in Europe

Evidence from CLIMAware respondents aged 18–34

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Abstract

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This research report examines how climate-related information circulates among young adults aged 18–34 in Europe and which information channels appear most useful for promoting reliable climate knowledge. The empirical basis is the 2026 CLIMAware survey, a multilingual cross-national online survey implemented in Greece, Portugal, Spain, Finland and Ukraine with an additional European layer. The analysis presented here focuses on respondents aged 18–34 ($n = 279$), representing 41.7% of the 669 survey records, and combines descriptive evidence on channel use, trust, misinformation verification and encounters with AI-generated climate content. Television was the leading reported climate-information channel (52.5%), followed by Instagram (45.4%) and newspapers or magazines (42.3%). Scientists and research institutions emerged as the most trusted sources, with 72.9% of respondents reporting high levels of trust, whereas trust in AI chatbots and influencers was considerably lower. Verification behaviour was common: 37.2% reported checking an original source and 34.7% cross-checking information, whereas only 3.9% reported sharing without checking. AI-generated climate content creates a further literacy challenge: 43.6% reported fake extreme-weather images and only 21.4% reported high confidence in recognising synthetic climate content. The findings support a mixed-channel communication strategy that combines established journalism with platform-specific digital communication, makes scientific sourcing visible, teaches practical verification, and integrates AI literacy. Because participation was voluntary and based on convenience and partner-network recruitment, the results describe the CLIMAware respondents and should not be generalised to all European youth.

Keywords: climate communication, media literacy, climate misinformation, young adults, social media, artificial intelligence, CLIMAware.

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1 Introduction

Climate communication now takes place in a fragmented information environment in which traditional journalism, social platforms, search engines, interpersonal networks and generative AI all compete for attention. Social media have become central to climate-change communication, expanding access and participation while also contributing to fragmentation, ideological bias and misinformation (Schäfer & Metag 2026). Research across major social-media platforms has also found relatively high engagement with unreliable climate-information sources, highlighting the continuing challenge of climate misinformation online (Storani et al. 2025). The CLIMAAware project was established to address climate-change misinformation and disinformation by strengthening media literacy, critical thinking and the capacity of citizens and professionals to identify misleading content (CLIMAAware 2026). Its 2026 survey provides a cross-national evidence base covering climate beliefs, misleading techniques, information channels, trust and AI-generated content (CLIMAAware 2026).

The present study narrows that broader evidence base to young adults aged 18–34. This age group is especially relevant because younger respondents combine intensive digital-media use with continued exposure to traditional channels. The age-focused analysis shows that respondents aged 18–34 ($n = 279$) account for 41.7% of the 669 survey records and are concentrated in the five CLIMAAware partner countries: Greece, Portugal, Spain, Finland and Ukraine (CLIMAAware Survey 2026). The purpose is not to estimate the behaviour of all European young people, but to describe the communication patterns observed among the participating respondents and translate them into practical communication recommendations.

The central research question is: How does climate-related information circulate among young people aged 18–34 in Europe, and which channels are most effective in promoting reliable climate knowledge?

Four analytical themes operationalise this question: (1) the channels through which young adults encounter climate information, (2) the credibility they assign to different sources, (3) their exposure to misinformation and verification behaviour, and (4) their encounters with AI-generated climate content and their trust in chatbots. Together, these themes connect access to information with the more important question of whether information can be evaluated critically.

2 Theoretical and project background

2.1 Climate misinformation and media literacy

CLIMAAware structures climate misinformation through a three-layer taxonomy. The content layer adapts the CARDS framework, which organises contrarian climate claims into five broad families: “It’s not happening”, “It’s not us”, “It’s not bad”, “Solutions won’t work” and “Experts are unreliable” (Coan et al. 2021). The technique layer draws on the FLICC taxonomy of fake experts, logical fallacies, impossible expectations, cherry-picking and conspiracy theories (Cook, Lewandowsky & Ecker 2017). The channel layer then examines where people encounter information, including traditional media, social platforms, search engines and AI systems (CLIMAAware 2026). This structure is useful because misinformation is not only a matter of false content; it also concerns persuasive techniques and the media environments in which claims circulate.

