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D6.3: ELOQUENCE societal acceptance and acceptability- approved by the ELOQUENCE Community

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Abstract

This report constitutes Deliverable D6.3 of the ELOQUENCE project (Grant Agreement No. 101135916), funded under the Horizon Europe programme. It presents the findings of Task T6.3 (Societal Acceptance and Acceptability: Assessment of Key Technologies), led by GrantXpert with contributions from the European University Institute (EUI) and consortium partners. The report addresses the societal dimension of the ELOQUENCE project's mission to develop inclusive, multilingual, and ethically grounded Generative AI (GenAI) conversational technologies for use in safety-critical and public-facing applications across Europe.

The report is structured in two complementary parts. Part I situates the study in the state-of-the-art of AI language model developments and European projects, covering the evolution of transformer-based architectures and Large Language Models (LLMs), European multilingual initiatives (including TildeLM, OpenEuroLLM, and the ELOQUENCE project itself), EU-funded AI research programmes, ethical frameworks for trustworthy AI, human-AI collaboration in safety-critical settings, and emerging trends in explainability, multimodality, and sustainability. Part II presents the empirical findings of the ELOQUENCE Survey 2026, an anonymous online survey administered via EUSurvey and disseminated through a coordinated multi-channel outreach strategy. The survey collected 795 valid responses from members of six underrepresented target groups, Women, Non-nationals, LGBTI/SOGI communities, People of African Descent, People with a Disability, and Elderly individuals (65+), across 66 countries, with the majority of respondents residing in Europe.

Key findings reveal that while awareness of GenAI capabilities is high (over 90% of respondents were aware of AI that can write text or understand speech), trust in its ethical use remains critically low, with a mean score of 2.33 out of 5. A substantial majority (81.8%) believe current GenAI regulations are insufficient, and 86.8% are either uncertain or doubtful that GenAI systems respect human dignity and privacy. Text-based interaction is preferred by the majority, yet nearly 40% favour voice or mixed modalities, directly validating the ELOQUENCE

project's voice-enabled AI focus. Significant multilingual accessibility gaps were identified, with English dominating GenAI interactions despite the survey's highly diverse linguistic respondent base. The findings carry direct implications for the design, ethical governance, and societal deployment of the ELOQUENCE AI tool, and contribute to the broader European evidence base on public attitudes toward Generative AI.

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ABBREVIATIONS AND ACRONYMS	
AI	Artificial Intelligence
B2C	Business to Consumer
C2C	Citizen to Citizen
CEDAW	Convention on the Elimination of Discrimination Against Women
CJEU	Court of Justice for the European Union
ECHR	European Convention on Human Rights
ECtHR	European Court of Human Rights
EU	European Union
G2C	Government to Citizen
GDPR	General Data Protection Regulation
GenAI	Generative Artificial Intelligence
GPAI	General Purpose AI
ICERD	International Convention the Elimination of All Forms of Racial Discrimination
LLM	Large Language Model
OECD	Organisation for Economic Co-operation and Development
XAI	Explainable AI

1 Executive Summary

This report, deliverable D6.3 of the ELOQUENCE project, presents the findings of Task T6.3 (Societal Acceptance and Acceptability: Assessment of Key Technologies), led by GrantXpert (GX) with contributions from EUI, PN, UESSEX, and FBK.

The report is structured in two complementary parts. Part I situates the report in the state of the art, providing a brief review of existing literature and relevant European initiatives on AI models and acceptability, forming the theoretical and contextual foundation. Part II presents the empirical findings of the ELOQUENCE Survey 2026, which collected 795 responses primarily from members of six specific target groups across Europe and beyond.

Key findings from the survey:

- All six target groups (Women, Non-nationals, LGBTI/SOGI, People with Disabilities, Elderly 65+, People of African Descent) surpassed the 100-response internal target set by ELOQUENCE.
- Basic GenAI awareness is high: over 90% of respondents had heard of AI capable of understanding language and producing text.
- Trust in the ethical use of AI is critically low, with a mean score of 2.33 out of 5.
- 58.9% believe that public information about GenAI is insufficient.
- 50.7% believe that GenAI can improve inclusion and accessibility, though significant uncertainty remains.
- 81.8% of respondents believe that current GenAI regulations should be made stricter.
- English dominates as the language used for GenAI interaction, highlighting significant multilingual accessibility gaps.
- 113 respondents provided free-text qualitative comments, offering community-level insights.

The findings of this report directly inform the ongoing development of ELOQUENCE AI solutions and provide an additional evidence base for ethical, legal, and societal assessment across the project.

2 Introduction

The rapid advancement of Generative AI (GenAI) language technologies is transforming sectors from healthcare to public services, raising fundamental questions about inclusivity, ethics, trust, and societal acceptance. Within the ELOQUENCE project, funded under the Horizon Europe programme, Work Package 6 (Ethical, Legal and Societal Assessment and Validation) is responsible for ensuring that the technologies developed within the project align with European values and meet the needs of diverse communities.

This deliverable (D6.3) fulfils Task T6.3, which mandates a two-pronged assessment of societal acceptance and acceptability: firstly, through desk research and literature review of existing state-of-the-art AI developments and European initiatives; and secondly, through structured surveys capturing users' awareness, attitudes, and perceptions of GenAI technologies across six specific target groups.

2.1 Objectives

- Situate the study in the current state-of-the-art in AI language models and European AI initiatives.
- Assess the level of awareness and acceptance of Generative AI among often underrepresented communities in Europe.
- Identify ethical concerns, trust levels, interaction preferences, and multilingual accessibility challenges.
- Capture community perspectives on AI regulation and governance.
- Inform the design and development of ELOQUENCE AI solutions

2.2 Structure of the report

This report is divided into two main parts. Part I (Sections 3–10): State-of-the-Art Review presents a brief literature review of AI language model developments, European initiatives, ethical frameworks, and future trends. Part II (Sections 11–22): Survey Findings discusses the empirical findings from the ELOQUENCE Survey 2026, based on 795 responses from members of six specific target groups, including data visualisations, statistical analysis, and qualitative insights.

2.3 Methodology

The methodological approach for T6.3 draws on two complementary streams:

1. **Desktop Research:** An in-depth review of existing academic literature, EU-funded research outputs, and policy documents relating to AI language models, ethics, multilingualism, and societal impact.
2. **Structured Survey:** A public online survey administered anonymously via EUSurvey, the European Commission's official platform. The questionnaire comprised 31 questions. The full questionnaire is included as Annex I of this report. The survey was disseminated through a coordinated outreach strategy involving NGO networks (70+ organisations across 8 countries), university networks, paid social media campaigns, scientific and research community forums and consortium partner channels. Data collection ran from January 2026 to 6 July 2026.

2.4 Target Groups

In line with the ELOQUENCE project's commitment to inclusivity, the survey specifically targeted six often underrepresented communities:

Table 1: Target groups and their descriptions

Target Group	Description
Women	Individuals who identify as women
LGBTI / SOGI Community	Individuals who self-identify as members of the LGBTI/SOGI community
Non-nationals	Individuals who are not nationals of their current country of residence
People of African Descent	Individuals who self-identify as being of African descent
People with a Disability	Individuals who self-identify as having a disability
Elderly (65+)	Individuals aged 65 and above

3 Part 1: State-of-the-Art Review

This part presents a brief review of the current state-of-the-art in AI language models, European AI initiatives, ethical considerations, and future directions. It forms the theoretical and contextual foundation for the survey findings presented in Part II.

The field of artificial intelligence (AI) language models has witnessed unprecedented advancements in recent years, transforming the landscape of natural language processing, dialogue systems, and human-AI interaction (Brown et al., 2020; Bommasani et al., 2021). These technologies are increasingly integrated into various sectors, from commercial applications to governmental services, with significant potential for social impact and economic development (European Commission, 2023a). European initiatives are particularly focused on developing AI models that align with European values, emphasising trustworthiness, ethical considerations, and multilingual capabilities while ensuring competitive technological advancement (Ulnicane, 2022). This report provides a detailed examination of current state-of-the-art language models, prominent European projects, ethical considerations, and future directions in this rapidly evolving field.

3.1 The Evolution and Architecture of AI Language Models

Language models represent a fundamental component of natural language processing (NLP), designed to comprehend and generate human language by learning grammar, syntax, and semantics (Jurafsky & Martin, 2021). The evolution of language models has been marked by significant technological advancements that have dramatically improved their performance and capabilities over time. This section provides an overview of these advancements. Despite these advancements, a critical gap remains in the literature: the specific needs and experiences of underrepresented and marginalised communities, including linguistic minorities, migrants, elderly populations, and people with disabilities, remain largely absent from multilingual AI research agendas (Blodgett et al., 2020; Joshi et al., 2020). Addressing this gap is a central motivation of the ELOQUENCE project, which explicitly targets these communities in both its technical development and its societal assessment activities.

3.1.1 Early Developments and the Rise of Transformers

Early neural network-based language models from the 1990s yielded modest results (Bengio et al., 2003), but recent developments in pre-training methodologies, transformer architectures, and self-attention mechanisms have revolutionised the field. The transformer architecture introduced in 2017 has become the foundation for modern language models due to its ability to process data in parallel using attention mechanisms (Vaswani et al., 2017). Unlike recurrent neural networks that process data sequentially, transformers use an attention mechanism and an encoder-decoder structure that enable parallel data processing, resulting in substantially faster AI model training (Wolf et al., 2020). This architectural innovation has facilitated breakthroughs in natural language processing tasks, including machine translation, question answering, text summarisation, and generation of coherent long-form text (Devlin et al., 2019; Liu et al., 2019; Raffel et al., 2020).

3.1.2 Large Language Models (LLMs) and Their Capabilities

LLMs function through a sophisticated blend of neural networks and machine learning techniques that enable them to process and generate original text and imagery (Kaplan et al., 2020). These models operate by training on vast datasets, with neural networks serving as the model's "brain" that learns patterns, structures, and language nuances over time (Radford et al., 2019). The historical development of LLMs has seen exponential growth in model size and capabilities, from GPT-2's 1.5 billion parameters (in 2019) to GPT-3's 175 billion parameters (in 2020), demonstrating increasingly remarkable abilities in generating human-like text, translation, and question answering (Radford et al., 2019; Brown et al., 2020).

Recent years have witnessed further specialisation of language models and the emergence of multimodal capabilities that integrate text with other data formats such as images and audio. The period from 2021 – 2023 saw the development of specialized models like Google's LaMDA for conversational applications (Thoppilan et al., 2022) and the introduction of multimodal models like DALL·E by OpenAI, capable of generating images from textual descriptions (Ramesh et al., 2021, 2022).