The CLIMAAware survey report indicates that outright denial was uncommon in the full sample, while more contemporary forms of delay and distrust received greater support (CLIMAAware 2026). Examples include claims that impacts mainly concern other people or future generations, that renewable energy is unreliable, and that scientific agreement is exaggerated. This shift matters for media literacy: a communication strategy focused only on correcting old-style denial may miss the narratives that currently shape uncertainty about solutions and expertise.

The technique-recognition component of CLIMAAware also demonstrates why media literacy must go beyond factual knowledge (CLIMAAware 2026). Respondents generally rejected flawed arguments that contradicted climate science, but a flawed argument supporting a pro-climate conclusion was rated as reliable by many. The implication is that critical evaluation should be applied consistently, including to claims that confirm one’s existing position. Technique-based literacy therefore complements factual climate education, consistent with research showing that exposing misleading argumentation techniques can reduce their influence (Cook, Lewandowsky & Ecker 2017).

2.2 Information channels and source credibility

Climate information is encountered through overlapping channel repertoires rather than through one dominant medium. The full CLIMAAware sample showed strong reach for both traditional media and social platforms, and younger respondents were described as particularly omnivorous: social-platform exposure was high, but traditional-channel exposure also remained strong (CLIMAAware 2026). Research likewise shows that social media have become central to climate-change communication while operating alongside a broader media environ-

ment (Schäfer & Metag 2026). This challenges the assumption that youth climate communication should move entirely away from established media. Instead, channel diversity suggests a portfolio approach in which credible information is adapted to the strengths of different media.

Source credibility is equally important. A message may be visible without being trusted, and trust varies sharply across source types. In the age-focused analysis, scientists and research institutions were the strongest credibility signal, while influencers and AI chatbots occupied much weaker positions. This indicates that digital reach should not be confused with authority. Effective climate communication can use social and search channels for distribution while keeping scientific institutions and transparent evidence as the visible source of claims.

2.3 Artificial intelligence and synthetic climate content

Generative AI has added a new layer to the climate-information environment. Synthetic images, deepfake audio and video, AI-written articles and chatbot answers can be produced quickly and can appear credible. Research on deepfakes shows that synthetic media create new challenges for public recognition and evaluation of manipulated content (Sippy et al. 2024). CLIMAAware therefore treats AI-mediated content as a distinct measured dimension. In the full survey, a majority reported at least one problematic or suspected AI-content encounter, with fabricated extreme-weather imagery the most common form (CLIMAAware 2026). The age-focused results show the same practical challenge: exposure is substantially higher than strong confidence in recognising synthetic content (CLIMAAware Survey 2026).

AI chatbots also function as information tools. In the age-focused analysis, 24.7% reported using a chatbot for climate questions (CLIMAAware Survey 2026). Among those users, trust was more often moderate than very high, suggesting that chatbots are supplementary information sources rather than universally accepted authorities. The educational priority is therefore not to treat AI as inherently reliable or unreliable, but to teach users to verify chatbot claims against scientific and institutional evidence.

3 Research design and methodology

3.1 Research question and scope

This study is a descriptive secondary analysis of the CLIMAware 2026 survey with an explicit focus on respondents aged 18–34. The supplied age-focused presentation defines all headline conclusions for this group unless otherwise stated. The study asks how climate information circulates within this respondent group and which channel and trust patterns are most useful for designing reliable communication.

3.2 CLIMAware survey design

The original CLIMAware survey was fielded online between late May and early July 2026 in Greece, Portugal, Spain, Finland and Ukraine, with an additional cross-border European layer (CLIMAware 2026). The questionnaire contained 23 questions and was available in six languages: English, Finnish, Greek, Portuguese, Spanish and Ukrainian. It combined quantitative closed items with an optional qualitative open response. The instrument measured climate beliefs, recognition of misleading argumentation, channel exposure, AI-content encounters, climate concern, trust, self-rated media and digital literacy, verification behaviour and demographics.

The conceptual design emphasised scientific credibility, operational feasibility, cross-country comparability and continuity with later CLIMAware work packages. The questionnaire was designed for completion in approximately six to seven minutes. National partners adapted the master instrument for linguistic and cultural equivalence rather than relying only on literal translation.

3.3 Sample and analytical focus

The original survey received 669 responses, with 652 valid responses after quality checks in the CLIMAware deliverable (CLIMAware 2026). The supplied age-focused analytical presentation uses 669 total survey records as its starting dataset. Respondents aged 18–34 form the primary analytical group ($n = 279$), representing 41.7% of those records. Portugal, Spain, Greece, Finland and Ukraine account for 97.7% of this age-focused group. Participation was voluntary and recruitment relied on partner networks, social media and institutional dissemination.

This is a non-probability convenience sample. The CLIMAware methodology explicitly notes over-representation of tertiary-educated, urban and climate-attentive respondents in the full

valid sample and does not apply post-stratification weights. The present research report therefore uses descriptive language: percentages refer to the respondents analysed, not to the population of European youth.

3.4 Variables and analysis

The analysis is organised around four groups of indicators. Channel indicators identify where respondents encountered climate information. Trust indicators describe the credibility assigned to scientists, environmental NGOs, public institutions, mainstream media, AI chatbots and influencers. Verification indicators describe difficulty distinguishing true and false information and actions such as checking an original source, cross-checking and sharing without verification. AI indicators cover encounters with synthetic climate content, recognition confidence, chatbot use and trust in chatbot answers.

The supplied age-focused analysis reports percentages for the 18–34 group. These descriptive statistics are reproduced and interpreted in the Results chapter. No causal inference is attempted. Comparisons with Eurobarometer and the European Parliament Youth Survey are used only as contextual benchmarks because their sampling frames, question wording and topics differ from CLIMAware.

3.5 Ethics, data quality and limitations

The parent CLIMAware study incorporated data-quality screening. In the full survey, incomplete submissions and a small number of internally contradictory straight-lined responses were excluded, producing 652 valid cases. No duplicate submissions were detected. The deliverable also documents minor harmonisation of age-band labels across national versions. For the present secondary analysis, the key limitation is that the age-focused presentation is based on a convenience sample and self-reported behaviour.

- The sample is not statistically representative of all European young adults.
- Five partner countries dominate the geographic distribution.
- The analytical definition of youth is 18–34.
- Channel use, trust and verification are self-reported rather than directly observed.
- The cross-sectional design describes associations and patterns but cannot establish causality.
- Eurobarometer and European Parliament comparisons are contextual rather than statistically equivalent.

4 Results

4.1 Climate concern and information exposure

Climate change was highly salient among the respondents aged 18–34. In the supplied analysis, 85.1% were at least moderately concerned and 62.1% were very or extremely concerned. In addition, 80.7% reported climate-information exposure weekly or more often. These figures indicate that the communication problem is not simply a lack of attention. Even in a highly concerned and frequently exposed group, respondents still reported difficulty evaluating information quality.

Indicator	Share
At least moderately concerned	85.1%
Very / extremely concerned	62.1%
Weekly or more climate-information exposure	80.7%

Table 1. Climate concern and exposure among CLIMAware respondents aged 18–34.

4.2 Information channels

Television was the leading reported climate-information channel among respondents aged 18–34 at 52.5%. Instagram followed at 45.4%, while newspapers or magazines reached 42.3%. Search engines (34.6%), YouTube (27.8%) and radio or podcasts (25.7%) also contributed meaningfully. The pattern is therefore mixed rather than purely digital. Established media retain substantial reach while Instagram is the strongest social channel in the selected group.