The integration of multiple modalities in AI systems represents a significant advancement in language model development. Work by Li et al. (2023) demonstrates progress in combining text, image, and audio processing capabilities within unified AI models. These multimodal approaches enable enhanced cross-modal understanding, improved performance on tasks requiring reasoning across different data types, and novel applications in domains such as medical diagnosis and autonomous systems (Baltrusaitis et al., 2019; Hu & Singh, 2021).

Advancements in model architecture represent another key area of progress, with research introducing novel approaches that significantly improve the efficiency and performance of large language models. These innovations include sparse attention mechanisms that reduce computational demands, adaptive computation techniques that allocate resources more efficiently, and improved few-shot learning capabilities that enhance model performance with limited training examples (Tay et al., 2022; Zhao et al., 2023).

These multimodal and conversational developments form the direct technical backdrop for the ELOQUENCE project, which builds on transformer-based architectures to develop multilingual, voice-enabled dialogue systems designed for safety-critical and public-facing applications across Europe.

3.1.3 Cross-Lingual Transfer Learning

Research by Müller et al. (2023) has demonstrated promising progress in cross-lingual transfer learning techniques that allow language models to adapt efficiently to new languages with minimal fine-tuning. This approach offers significant potential for creating more inclusive AI systems capable of supporting a wide range of European languages, with key improvements observed in performance on low-resource languages, reduced training time for new language adaptation, and enhanced cross-lingual understanding and generation (Aharoni et al., 2019; Bapna et al., 2022). These advancements address a fundamental challenge in ensuring that AI technologies serve diverse linguistic communities rather than primarily benefiting speakers of dominant languages.

3.2 European AI Research and Development Initiatives

ELOQUENCE is part of a broader movement of European and national research projects aiming to advance research and development in these technologies. In the following, we will briefly account for a selection of state-of-the-art projects related to our goals. The European Union has demonstrated a significant commitment to advancing AI research and development through various funded initiatives and projects. Since 2014, the number of AI-focused projects managed by the European Research Executive Agency (REA) has consistently increased, with the agency currently overseeing more than 1,000 projects that either focus on AI or utilize AI tools (European Research Executive Agency, 2023). These projects have received over €1.7 billion in EU funding under the Horizon 2020 and Horizon Europe programmes, reflecting the substantial investment being directed toward AI innovation in Europe (European Commission, 2023c; European Parliament Research Service, 2023).

3.2.1 European projects on multilinguality

3.2.1.1 TildeLM Project

The TildeLM project focuses on creating a foundational large language model with over 30 billion parameters that covers all European languages, with special attention to under-represented Baltic and Eastern European languages (European Commission, 2023b). Supported by the European Commission, this initiative aims to develop an open model that will serve as the foundation for a wide range of AI applications benefiting over 155 million

Europeans (Gruzitis et al., 2023). The project specifically targets Eastern European and Baltic languages such as Bulgarian, Croatian, Czech, Estonian, Finnish, Latvian, and Lithuanian, while also supporting major languages like English, French, German, and Russian in balanced proportions to facilitate translation and related multilingual tasks (European Language Resource Coordination, 2023).

3.2.1.2 OpenEuroLLM Project

The OpenEuroLLM project involves approximately 20 organisations and is led by Charles University in Prague and the Finnish AI lab Silo AI (Sarlin & Hajič, 2023). This initiative aligns with Europe's focus on digital sovereignty and aims to develop open-source large language models for all 24 official EU languages, including those of countries in EU accession talks, such as Albania (European AI Alliance, 2023). The project's primary objective is to create a series of foundation models that reflect the linguistic and cultural diversity of all EU languages, potentially including a core multilingual model and smaller versions tailored for various applications (Charles University & Silo AI, 2023).

3.2.1.3 Real-World Applications of Multilinguality: The EU Institutional LLM

A notable recent development is the release of the EU Institutional LLM by the European Commission's Directorate-General for Translation in July 2026 (European Commission, 2026a). It is an open-source large language model based on the Mistral architecture and fine-tuned on EU institutional data. The model supports all 24 official EU languages and has been developed with the explicit aim of preventing digital language extinction. It ensures that lower-resourced European languages are not left behind in the AI transition (European Commission, 2026b). Unlike commercially developed models that prioritise high-resource languages such as English, the EU Institutional LLM reflects a deliberate policy choice to embed linguistic diversity into AI infrastructure at the institutional level. This initiative is directly relevant to the ELOQUENCE project, which shares the goal of developing multilingual conversational AI that serves underrepresented linguistic communities across Europe.

3.2.2 European projects focused on ethical AI

3.2.2.1 VISION Project

The VISION Project has played a crucial role in shaping Europe's AI ecosystem. Funded under the Horizon 2020 program from September 2020 to August 2024, VISION aimed to reinforce and interconnect Europe's AI community, facilitating collaboration between academic institutions, industry partners, and policymakers across the EU (VISION Consortium, 2023). With a budget of approximately €2 million, the project focused on mobilizing the European AI community, strengthening synergies among European AI Networks of Excellence Centers, fostering academia-industry collaboration, developing AI skills and education in Europe, and supporting communication and dissemination efforts (European Commission, 2020; VISION Project Coordinator, 2024).

3.2.2.2 AI4Media Project

The AI4Media project, also funded under Horizon 2020, has focused on establishing a Centre of Excellence for AI research specifically in the media sector (AI4Media Consortium, 2023). This initiative has made substantial contributions to the development of ethical and trustworthy AI deployment strategies, with notable outcomes including advanced content verification algorithms, improved fake news detection systems, and guidelines for ethical AI use in media production and distribution (Apostolidis et al., 2022; Mezaris & Nixon, 2023).

3.2.2.3 vera.ai Project

The vera.ai project is important for transparency; it develops methods for detecting AI-generated content, developing sophisticated tools for identifying deepfakes, ensuring transparency in AI-generated outputs, and tracing the origin of synthetic media (vera.ai Consortium, 2023). Additionally, the European Digital Media Observatory (EDMO) has spearheaded several AI-focused projects aimed at countering online disinformation, with four EU-funded initiatives making significant progress in detecting local manipulations in synthetic images, analysing unique signatures left by generative AI systems, and developing cross-platform disinformation tracking tools (European Digital Media Observatory, 2023; EDMO Technical Board, 2023).

3.2.3 National Initiatives

3.2.3.1 OpenGPT-X Project

The OpenGPT-X project, funded by the German Federal Ministry for Economic Affairs and Climate Protection from 2022 – 2025, aimed to develop a large-scale AI language model specifically tailored for European needs (German Federal Ministry for Economic Affairs and Climate Protection, 2022). Key achievements of this project include the creation of "Teuken-7B", a language model trained in all 24 official EU languages, development of privacy-preserving training techniques, and establishment of a European AI infrastructure for model development and deployment (OpenGPT-X Consortium, 2023; Rehm et al., 2023).

3.2.3.2 AI Innovation Package

The AI Innovation Package, launched by the EU in 2024, represents another concerted effort to support AI startups and SMEs in developing trustworthy AI solutions (European Commission, 2024b). Key components include the "GenAI4EU" initiative to stimulate generative AI adoption, funding schemes for AI startups focused on ethical and sustainable AI, and regulatory sandboxes for testing innovative AI applications (European Commission, 2024c).

3.2.4 ELOQUENCE as part of the European research community

The ELOQUENCE project, funded under the Horizon Europe program, represents another European effort focused on developing advanced multilingual conversational AI technologies (European Commission, 2024a). Starting in 2024, this project involves a consortium of 16 partners working to develop innovative technologies for collaborative voice and chatbots (ELOQUENCE Consortium, 2024a). ELOQUENCE aims to address the challenge of comprehending unstructured dialogues by translating them into explainable, safe, knowledge-grounded, trustworthy, and bias-controlled language models (García-Ferrero et al., 2024a). The project's key objective is to create technology capable of autonomous learning that efficiently supports most European languages while adhering to sustainable computational practices and European values, including fundamental rights (ELOQUENCE Consortium, 2024b).

Taken together, the initiatives reviewed in this section, TildeLM, OpenEuroLLM, the EU Institutional LLM, and the nationally funded projects such as OpenGPT-X, reflect a coherent and accelerating European commitment to developing multilingual AI that serves all EU languages equitably. These projects share a common challenge: ensuring that AI systems do not replicate or deepen existing linguistic inequalities by privileging high-resource languages. The ELOQUENCE project contributes directly to this agenda by focusing specifically on the needs of underrepresented and marginalised communities, for whom language access is not merely a technical issue but a matter of social inclusion and equal participation. As such, ELOQUENCE sits at the intersection of Europe's multilingual AI ambitions and its ethical AI commitments, a positioning that is unique within the current European research landscape.

European initiatives are increasingly shaping AI language model development through their emphasis on values-aligned, multilingual, and sustainable approaches (European Commission, 2023d). Projects like ELOQUENCE aim to reduce the quantity of training data and energy consumption by 50%, making AI technologies more accessible and environmentally friendly (ELOQUENCE Consortium, 2024f). This focus on efficiency and sustainability represents a distinctive European contribution to global AI development that may influence broader industry practices (Strubell et al., 2019). Additionally, the emphasis on supporting diverse European languages through projects like TildeLM and OpenEuroLLM addresses a critical gap in current AI capabilities and may lead to more inclusive language technologies that serve previously underrepresented linguistic communities (Gruzitis et al., 2023; European Language Resource Coordination, 2023).

3.3 Ethical Considerations and Trustworthy AI Development

In order to keep users and society safe, lawmakers, academic literature and developers of industry standards have developed a series of rules, principles and methodologies for adjusting language models. ELOQUENCE is very

much part of this movement, as evidenced in deliverables D6.1 and D6.2, which develop an assessment methodology for ensuring adherence to European values and human rights law in generative AI applications. In the following is a brief overview of literature and methods developed to ensure bias mitigation and moral reasoning in LLMs.

3.3.1 Ethical Challenges in Large Language Models

The EU High-Level Expert Group on AI identifies seven key requirements for trustworthy AI: human agency and oversight, technical robustness and safety, privacy and data governance, transparency, diversity and non-discrimination, societal and environmental wellbeing, and accountability (High-Level Expert Group on AI, 2019). Large language models present specific challenges in relation to each of these requirements, as explored in the subsections below.