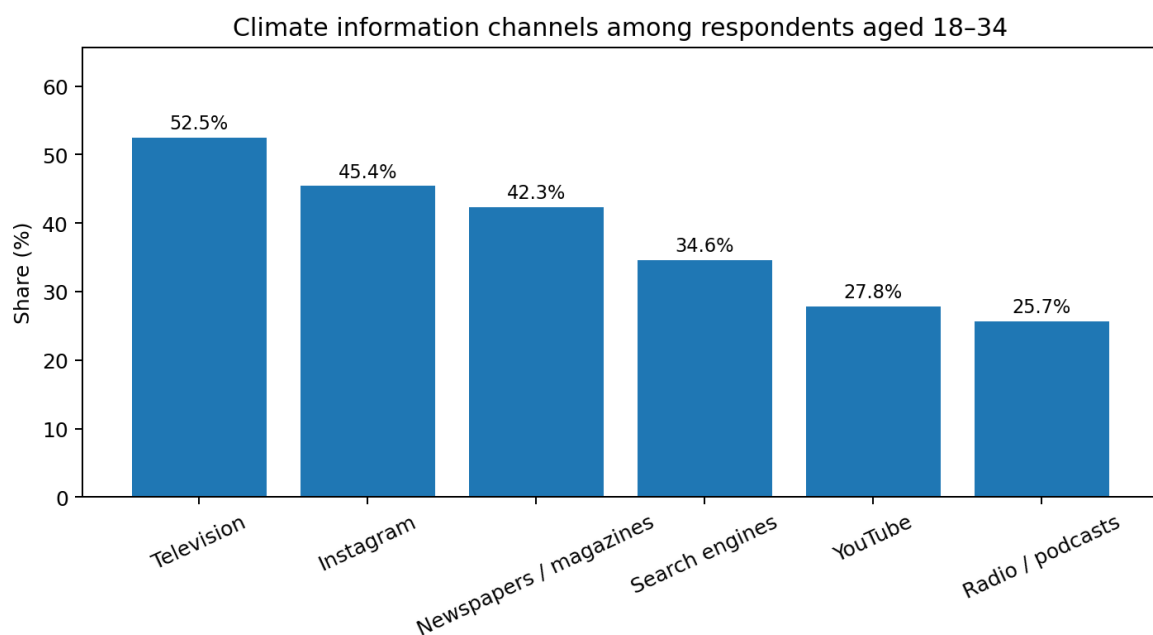


Figure 1. Climate information channels among respondents aged 18–34. Source: supplied CLIMAware age-focused analysis (2026).

A practical implication is to distribute climate information through several coordinated channels. Television and established journalism can provide credibility and depth; Instagram and YouTube can provide platform-native reach; search-optimised material can support deliberate information seeking. The channel mix should preserve source transparency so that a social post can be traced to the underlying scientific or institutional evidence.

4.3 Trust in sources

Trust results show a pronounced hierarchy. Scientists and research institutions received 72.9% high trust, far above environmental NGOs (46.7%), government or public institutions (33.1%) and mainstream media (26.0%). High trust in AI chatbots was only 6.3%, and influencers were lowest at 3.4%. The result positions scientific expertise as the clearest credibility anchor in the young-adult sample.

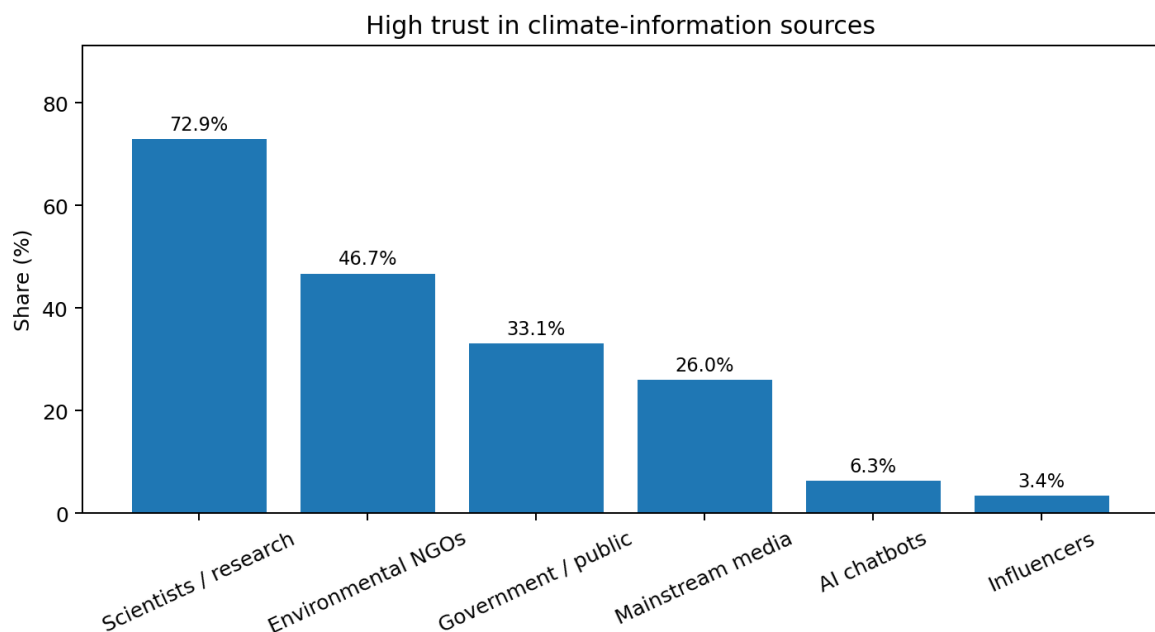


Figure 2. High trust in climate-information sources among respondents aged 18–34.

The low high-trust score for AI chatbots does not mean that they are unused. Rather, it suggests a separation between utility and authority: respondents may use digital tools while reserving stronger credibility for scientists and research institutions. Communication design should exploit this distinction by making the scientific origin of information visible even when the content is delivered through digital intermediaries.

4.4 Misinformation and verification

The age-focused results show both difficulty and resilience. A reported 39.3% indicated that distinguishing true and false information had become harder. At the same time, 37.2% checked an original source and 34.7% cross-checked information. Only 3.9% reported sharing without checking. These behaviours indicate that verification is already part of the repertoire of many respondents and can be strengthened through practical media-literacy interventions.

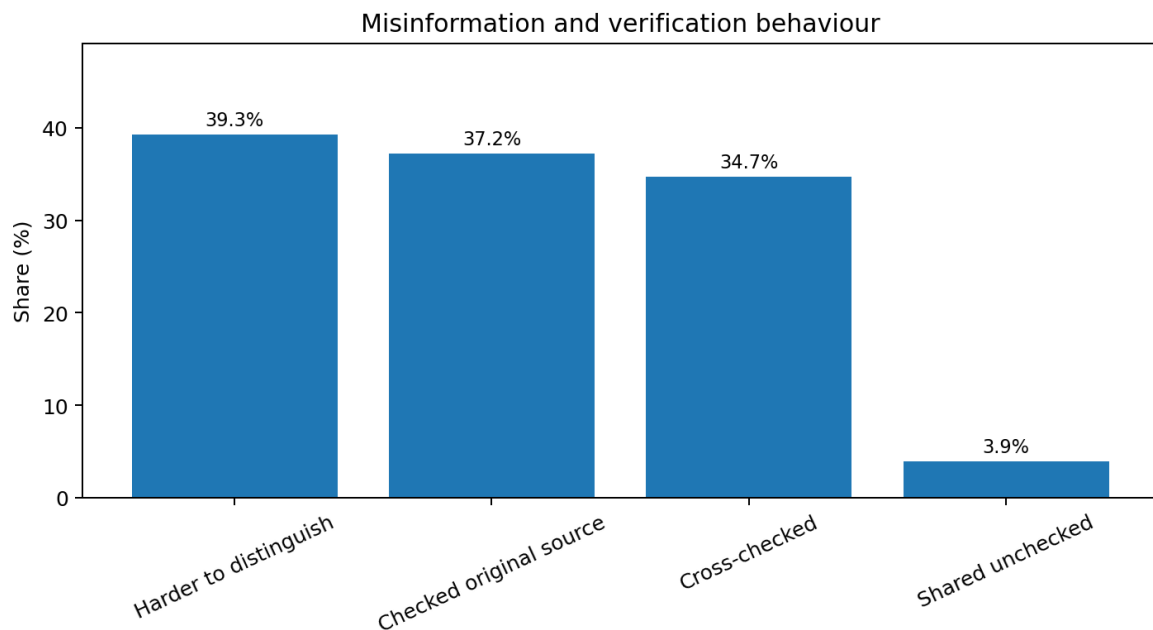


Figure 3. Misinformation and verification behaviour among respondents aged 18–34.

Verification should therefore be taught as a repeatable routine: identify the original source, inspect evidence and date, compare the claim with an independent credible source, and use fact-checking services when appropriate. The parent CLIMAware survey similarly found that active verification was associated with lower misconception scores (CLIMAware 2026), although the cross-sectional design does not establish that verification caused more accurate beliefs.