3.3.2 Bias Mitigation Techniques

Research on bias mitigation in language models represents a critical area of ethical AI development. A comprehensive study by Blodgett et al. (2020)examined various techniques for reducing gender and racial biases in large language models, proposing a novel approach combining data augmentation and adversarial training to create more equitable AI systems. Their work proposed a three-pronged approach including data augmentation techniques to balance representation, adversarial training to identify and mitigate biases, and continuous evaluation and fine-tuning processes (Blodgett et al., (2020)). Complementing this research, Ramirez et al. (2023) proposed a comprehensive framework for ethical AI development that outlines principles and practical guidelines for ensuring responsible development and deployment of AI systems, particularly language models (Hagendorff, 2022; Talat et al., 2022).

3.3.3 Transparency and Explainable AI (XAI)

Explainable AI represents a critical area of advancement that addresses fundamental concerns regarding the transparency and interpretability of increasingly complex language models. Garcia et al. (2023) have focused on developing visualization techniques for model decision-making, creating natural language explanations for AI outputs, and designing interactive interfaces for exploring model behavior. These approaches aim to demystify the internal operations of AI systems, making their reasoning processes more accessible to users and developers alike (Arrieta et al., 2020; Ribeiro et al., 2016).

3.3.4 Moral Reasoning Capabilities of LLMs

The debate surrounding the moral reasoning capabilities of language models presents another dimension of AI ethics research. Several studies have evaluated perceptions of LLM moral reasoning by comparing the perceived morality and advice quality of GPT models against human experts. A study published in Nature Scientific Reports found that Americans rated ethical advice from GPT-4o as slightly more moral, trustworthy, thoughtful, and correct than that of a popular New York Times advice column (Aharoni et al., 2025). The research assessed how people view GPT's ability to justify moral decisions by comparing its explanations of moral judgments to those written by people and evaluating GPT's moral advice against that of an expert ethicist (Awad et al., 2018).

3.3.5 ELOQUENCE and European Values

The ELOQUENCE project exemplifies Europe's commitment to developing conversational AI technologies that adhere to rigorous ethical, legal and technical standards while serving safety-critical applications (ELOQUENCE Consortium, 2024c). The project emphasises the integration of self-supervised learning and human-in-the-loop systems to ensure AI robustness and ethical compliance (García-Ferrero & Menéndez, 2024). Through an iterative process of constant assessment and evaluation of emerging AI solutions, the project secures compliance with

ethical principles, fundamental rights and other European values. By incorporating advanced speech and language understanding technologies into safety-critical applications, ELOQUENCE aims to enhance support for multilingual and multimodal environments, including under-resourced languages, while enabling real-time feedback and continuous refinement of AI models through pilot implementations (ELOQUENCE Technical Committee, 2024).

3.4 Human-AI Collaboration in Safety-Critical Applications

3.4.1 Human-in-the-Loop Systems

The development of effective frameworks for human-AI collaboration represents a crucial area of research with particular relevance to safety-critical applications. Amershi et al. (2019) proposed a set of guidelines for human-AI interaction that highlight key principles for designing effective collaborative systems, including optimal task allocation, real-time feedback mechanisms, and performance metrics for human-AI collaboration (Lai & Tan, 2019; Amershi et al., 2019).

3.4.2 ELOQUENCE's Approach to Safety-Critical Applications

The ELOQUENCE project specifically targets the advancement of conversational AI technologies for safety-critical applications, with a focus on integrating human oversight into system operation (ELOQUENCE Consortium, 2024d). The project aims to develop explainable, safe, knowledge-grounded, trustworthy, and bias-controlled language models that can be deployed in scenarios such as emergency response and healthcare (García-Ferrero et al., 2024b). ELOQUENCE emphasises the importance of incorporating humans-in-the-loop to ensure AI systems appropriately handle sensitive situations where errors could have significant consequences (ELOQUENCE Ethics Board, 2024).

The implementation of human-AI collaboration in safety-critical applications involves several distinct validation approaches within the ELOQUENCE project (ELOQUENCE Validation Team, 2024). The initiative utilises a hybrid strategy that incorporates human-in-the-loop supervision for high-risk safety-critical scenarios such as emergency call centres, while employing information retrieval and fact-checking against online knowledge bases for lower-risk autonomous systems like home assistants (ELOQUENCE Consortium, 2024e). This differentiated approach acknowledges varying levels of risk across different application contexts and implements appropriate safeguards accordingly (García-Ferrero et al., 2024c).

3.5 Conclusions

The current state-of-the-art in AI language models reflects rapid technological advancement alongside growing attention to ethical considerations, multilingual capabilities, and human-AI collaboration frameworks (Floridi et al., 2018). European initiatives are making significant contributions to this evolving landscape through projects that emphasise responsible AI development aligned with European values and priorities, and guided by the EU AI Act which entered into force in August 2024 (European Commission, 2024). The VISION, AI4Media, ELOQUENCE, TildeLM, and OpenEuroLLM projects exemplify Europe’s coordinated approach to advancing AI language technologies while addressing critical challenges related to multilingualism, bias mitigation, explainability, and deployment in safety-critical contexts (European AI Alliance, 2023; AI Watch, 2023).

As the field continues to evolve, several key themes emerge that will likely shape future developments (European Commission, 2023e). The advancement of more efficient model architectures promises to maintain performance while reducing computational demands, supporting more sustainable AI implementation (Frankle & Carbin, 2019). The integration of multimodal capabilities represents another significant frontier, enabling AI systems to process and synthesise information across text, image, audio, and potentially other data types (Radford et al., 2021). Improvements in explainability and transparency will address fundamental concerns about AI system trustworthiness, particularly in regulated contexts or safety-critical applications (Doshi-Velez & Kim, 2017).

The distinctive European approach to AI development, characterised by attention to ethical considerations, multilingualism, and human-AI collaboration, offers valuable contributions to global AI advancement (European Parliament, 2023; High-Level Expert Group on AI, 2019b). By balancing technological innovation with responsible development practices, European initiatives provide models for creating AI systems that not only achieve impressive technical performance but also align with societal values and needs (Craglia et al., 2018). Through these coordinated efforts, Europe is positioning itself as a significant contributor to the development of AI language models that combine technological sophistication with responsible implementation (European Commission, 2023f; AI HLEG, 2020).

The literature reviewed in Part I reveals a rapidly evolving landscape of multilingual AI development, shaped by ambitious European initiatives and growing attention to ethical considerations, trustworthiness, and human-AI collaboration. Yet a critical question remains: how are these policy commitments and technological developments experienced and perceived by the communities they are intended to serve? Part II of this report addresses this question directly, presenting the empirical findings of the ELOQUENCE Survey 2026. Through structured survey responses from 795 individuals, overwhelmingly belonging to six underrepresented target groups across Europe, Part II investigates how such policies and developments translate into the acceptability of AI technologies among regular citizens, and what this means for the design and deployment of the ELOQUENCE AI tool.

4 Part II: ELOQUENCE Survey 2026 — Empirical Findings

This part presents the empirical findings of the ELOQUENCE Survey 2026, which assessed public attitudes toward Generative AI among underrepresented and marginalised communities across Europe and beyond. Data was collected from January 2026 to 6 July 2026, yielding 795 valid responses, mainly from amongst six target groups.

4.1 Survey Background and Methodology

4.1.1 Survey and its objectives

The ELOQUENCE Survey 2026 was designed to capture public attitudes toward Generative AI (GenAI) technologies among specific, often underrepresented or marginalised, communities across Europe. As of 6 July 2026, the survey collected 795 valid responses from participants in 66 countries, with the overwhelming majority residing in Europe.

The objectives of the survey are:

- Assess awareness and prior experience of Generative AI across six specified communities.
- Understand trust levels, ethical concerns, and perceived risks associated with GenAI.
- Identify preferences for human-AI interaction modalities (voice, text, visual).
- Explore multilingual accessibility challenges in AI systems.
- Capture views on regulation, governance, and the impact of AI on underrepresented or marginalised groups.

4.1.2 Methodology

The public survey was administered anonymously via EUSurvey, the European Commission's official online survey platform. The questionnaire comprised 31 questions covering demographic profiling, AI awareness, interaction preferences, trust, and ethical perceptions. To guide the dissemination effort and ensure meaningful representation across all six specific communities, an internal target of 100 responses per target group was set by the project team. This was not a requirement under the grant agreement, but rather a self-imposed benchmark aimed at strengthening the robustness and comparability of the findings across groups.

Responses were collected from January 2026 onwards through a coordinated dissemination strategy involving NGO outreach (70+ organisations across 8 countries), university networks, social media campaigns, paid digital advertising (Meta Facebook/Instagram), and consortium partner networks. While the collection began in January 2026, response momentum accelerated significantly from May 2026, as illustrated in Figure 1 and Table 1 below, which tracks the growth trajectory from that point through to 6 July 2026.

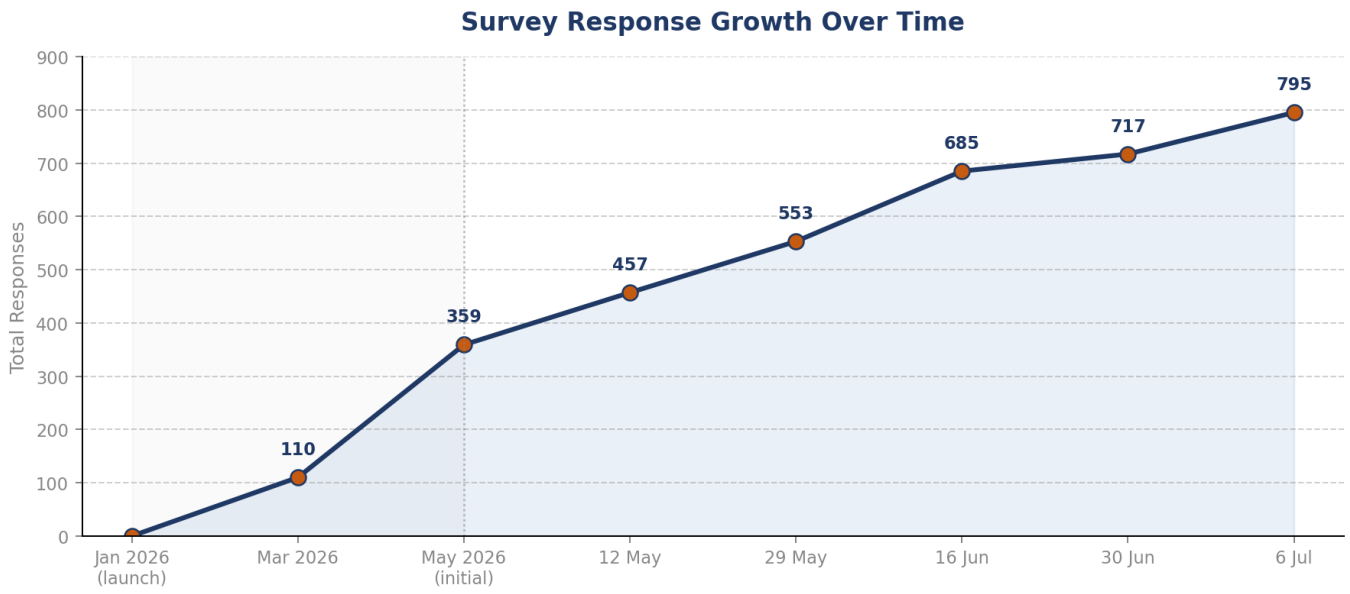

Figure 1: Survey response growth from May to July 2026, showing consistent momentum.

Table 2: Total responses by data collection snapshot (January-July 2026)

Date	Total Responses	Increase
March 2026	110	—
May 2026 (initial)	359	+249
12 May 2026	457	+98
29 May 2026	553	+96
16 June 2026	685	+132
30 June 2026	717	+32
6 July 2026	795	+78

4.2 Respondent Profile

4.2.1 Age Distribution

A total of 795 responses were collected spanning all adult age groups. The 25–34 bracket was the most represented, while 113 respondents aged 65+ reflect successful outreach to the Elderly target group.

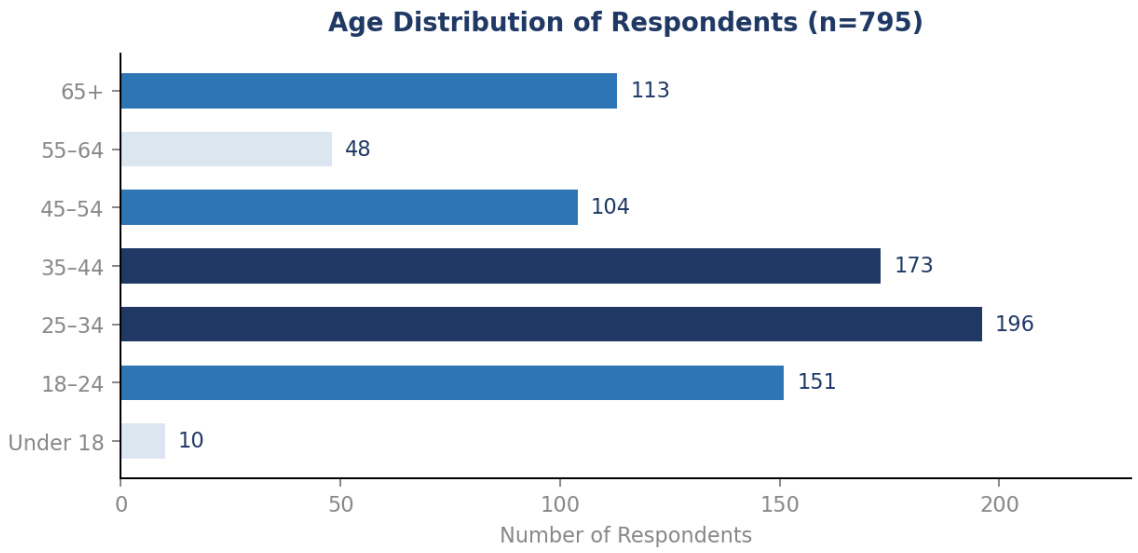

Figure 2: Age distribution of respondents (n=795).

Table 3 below shows the age distribution of survey respondents (n=795).

Table 3: Age distribution of survey respondents (n=795)

Age Group	Responses	% of Total
Under 18	10	1.3%
18–24	151	19.0%
25–34	196	24.7%
35–44	173	21.8%
45–54	104	13.1%
55–64	48	6.0%
65+	113	14.2%
TOTAL	**795**	**100%**

4.2.2 Education Level

The respondent population was somewhat skewed in terms of education level. Over 75% hold tertiary or post-graduate qualifications, reflecting how academic and professional networks were reached through the dissemination methods relied upon, as shown in Table 4.

Table 4: Educational Attainment of Survey Respondents (n=795)

Education	Level	Responses %
Postgraduate	404	50.8%
Tertiary	194	24.4%
Secondary	135	17.0%
Other	33	4.2%
Primary	29	3.6%

4.2.3 Geographic Distribution

Respondents come from 66 countries of birth, currently residing in 66 countries. 714 respondents (89.8%) live in a European country (EU member states or other European nations including Serbia, UK, Switzerland, and Norway), while 81 (10.2%) reside outside Europe. A geographic unevenness is also worth mentioning. The top 5 countries of residence were: Cyprus (147), UK (72), Serbia (65), Greece (65), and Germany (61). To maximise accessibility and participation across Europe, the survey was made available in 13 languages: English, German, French, Czech, Danish, Greek, Spanish, Finnish, Croatian, Italian, Dutch, Portuguese, and Slovenian. This multilingual approach reflects the ELOQUENCE project's commitment to linguistic inclusivity and ensured that respondents could participate in their preferred language where available.

4.3 Target Group Representation

Respondents self-identified with applicable target group(s). Multiple selections were allowed. All six groups surpassed the 100-response internal target set for the ELOQUENCE survey as shown in Figure 3 and Table 5. It is worth mentioning that, as respondents may belong to multiple groups simultaneously,percentages do not sum to 100%.

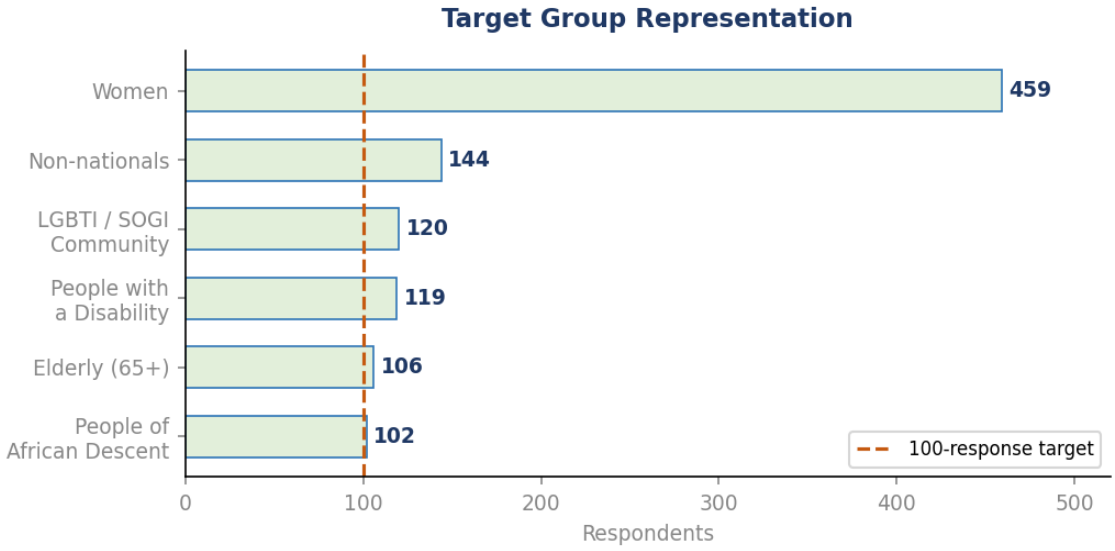

Figure 3: Responses per target group. The dashed orange line marks the 100-response internal target. All groups exceeded it.

Table 5: Survey Responses by Target Group Against the 100-Response Internal Threshold (n=795)

Target Group	Responses	% of Total
Women	459	57.7%
Non-nationals in country of residence	144	18.1%
LGBTI / SOGI community	120	15.1%
People with a disability	119	15.0%
Elderly (65+)	106	13.3%
People of African descent	102	12.8%

4.4 Awareness and Experience of Generative AI

4.4.1 Awareness of GenAI Capabilities

Respondents were asked: 'Have you heard of AI-based technologies called Generative AI, that:' and invited to select Yes or No for each of the following six capabilities: understand language and speech; recognise emotions; can write text or produce speech; can conduct interviews; can answer users' questions; and can give career advice. The results are presented in Table 6 below.

Table 6: Respondent Awareness of Generative AI Capabilities (n=795)

GenAI Capability	Yes	No	% Aware
Can write text or produce speech	733	62	92.2%
Can understand language and speech	723	72	90.9%
Can answer users' questions	720	75	90.6%
Can give career advice	598	197	75.2%
Can conduct interviews	521	274	65.5%
Can recognise emotions	446	349	56.1%

4.4.2 AI Application Experience

Of a set of illustrative examples of AI technologies, speech-enabled smart assistants generated the most positive responses. The customer service chatbots attracted notably high negative experience (288 respondents). Virtual assistants for public services received the most resistance.

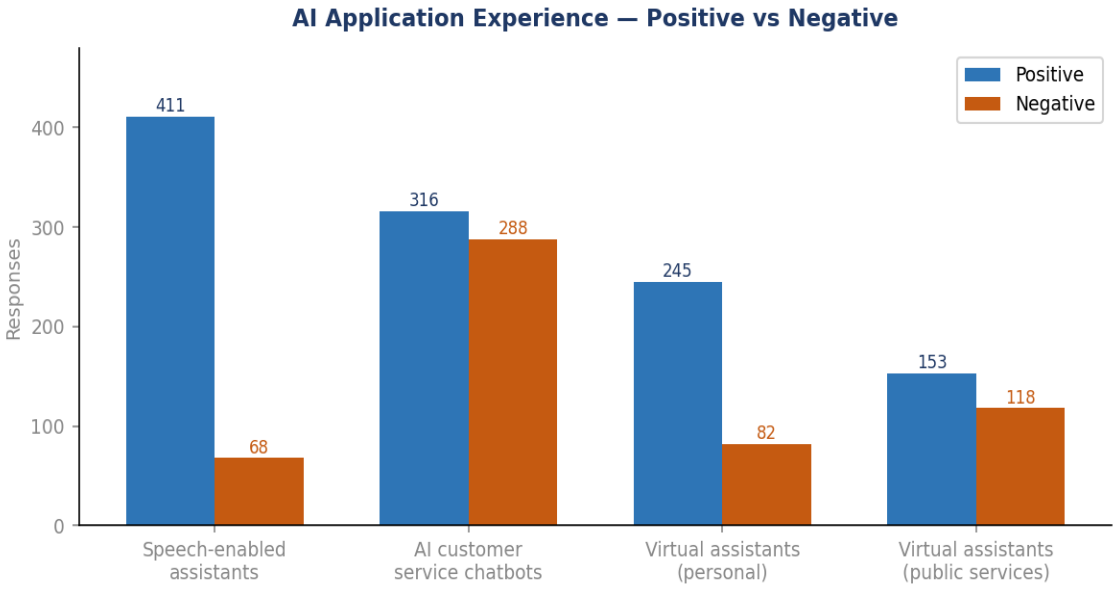

Figure 4: Positive vs. negative experience across four GenAI application types.