4.5 AI-generated climate content and chatbot use

Synthetic climate content is a visible part of the information environment. Among respondents aged 18–34, 43.6% reported fake extreme-weather images, 24.4% reported deepfake video or audio, 20.2% had encountered AI climate content whose accuracy they were unsure about, 16.7% reported an inaccurate AI-generated article and 11.8% reported an inaccurate chatbot answer. Only 21.4% reported high confidence in recognising AI-generated climate content. This gap between exposure and recognition confidence is one of the clearest media-literacy needs identified by the analysis.

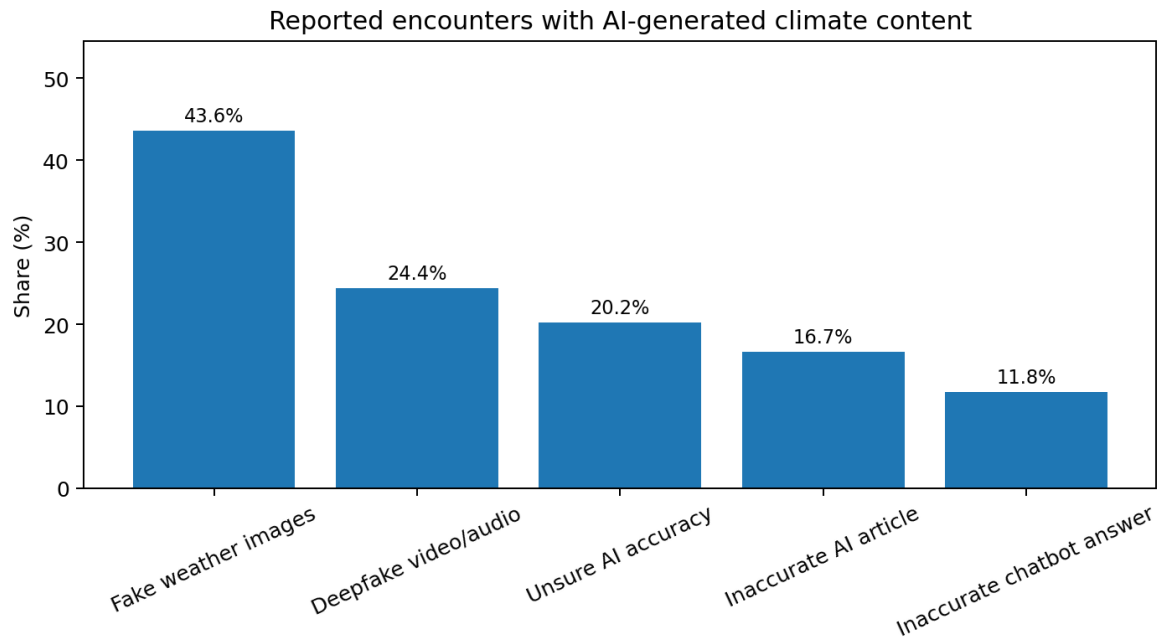


Figure 4. Reported encounters with AI-generated climate content among respondents aged 18–34.

Chatbot use was reported by 24.7% of the age-focused group. Among users, 49.4% reported moderate trust in chatbot climate answers, 23.8% high trust and 26.3% slight or no trust. This distribution suggests cautious use rather than uniform dependence. Chatbots can support information seeking, but their outputs should be checked against scientific institutions, primary research and other authoritative sources.

Chatbot indicator	Share
Reported chatbot use	24.7%
Moderate trust among users	49.4%
High trust among users	23.8%
Slight / no trust among users	26.3%

Table 2. AI-chatbot use and trust in the supplied age-focused analysis.

5 Discussion

5.1 Mixed media environment

The first major finding is that young adults in the CLIMAAware sample inhabit a mixed media environment. Television remains the leading climate-information channel even though Instagram has strong reach. This is consistent with the parent CLIMAAware finding that younger respondents are not social-media-only consumers. The practical consequence is that climate communication should not be designed as a choice between traditional and digital media. Reliability can be strengthened when the same evidence is communicated coherently across established journalism, social platforms and searchable web content.

The European Parliament Youth Survey 2024 provides useful context for understanding young people's information habits. Among 25,863 respondents aged 16–30 across the EU-27, 42% reported social media as a main source of information on political and social issues, compared with 39% for television (European Parliament 2025). This confirms the importance of social platforms for young European audiences. However, the comparison is not direct: CLIMAAware asks specifically about climate information among respondents aged 18–34 and uses a convenience sample, while the European Parliament survey covers political and social information among people aged 16–30. The comparison is therefore contextual rather than statistically equivalent.

5.2 Scientific expertise as a trust anchor

The second major finding is the strength of scientific credibility. High trust in scientists and research institutions is substantially greater than high trust in any other source category in the age-focused results. This creates a practical opportunity. Communication does not need to hide expertise to become accessible. Instead, scientific sourcing can be made more visible through named institutions, links to evidence, concise explanations of uncertainty and clear distinction between research findings and commentary.

Low high-trust scores for influencers and AI chatbots also warn against using reach as a substitute for authority. Influencers may still help distribute messages, and AI may help users navigate information, but the credibility chain should remain traceable to scientific or institutional evidence. This is especially important when climate misinformation increasingly targets expert trust and the effectiveness of solutions rather than denying climate change outright.

5.3 Verification as a teachable practice

The third major finding is that verification behaviour is a practical strength that can be developed. More than one third of the age-focused respondents reported checking original sources or cross-checking information, while unchecked sharing was uncommon. Media-literacy interventions can therefore build on behaviours that already exist rather than assuming that audiences are passive. Short demonstrations can show how to open the original study, compare headlines with source material, inspect image provenance and seek independent confirmation.

The parent CLIMAware findings add an important caution: people can reject obviously flawed arguments on the “other side” while accepting similarly flawed reasoning when it supports a conclusion they already favour. Verification training should therefore be content-neutral. The question should not be “Do I agree with this claim?” but “Is this claim supported by a credible source, appropriate evidence and sound reasoning?”

5.4 AI literacy as an emerging need

The fourth major finding is the recognition gap around AI-generated content. Fake extreme-weather imagery was the most common synthetic-content encounter, while only about one fifth of the age-focused group reported high recognition confidence. Visual climate misinformation is particularly important because dramatic weather images can circulate rapidly during disasters, when attention is high and verification time is low.

AI literacy should therefore be integrated into general source literacy rather than treated as a separate technical subject. Users need simple habits: identify the original uploader, check whether reputable outlets or agencies show the same event, inspect metadata or provenance signals where available, reverse-search suspicious images, and verify chatbot claims against primary or institutional sources. The aim is not to identify AI with perfect certainty but to make verification normal when content is consequential or surprising.

6 Recommendations

The findings support four communication priorities for organisations addressing young adults in the CLIMAware context.

- Anchor messages in science. Use scientists and research institutions as visible, traceable sources and link claims to evidence.
- Use a portfolio of channels. Combine television and established journalism with Instagram, YouTube and search-oriented content instead of assuming a social-media-only youth audience.
- Make verification teachable. Demonstrate original-source checking, independent cross-checking, fact-checking and evaluation of argument quality.
- Include AI and synthetic-media literacy. Teach verification of images, deepfakes, AI-written material and chatbot claims as part of ordinary media literacy.

Implementation should be adapted to platform conventions. A television segment may provide context and expert explanation, while Instagram can use short visual summaries linked to a fuller source page. Search-oriented pages should answer common questions clearly and cite evidence. AI-literacy content should use realistic examples and focus on verification steps rather than on technical detection claims that may become outdated quickly.

7 Summary

This research report examined how climate-related information circulates among CLIMAAware respondents aged 18–34 and which communication patterns are most relevant to reliable climate knowledge. The evidence shows a mixed channel environment: television leads, but Instagram and other digital channels are also important. Scientists and research institutions are the most trusted sources, while influencers and AI chatbots receive much lower high-trust ratings. Many respondents already verify information by checking original sources or cross-checking, but a substantial share finds it harder to distinguish true from false information. AI-generated climate content adds a new recognition challenge, particularly through fake extreme-weather images and deepfakes.

The main communication challenge is therefore not simply access. It is the ability to identify credible sources, evaluate reasoning, verify claims and navigate synthetic content. For the CLIMAAware context, the most defensible strategy is a mixed-channel approach that keeps scientific sourcing visible, strengthens practical verification and incorporates AI literacy. These conclusions apply to the respondents analysed and should not be generalised to all European youth because the survey used voluntary convenience recruitment and a geographically uneven sample.

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