4.4.3 Self-Assessed Understanding of GenAI

On a scale of 0 to 5, the majority rated themselves at level 3 or 4, as shown in Table 7, indicating moderate to good self-assessed knowledge. Mean score: approximately 2.9/5.

Table 7: Self-Assessed Level of Understanding of Generative AI (n=795)

Score	Responses	Description	%
0 – None	5	No knowledge	0.6%
1 – Minimal	84	Very limited	10.6%
2 – Basic	137	Some awareness	17.2%
3 – Moderate	257	Working knowledge	32.3%
4 – Good	180	Solid understanding	22.6%
5 – Expert	90	Deep expertise	11.3%

4.5 Trust, Ethics and Perceptions of GenAI

4.5.1 Trust in Ethical Use of AI

Respondents were asked: 'How would you rate your trust in these technologies being used ethically?' and invited to rate their trust on a scale from 0 (No Trust) to 5 (Full Trust). The mean score is just 2.33 out of 5, revealing pervasively low trust across all target groups. Figure 5 and Table 8 represent these results.

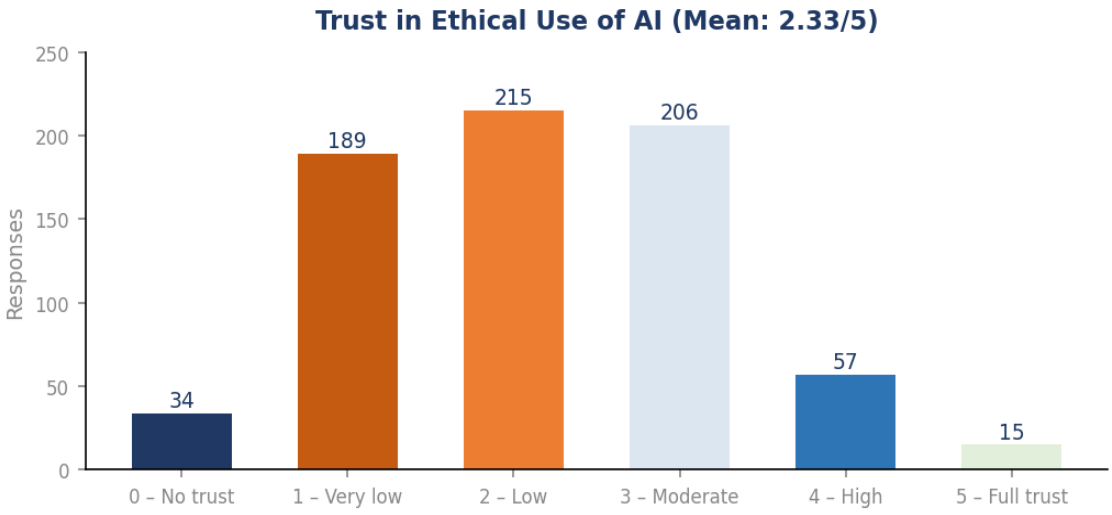

Figure 5: Distribution of trust scores (0 = no trust, 5 = full trust). Over 55% rated trust at 2 or below.

Table 8: Distribution of Trust Scores in the Ethical Use of Generative AI (n=795)

Trust Score	Responses	%
0 – No trust	34	4.3%
1 – Very low	189	23.8%
2 – Low	215	27.0%
3 – Moderate	206	25.9%
4 – High	57	7.2%
5 – Full trust	15	1.9%

4.5.2 Public Information and Inclusion Potential

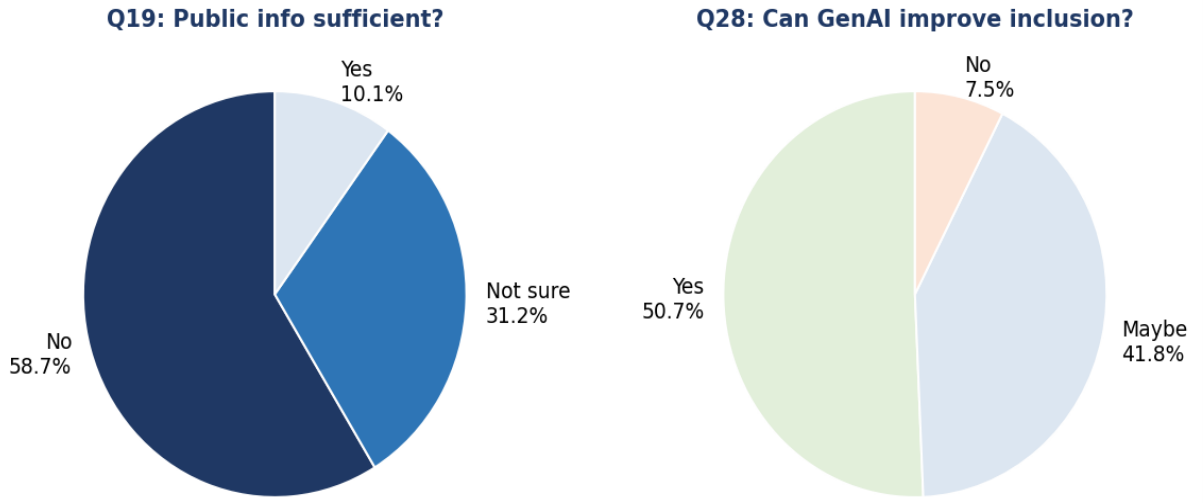

Figure 6: Left - Q19: Is public information about GenAI sufficient? Right - Q28: Can GenAI improve inclusion and accessibility?

As shown in Figure 6, nearly 60% of respondents feel that public information about GenAI was insufficient and an additional 31% were uncertain about the availability of public information. While just over half believe GenAI could improve inclusion, a substantial 41.8% remain uncertain, demonstrating a key motivation for ELOQUENCE and comparable projects.

4.5.3 Does GenAI Respect Human Dignity and Privacy?

- No: 297 respondents (37.4%)
- Not sure: 393 respondents (49.4%)
- Yes: 105 respondents (13.2%)

A combined 86.8% either do not believe or are uncertain whether GenAI systems respect human dignity and privacy; a finding with direct implications for ELOQUENCE AI solutions.

4.5.4 Concern About Emotional State Detection

- Somewhat concerning: 340 (42.8%)
- Very concerning: 248 (31.2%)
- Not concerning: 144 (18.1%)
- Would welcome it: 63 (7.9%)

74% of respondents expressed concern about AI systems detecting their emotional state. This is particularly significant for the ELOQUENCE voice-enabled AI tool, where emotional adaptation may be a design feature.

4.6 Interaction Preferences and Comfort with AI

4.6.1 Preferred Interaction Mode

Text chat dominated as respondents' preferred way of interacting with AI, but nearly 40% of respondents favored voice or mixed interaction modes, directly validating the ELOQUENCE project's focus on voice-enabled AI interfaces, as shown in Figure 7 and Table 9.

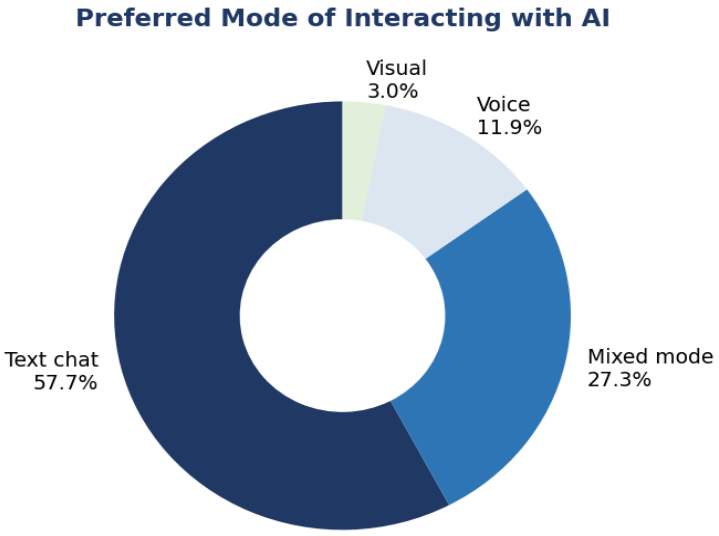

Figure 7: Preferred mode of interacting with AI systems (n=795).

Table 9: Respondent Preferences for Human-AI Interaction Mode (n=795)

Interaction Mode	Responses	%
Text chat (typing and reading)	459	57.7%
Mixed mode (combination)	217	27.3%
Voice conversation (speaking and listening)	95	11.9%
Visual interface (selecting options)	24	3.0%

Moreover, respondents were asked: 'To what extent do the following factors make you concerned or hesitant about using voice conversation with AI systems?' rated on a scale from 'Not a concern at all' to 'Major concern.' The results reveal that concerns about voice interaction are significant across all factors, with privacy being the dominant worry, 337 respondents (42.4%) rated privacy (voice data being recorded or analysed) as a Major concern, making it the highest-rated concern overall. Unauthorized voice cloning and deepfakes emerged as the single most concerning factor, with 404 respondents (50.8%) rating it as a Major concern. Notably, misunderstanding due to accent or dialect, a vulnerability particularly relevant for non-native speakers and linguistic minorities, was rated as a Significant or Major concern by 244 respondents (30.7%), underlining the importance of robust multilingual voice recognition for the ELOQUENCE tool. Figure 8 depicts these results.

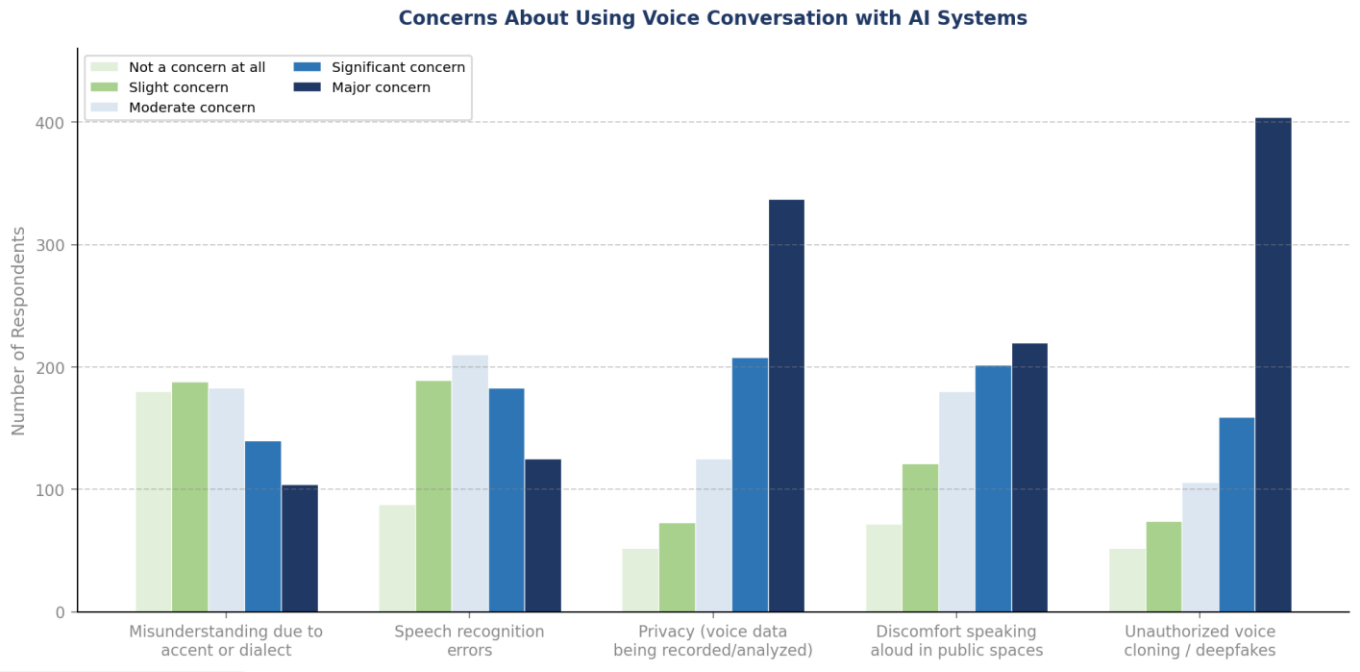

Figure 8: Respondent concerns about using voice conversation with AI systems (n=795)

4.6.2 Comfort with AI in Specific Contexts

Discomfort was notably higher for medical helpline contexts (45.7% uncomfortable/very uncomfortable) compared to career advice (32.8%), highlighting the need for careful, human-centred design in healthcare AI, as shown in Table 10.

Table 10: Respondent Comfort Levels with AI Across Two Application Contexts (n=795)

Context	Very comfortable	Comfortable	Neutral	Uncomfortable	Very uncomfortable
Career/Educational Advice	28	179	327	160	101
Medical Helpline Call	25	154	253	221	142

These findings are directly relevant to Pilot 4 of the ELOQUENCE project, which focuses on AI-assisted medical helpline services and also to Pilot 2, which examines the university counselling context to investigate the presence of social biases in the LLMs. The high levels of discomfort identified in this survey have been are partly mitigated in the current Pilots design. In the case of Pilot 4, rather than replacing human operators, the ELOQUENCE AI tool assists the healthcare professional by gathering information from the patient and presenting it to the nurse in an accessible format. The patient ultimately speaks with a human nurse, ensuring that the critical human element of healthcare communication is preserved. However, the presence of a human operator does not by itself guarantee meaningful human oversight. Questions that remain to be addressed include whether the human operator has sufficient understanding of the system's limitations, whether they can detect inaccurate or biased outputs, and whether they have the authority and time to override a recommendation. These considerations should inform the final evaluation of the pilot and any future deployment decisions, in line with the human oversight requirements of the EU AI Act. For Pilot 2 the scenario is used to observe, compare and assess social biases and unfair behaviour present in the model that can drastically affect the user perceived comfort. The methodology forces the agent to make a recommendation or allocation decision under controlled and reproducible conditions so that differences can be measured rather than inferred from a single exploratory dialogue.

4.6.3 AI Personalization and Urgency Prioritization

Respondents were broadly accepting of AI personalization based on previous interactions, with 427 respondents (53.7%) expressing comfort with this feature, 229 (28.8%) remaining uncertain, and 139 (17.5%) opposed. A similar pattern emerged regarding AI-based urgency prioritization in call handling: 433 respondents (54.5%) expressed support, while 212 (26.7%) were unsure and 150 (18.9%) were opposed. These findings suggest a cautious but generally receptive attitude toward adaptive and triage-oriented AI functionalities, provided that appropriate transparency and safeguards are in place.

4.7 Language Access and Multilingual Challenges

4.7.1 Language Used for GenAI Interactions

English appears to dominate overwhelmingly interactions with AI: 453 respondents (57%) use English as their primary GenAI language, despite the survey reaching a highly multilingual audience across 66 countries.

- English only: 453 (57.0%)
- English + other languages: ~55 additional respondents
- German: 12 | French: 6 | Spanish: 6 | Portuguese: 3

4.7.2 Barriers to Native Language Use

- Not applicable / used preferred language: 283
- Chose another language for personal reasons: 144
- Technology performs poorly in their language: 103
- Technology not available in their language: 48
- Service was preset to another language: 28

At least 151 respondents (19%) are affected by multilinguality gaps in current GenAI systems, either poor performance or absence of support in their native language. This directly motivates the ELOQUENCE project's multilingual focus.

4.8 Regulation and Governance of GenAI

4.8.1 Adequacy of Current Regulations

The results in Figure 8 and Table 11 reveal a strong and consistent preference for stricter regulation of Generative AI. A combined 81.8% of respondents believe that current regulations should be tightened to some degree, with 45.2% calling for significantly stricter rules and a further 36.6% favoring somewhat stricter measures. Only 13.1% consider current regulations adequate, while just 5.2% believe they should be relaxed in any form. These findings reflect deep public concern about the pace and direction of GenAI deployment, particularly among communities that may bear a disproportionate risk from AI bias and misuse.

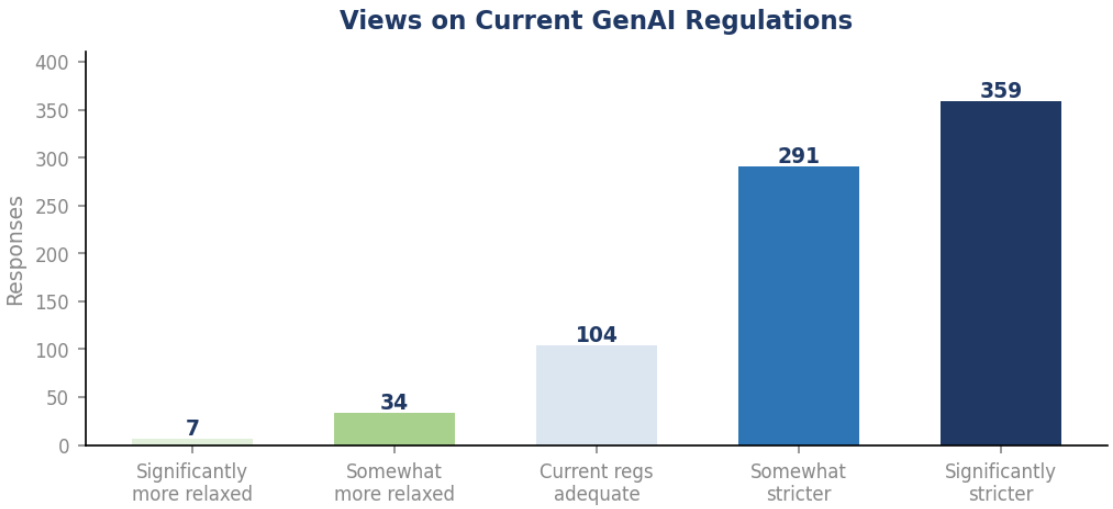

Figure 9: Views on the adequacy of current GenAI regulations (n=795).

Table 11: Respondent Views on the Adequacy of Current Generative AI Regulations (n=795)

View on Regulation	Responses	%
Regulations should be significantly stricter	359	45.2%
Regulations should be somewhat stricter	291	36.6%
Current regulations are adequate	104	13.1%
Regulations should be somewhat more relaxed	34	4.3%
Regulations should be significantly more relaxed	7	0.9%

4.8.2 Impact on Marginalised Communities

Respondents were asked: 'Do you think wide implementation of these technologies will affect marginalized communities differently than the general population?' with four response options: Yes - negatively; Yes - positively; No; Not sure. The results are as follows:

- Not sure: 285 (35.8%)
- Yes - negatively: 274 (34.5%)
- Yes - positively: 189 (23.8%)
- No different impact: 47 (5.9%)

Only 23.8% of respondents expected a positive differential impact concerning AI use on marginalised communities. Over a third of respondents believe GenAI will affect marginalized communities differently and negatively so from the general population, reinforcing the need for the ELOQUENCE project's inclusive design approach.

4.8.3 Importance of AI Deployment Principles

Table 12: Respondent Ratings of Key AI Deployment Principles by Mean Importance Score (n=795)

Principle	Mean Score (1–5)	Rank
Accessibility	3.58	1st
Accuracy (error reduction)	3.58	1st
Transparency	3.55	3rd
Bias Reduction	3.52	4th
Data Privacy	3.44	5th

Respondents were asked to rate the importance of five core principles for the deployment of AI systems on a scale of 1 to 5. The results in Table 12 show a notably consistent pattern across all five principles, with mean scores ranging very narrowly between 3.44 and 3.58, suggesting that respondents consider each principle broadly equally important. Accessibility and Accuracy jointly ranked first, reflecting a desire for AI systems that are both inclusive and reliable. Transparency ranked third, underscoring the importance of explainability in building public trust. Bias Reduction and Data Privacy followed closely, reinforcing the ethical priorities identified throughout the survey. The tight clustering of scores across all five principles sends a clear message: for marginalized communities, no single dimension of responsible AI can be treated as secondary.

4.9 GenAI in Healthcare Settings

4.9.1 Preferred Healthcare AI Communication Style

- Neutral style: 374 (47.0%)
- Empathetic style: 248 (31.2%)
- Not sure: 173 (21.8%)

Almost half preferred a neutral communication style over an empathetic style in healthcare settings, reflecting an unease with artificial empathy which has been a core focus of WP6 in the ELOQUENCE project. At the same time, nearly a third prefer an empathetic communication style suggesting a space for an adaptive, empathetic design if done carefully.

These findings must be read in conjunction with the results of Question 26 (Section 4.5.4), which asked respondents whether it would concern them if an AI assistant tried to detect their emotional state in order to adjust how it responds. A combined 74% expressed concern, 31.2% finding it very concerning and 42.8% somewhat concerning, while only 7.9% said they would welcome it. This connection is critical: an empathetic AI agent cannot function without first detecting the user's emotional state. The fact that nearly three quarters of respondents are concerned about emotion detection, while simultaneously nearly a third express preference for empathetic communication, points to a fundamental tension in the design of healthcare AI. Respondents appear to want the outcome of empathy, feeling heard and understood, without the means by which it is achieved. This paradox is highly relevant for the ELOQUENCE Pilot 4 design, as it underlines the importance of transparency: users should be clearly informed if and how emotion detection is being used.

4.9.2 AI Prioritizing Calls Based on Urgency

Surprisingly, even if Pilot 4 has preemptively excluded this functionality and the EU AI Act considers such functionality to be high risk, a majority (54.5%) supported AI-based urgency prioritization in healthcare contexts

while 18.9% opposed it. Though not a functionality planned in the ELOQUENCE project, advancements made towards avoiding algorithmic bias and furthering transparency and explainability would aid in eventual acceptance of such functions.

4.10 Free Text Responses — Qualitative Insights

Finally, question 31 invited respondents to provide additional comments or suggestions. A total of 113 substantive responses were received (14.2% of all respondents), providing rich qualitative insights to complement the quantitative findings.

4.10.1 Volume by Target Group

Table 13: Distribution of Free Text Responses by Target Group and Qualitative Analysis Feasibility (n=795)

Target Group	Total Respondents	Free Text Responses	%	Analysis Feasibility
Women	459	~65	14%	Full qualitative analysis
Non-nationals	144	~20	14%	Full qualitative analysis
LGBTI / SOGI community	120	~17	14%	Thematic analysis with caveats
People with a disability	119	~17	14%	Thematic analysis with caveats
Elderly (65+)	106	~15	14%	Thematic analysis with caveats
People of African descent	102	~13	13%	Indicative analysis

As shown in Table 13, among the 113 respondents who provided substantive free text responses, corresponded to 13-14 % regardless of group belonging. Figures are approximate as respondents may self-identify with more than one target group simultaneously, meaning free-text responses cannot be attributed exclusively to a single group. Since women were the largest respondent group, they also generated the largest qualitative dataset with approximately 65 responses, followed by Non-nationals with around 20, both of which are sufficient to support full qualitative analysis and thematic coding. The LGBTI/SOGI community, People with a Disability, and Elderly groups each contributed between 13 and 17 responses, enabling light thematic analysis albeit with the caveat that findings should be treated as indicative rather than representative. People of African Descent provided the fewest free text responses at approximately 13, which, while valuable as individual testimonies, do not constitute a sufficient sample for group-level qualitative conclusions. These figures should be interpreted with the understanding that respondents may belong to multiple target groups simultaneously.

Of the 113 substantive responses, 84 were submitted in English (84%), while 16 were submitted in other languages: German (6), Greek (4), Slovenian (2), Finnish (2), and French (1). This distribution itself reflects a key finding of the broader survey, that English dominates AI-related engagement even among non-English speaking communities, and points to a potential barrier for respondents who may have felt less able to express nuanced views in a second language.

4.10.2 Qualitative Findings by Target Group

Women (approx. 65 responses)

Women was the largest and most thematically diverse group. Dominant concerns centred on data privacy and security, over-reliance on AI, and the environmental cost of AI systems. Several respondents expressed strong resistance to AI in healthcare, with one noting: *"I find it very concerning that even the thought of using AI in the healthcare field is considered."* Others acknowledged benefits while insisting on safeguards: *"AI has a lot of potential to simplify everyday tasks and improve accessibility... that said, there are real concerns around data privacy, job losses, and people becoming too dependent on technology."* A recurring theme was the need for human oversight and transparency: *"Trustworthiness of AI technologies should be measured and results published... accompanied by humans in the loop."*

Non-nationals in country of residence (approx. 20 responses)

Privacy emerged as the dominant concern, with one respondent summarising concisely (sic): *"The main concern is only about privacy."* Others highlighted the structural dimension of AI risks: *"In all of the above settings, I think the base concern is how our information is used, who is accessing them, what are they doing with them and for whose benefit."* Another respondent raised AI illiteracy as the most pressing challenge.

LGBTI / SOGI community (approx. 17 responses)

This group expressed some of the strongest scepticism about AI in general and healthcare AI in particular. One respondent stated: *"The only amount of interaction I feel comfortable with is pre-recorded messages on a call line. I would not trust an AI whatsoever with my healthcare."* Environmental concerns were also prominent: *"I am very concerned about the privacy and environmental elements of AI. The unnecessary power used is a major issue."* A notable sub-theme was the call for universal, non-discriminatory AI governance: *"It is imperative we train all models to prioritise and safeguard the wellbeing and safety of all human beings, without privileging any characteristic or ethnicity."*

People with a disability (approx. 17 responses)

Responses reflected both optimism and concern. One respondent highlighted the specific potential of AI for people with intellectual disabilities: *"AI and robotics could assist adult people with ID [intellectual disabilities, red.] in all fields of their living, improving possibilities to live in their own homes, work, and engage in free time."* At the same time, concerns about the pace of deployment were prominent: *"Right now society is in a rush to push out AI everywhere and it's coming at the cost of reliability and accuracy."* The importance of human backup and societal recognition was also stressed: *"From artificial intelligence, I expect that they will lead to a more equal and humane society, provided this is recognised as important by the public."*

Elderly (65+) (approx. 15 responses)

Responses in this group were notable for their multilingual character, with several submitted in German and Finnish, suggesting that older respondents were more likely to express themselves in their native language. A recurring concern was the loss of human contact, captured most directly by one respondent who wrote (translated from German): *"I would always prefer to speak with a real person."* Another highlighted awareness gaps within their community: *"Nearly all of my contacts do not understand AI, how it works, its risks and benefits."* A more measured view acknowledged efficiency benefits while insisting on responsible deployment: *"I see clear potential in these technologies to improve efficiency and reduce costs in healthcare support... If applied responsibly, they could help streamline communication and provide timely guidance."*

People of African descent (approx. 13 responses)

Despite the smaller sample, several substantive themes emerged. Respondents highlighted the dual potential and risk of GenAI for historically marginalised communities: *"Generative AI has potential to improve access to services and information, particularly for communities that have faced historical barriers. However, risks around bias and unequal performance across languages need to be taken seriously, as they could deepen existing inequalities."* Healthcare AI was approached with significant caution: *"I don't think AI-assisted interactions should be allowed in healthcare as it might miss social cues only another human being can detect."* The need for transparency and human access was emphasised: *"AI can improve access and speed, but raises concerns about privacy and accuracy. It should be clear, respectful, and transparent, with easy access to a human for trust."*

4.11 Conclusions and Recommendations

4.11.1 Key Conclusions

- Among the respondents, GenAI awareness is high, but trust is critically low. Policymakers and developers must rebuild confidence through transparency, accountability, and demonstrated ethical practice.
- Text interaction dominates, but voice is relevant. Nearly 40% prefer voice or mixed modes, validating the ELOQUENCE project's focus on voice-enabled AI.
- Multilingual accessibility is a major gap. English dominates current GenAI interactions, resulting in many non-English speakers using English-language AI solutions despite the availability of their native languages.
- Regulation urgently needs strengthening. Over 80% believe current GenAI regulations are insufficient.
- Healthcare AI requires careful design. High discomfort levels with AI in medical contexts demand human-centred and transparent design. Caution is warranted regarding empathetic features: respondents may respond positively to the concept in the abstract, while in practice finding AI-simulated empathy unconvincing or even distressing.,
- Marginalized communities bear disproportionate risks from AI. A significant proportion believe GenAI will negatively impact marginalized groups differently.

4.11.2 Recommendations

- Prioritize transparency and explainability in ELOQUENCE AI solutions to directly address the trust deficit identified.
- Develop robust multilingual capabilities beyond English to serve the survey's diverse linguistic community.
- Commission further analysis of concrete use cases to translate survey findings into actionable design specifications for the ELOQUENCE AI solution, with particular attention to the appropriate role and limits of empathetic communication features. Engage with regulators and policymakers to advocate for stronger, evidence-based AI governance frameworks.
- Continue qualitative analysis of free-text responses to deepen community-specific understanding. Note: the anonymised aggregate findings of this survey may be considered for publication as part of the ELOQUENCE project's dissemination activities, subject to consortium agreement and data protection review.
- Share findings broadly with stakeholders to inform European AI policy discussions.
- Ensure that the deployment of the ELOQUENCE AI tool complies with the General Data Protection Regulation (GDPR), particularly in relation to the processing of voice data, health-related information, and emotional state data, which may constitute special-category data under Article 9 GDPR. A Data Protection Impact Assessment (DPIA) under Article 35 will be required prior to deployment in pilot settings. These considerations should be addressed in subsequent deliverables relating to the technical implementation and pilot deployment of the tool.

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6 Annex I

ELOQUENCE Survey

Fields marked with * are mandatory.

Welcome to the ELOQUENCE survey, thank-you for taking part. The survey should take no more than 10 minutes. ELOQUENCE is a research project funded by the EU Horizon programme. It investigates how to make Generative AI more accessible and how to ensure that AI technology is compatible with human rights and EU values.

Section 1: Demographics & Identity (6x Questions)

* 1. What is your age group?

- ○ Under 18
- ○ 18–24
- ○ 25–34
- ○ 35–44
- ○ 45–54
- ○ 55–64
- ○ 65+

2. Please indicate any of the following identities or affiliations that apply to you. (You may select more than one.)

- ☐ Woman
- ☐ Person of African descent
- ☐ Non-national in your current country of residence
- ☐ Person with a disability
- ☐ Elderly (65+)
- ☐ Individual who self-identifies as a member of the LGBTI / SOGI community

* 3. Please indicate your nationality (citizenship)? If you are or have been a citizen of more than one country, indicate here the country you consider your primary nationality at birth.

- Afghanistan
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Bolivia
- Bonaire, Sint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- Brunei Darussalam
- Bulgaria
- Burkina Faso
- Burundi

- Cabo Verde
- Cambodia
- Cameroon
- Canada
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Congo, Democratic Republic of the
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia
- Denmark
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands (Malvinas)
- Faroe Islands
- Fiji
- Finland

- France
- French Guiana
- French Polynesia
- French Southern Territories
- Gabon
- Gambia
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Grenada
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Holy See
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan

- Kazakhstan
- Kenya
- Kiribati
- Korea, Democratic People's Republic of
- Korea, Republic of
- Kuwait
- Kyrgyzstan
- Lao People's Democratic Republic
- Latvia
- Lebanon
- Lesotho
- Liberia
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Macao
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia, Federated States of
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar
- Namibia

- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- North Macedonia
- Northern Mariana Islands
- Norway
- Oman
- Pakistan
- Palau
- Palestine, State of
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russian Federation
- Rwanda
- Saint Barthélemy
- Saint Helena, Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- Saint Martin (French part)
- Saint Pierre and Miquelon
- Saint Vincent and the Grenadines
- Samoa

- San Marino
- Sao Tome and Principe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten (Dutch part)
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syrian Arab Republic
- Taiwan
- Tajikistan
- Tanzania, United Republic of
- Thailand
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Türkiye
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda

- Ukraine
- United Arab Emirates
- United Kingdom
- United States of America
- United States Minor Outlying Islands
- Uruguay
- Uzbekistan
- Vanuatu
- Venezuela
- Viet Nam
- Virgin Islands (British)
- Virgin Islands (U.S.)
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

* 4. Please indicate your country of residence.

- Afghanistan
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus

- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Bolivia
- Bonaire, Sint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- Brunei Darussalam
- Bulgaria
- Burkina Faso
- Burundi
- Cabo Verde
- Cambodia
- Cameroon
- Canada
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Congo, Democratic Republic of the
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia

- Denmark
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands (Malvinas)
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern Territories
- Gabon
- Gambia
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Grenada
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Holy See

- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Korea, Democratic People's Republic of
- Korea, Republic of
- Kuwait
- Kyrgyzstan
- Lao People's Democratic Republic
- Latvia
- Lebanon
- Lesotho
- Liberia
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Macao
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta

- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia, Federated States of
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- North Macedonia
- Northern Mariana Islands
- Norway
- Oman
- Pakistan
- Palau
- Palestine, State of
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn

- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russian Federation
- Rwanda
- Saint Barthélemy
- Saint Helena, Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- Saint Martin (French part)
- Saint Pierre and Miquelon
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- Sao Tome and Principe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten (Dutch part)
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland

- Syrian Arab Republic
- Taiwan
- Tajikistan
- Tanzania, United Republic of
- Thailand
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Türkiye
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States of America
- United States Minor Outlying Islands
- Uruguay
- Uzbekistan
- Vanuatu
- Venezuela
- Viet Nam
- Virgin Islands (British)
- Virgin Islands (U.S.)
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

* 5. What is your preferred language for everyday use (e.g., at home, with friends, in daily activities)?

- Bulgarian (bg)
- Croatian (hr)

- Czech (cs)
- Danish (da)
- Dutch (nl)
- English (en)
- Estonian (et)
- Finnish (fi)
- French (fr)
- German (de)
- Greek (el)
- Hungarian (hu)
- Irish (ga)
- Italian (it)
- Latvian (lv)
- Lithuanian (lt)
- Maltese (mt)
- Polish (pl)
- Portuguese (pt)
- Romanian (ro)
- Slovak (sk)
- Slovenian (sl)
- Spanish (es)
- Swedish (sv)
- Arabic (ar)
- Chinese – Simplified (zh)
- Hindi (hi)
- Japanese (ja)
- Korean (ko)
- Russian (ru)
- Turkish (tr)

* 6. What is your highest level of education completed?

- Primary
- Secondary
- Tertiary
- Postgraduate
- Other

Section 2: Awareness & Understanding (6x Questions)

7. Have you heard of AI-based technologies called Generative AI, that:

	Yes	No
* Understand language and speech	○	○
* Recognise emotions	○	○
* Can write text or produce speech	○	○
* Can conduct interviews	○	○
* Can answer users' questions	○	○
* Can give career advice	○	○

8. How would you rate your understanding of Generative AI technologies?

Move the slider or accept the initial position.

* 9. Where have you encountered Generative AI technologies? (You may select more than one.)

- ☐ News
- ☐ Social Media
- ☐ Work Education
- ☐ Interactions with Public Authorities (such as public administration or healthcare facilities)
- ☐ Personal Experience
- ☐ Never Encountered

10. Have you encountered any of the following applications of Generative AI?

	Not encountered – would like to	Not encountered – would not like to	Encountered – positive experience	Encountered – negative experience

* a. Speech-enabled smart home assistants (e.g., answering general questions, recording conversations, taking notes, playing music)	○	○	○	○
* b. AI-enabled customer service chatbots (answering product or service-specific questions)	○	○	○	○
* c. Virtual assistants for study or career guidance	○	○	○	○
* d. Virtual assistants in medical helplines (collecting information before connecting to a human agent)	○	○	○	○

11. Which of the following risks associated with Generative AI are you aware of? (You may select more than one option, or none.)

- ☐ Hallucinations
- ☐ Bias
- ☐ Poorer performance in some languages than in others
- ☐ Copyright infringement
- ☐ Personal data leaks

* 12. Do you think public information about Generative AI technologies is sufficient?

- ○ Yes
- ○ No
- ○ Not sure

Section 3: Perceptions & Acceptance (10x Questions)

* 13. What is your preferred way of interacting with an AI system?

- ○ Text chat (typing and reading responses)
- ○ Voice conversation (speaking and listening)
- ○ Visual interface (e.g., selecting options)
- ○ Mixed mode (combination of all of the above)

14.To what extent do the following factors make you concerned or hesitant about using voice conversation with AI systems? (Please rate each factor on a scale from "Not a concern at all" to "Major concern.")

	Not a concern at all	Slight concern	Moderate concern	Significant concern	Major concern
* Misunderstanding due to accent or dialect	○	○	○	○	○
* Speech recognition errors (e.g., misheard or incomplete responses; background noise affecting accuracy)	○	○	○	○	○
* Privacy (voice data being recorded or analyzed)	○	○	○	○	○
* Discomfort speaking aloud in public /shared spaces or cultural/social discomfort with AI voice interaction	○	○	○	○	○
* Unauthorized voice cloning / deepfakes (record, clone, or impersonate voice)	○	○	○	○	○

15. If you have not used your preferred language when interacting with Generative AI applications to date, what were the main reasons? (You may select more than one.)

- ☐ The technology is not available in my language
- ☐ The technology is available in my language, but it does not perform well
- ☐ The service (e.g., customer support, public administration bot) was preset to another language
- ☐ I chose to use another language instead of my mother tongue for another reason
- ☐ Not applicable – I have not used Generative AI applications, or I used them in my preferred language

16. If you have not used your preferred language when interacting with Generative AI applications to date, which of the following high-resource languages did you use instead? (You may select more than one.)

- ☐ English
- ☐ German

- [ ] French
- [ ] Spanish
- [ ] Portugues
- [ ] Russian
- [ ] Chinese (Mandarin)
- [ ] Japanese
- [ ] Korean
- [ ] Arabic (Modern Standard)
- [ ] Other

* 17. Do you believe these technologies can improve inclusion and accessibility?

- ( ) Yes
- ( ) No
- ( ) Maybe

18. How would you rate your trust in these technologies being used ethically?

Move the slider or accept the initial position.

* 19. Do you feel these technologies respect human dignity and privacy?

- ( ) Yes
- ( ) No
- ( ) Not sure

* 20. If you were offered career or educational advice by an AI system, how comfortable would you feel if it considered your background (e.g., gender, nationality, disability) to provide more personalised advice?

- ( ) Very uncomfortable
- ( ) Uncomfortable
- ( ) Neutral
- ( ) Comfortable
- ( ) Very comfortable

* 21. If an AI assistant used information from your previous interactions with it to give more relevant answers, would that be acceptable to you?

- ○ Yes
- ○ No
- ○ Not sure

* 22. How comfortable would you feel interacting with an AI system during your call to a medical helpline, knowing that a human nurse will still speak with you afterwards?

- ○ Very uncomfortable
- ○ Uncomfortable
- ○ Neutral
- ○ Comfortable
- ○ Very comfortable

Section 4: Societal Needs & Ethical Concerns (7x Questions)

* 23. What is your opinion on the adequacy of current regulations governing the use of Generative AI?

- ○ Regulations should be significantly stricter
- ○ Regulations should be somewhat stricter
- ○ Current regulations are adequate
- ○ Regulations should be somewhat more relaxed
- ○ Regulations should be significantly more relaxed

* 24. Do you think wide implementation of these technologies will affect marginalized communities differently than the general population?

- ○ Yes - negatively
- ○ Yes - positively
- ○ No
- ○ Not sure

25. Rate the importance of each aspect when deploying such technologies (1–5 scale):

	1 (not important at all)	2	3	4	5 (very important)

* Transparency					
* Data Privacy					
* Accessibility					
* Bias Reduction					
* Accuracy (error reduction)					

* 26. Would it concern you if an AI assistant tried to detect your emotional state to adjust how it responds?

- Yes, very concerning
- Somewhat concerning
- Not concerning
- I would welcome it

* 27. In which settings would you feel most comfortable using an AI assistant? (Select all that apply)

- Customer service
- Government services
- Health information (non-critical)
- Financial services
- None of the above

* 28. In your opinion, should AI systems used in healthcare adapt their communication style to appear more empathetic or neutral?

- Empathetic
- Neutral
- Not sure

* 29. Should AI systems be allowed to prioritize calls based on urgency when speaking to patients or caregivers?

- Yes
- No
- Not sure

Section 5: Final Thoughts/Reflections (2x Questions)

* 30. Would you recommend others to take this survey?

- Yes
- No
- Not sure

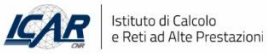
31. Do you have any additional comments or suggestions?

To help guide your answer, you may consider:

- *What potential benefits do you anticipate from the technologies discussed?*
- *What concerns or risks, if any, do you foresee?*
- *In your view, what makes advice from a virtual assistant "socially appropriate"?*
- *What would make AI-assisted interactions in a healthcare helpline feel safe and trustworthy to you?*

Thank you!

eloquence



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