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International Journal of Qualitative Methods
Volume 25: 1–10
© The Author(s) 2026
DOI: 10.1177/16094069261457831
journals.sagepub.com/home/ijq
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Following Facial Recognition Technologies Across Social Worlds: A Situational Analysis Study Protocol

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Abstract

Facial recognition technologies (FRTs) are increasingly the subject of public debate, yet qualitative research that follows contemporary controversies around them remains fragmented and often limited to single sites or perspectives. This article presents the study protocol for fAIces (*Facial Recognition Technologies. Etho-Assemblages and Alternative Futures*), an Advanced Grant funded by the European Research Council using a multi-sited, multi-vocal qualitative design anchored in situational analysis. The study traces how FRTs are enacted, justified, contested, and reimagined across social worlds and settings by actors with divergent forms of expertise and vulnerability, including scientists, entrepreneurs, activists, Black communities, and artists. fAIces introduces and refines etho-assemblages as a conceptual lens for understanding the ethics of FRTs as situated, contested, and negotiated in practice, supporting the development of a sensitising and comprehensive qualitative study protocol that creatively intertwines procedural ethics and ethics-in-practice. Using situational analysis—through coding, mapping, and cross-site comparison—the study combines interviews, focus groups, ethnographic observations, digital ethnography, and document analysis to explore positionality and interpretive differences. The fAIces project protocol contributes both practical tools for conducting multi-sited, multi-vocal qualitative studies, such as sampling strategies, mapping tools, and recruitment and consent procedures, and conceptual resources for engaging with the ethical complexity of emerging and contested technologies.

Keywords

facial recognition technologies, multi-sited qualitative research, situational analysis, digital ethnography, etho-assemblages, research protocol

Received: 16 April 2026; Revised: 10 May 2026; Accepted: 20 May 2026

Background

Facial recognition technologies (FRTs) have become embedded in everyday life and critical infrastructures, from border control and policing to healthcare, education, retail, and artistic practice. Historically, FRTs have shifted from Cold War military projects and forensic applications to commercial platforms such as Facebook's DeepFace and large-scale surveillance systems (Dauvergne, 2022a, 2022b; Ellerbrok, 2011; Eneman et al., 2022; Machado & Silva, 2025). This trajectory underscores how FRTs are continually reconfigured by changing political economies, security agendas, and cultural narratives about risk, recognition, and visibility. This also suggests that FRTs should be examined across multiple social

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worlds, not just as technical artefacts or discrete "tools", but as elements in broader assemblages (Celis Bueno, 2020; Eneman et al., 2022; Introna & Wood, 2004; McLeod, 2014), which shape and are shaped by racialised histories of surveillance (Benjamin, 2019; Browne, 2015; Noble, 2018). From a science and technology studies (STS) perspective, such systems can be approached as sociotechnical assemblages: heterogeneous configurations of infrastructures, institutional arrangements, situated practices, and governing imaginaries that are continuously made and remade through use, maintenance, contestation, and regulation.

Qualitative research on FRTs is growing but remains fragmented and often limited to single sites or perspectives (Fussey & Murray, 2025). Four broad strands can be identified: theoretical and critical analyses of biometrics and algorithmic power (Bucher, 2022; Celis Bueno, 2020; Introna & Wood, 2004); localised empirical case studies of the implementation of FRTs (Andrejevic & Selwyn, 2020; Fussey et al., 2021; Urquhart & Miranda, 2022); studies of public attitudes (Bragias et al., 2021; Kostka, 2023; Ritchie et al., 2021); and policy- and law-oriented work that documents regulatory developments and ethical concerns (Ada Lovelace Institute, 2019; Galligan et al., 2020; Solarova et al., 2022). While valuable, these strands often remain siloed, either abstracting from everyday practices or focusing on single settings such as policing, activism, or commercial deployment. These studies tend to privilege particular institutional perspectives, such as law enforcement, policymakers, or technology providers, while being comparatively inattentive to multiple groups implicated in the technology. Furthermore, existing studies rarely connect across different actors or jurisdictions. As a result, it is difficult to trace how FRTs are enacted, contested, and reimagined by different actors, or to understand how ethical and political concerns travel and are transformed, across sociocultural and geographic contexts.

FRTs are highly contested at a global level, but the terms and intensity of debate vary across regions and political contexts (Dauvergne, 2022a). In some settings, FRTs have been promoted as tools for border control, counter-terrorism, and "smart city" initiatives, supported by public–private investment and framed as inevitable and efficient components of digital transformation. In others, critics highlight the risks of privacy erosion, algorithmic bias, and the expansion of opaque forms of surveillance (e.g., Introna & Wood, 2004; Schopmans & Ebetürk, 2023). These risks are not merely hypothetical: commercial systems have repeatedly been shown to misclassify racialised faces and perform unevenly across demographic groups, with concrete consequences for employment, welfare, and criminal justice decisions. Partnerships between technology companies and police forces have provoked widespread debate, and several corporations and public authorities have announced pauses, moratoria, or bans on FRTs until stronger regulatory frameworks are established. These regional differences illustrate how the politics of FRTs are shaped by distinct legal frameworks, histories of policing, racial formations, and traditions of civil liberties and protest.

From an STS-informed perspective, controversies around FRTs can be read as moments when underlying socio-technical orders become visible and contestable. In Europe, for example, debates over FRTs intersect with broader struggles over data protection, automated decision-making, and the role of the state and private actors in security provision. In Brazil and other Latin American contexts, the deployment of FRTs is entangled with histories of racialised policing and urban control, prompting activism that foregrounds Black lives and anti-racist critique. In North American cities, FRT bans and strict municipal regulations have been driven by coalitions of digital rights groups, community organisations, and some local officials, while national-level regulation remains uneven. Elsewhere, including parts of Asia, FRTs are integrated into more expansive and normalised surveillance infrastructures (Machado & Silva, 2025).

Across these sites, FRTs disproportionately target racialised communities, protesters, and other marginalised groups, while offering benefits such as convenience or security primarily to more privileged populations. Contestations over FRTs therefore crystallise broader questions about whose bodies and faces are rendered legible, under what conditions, and with what consequences. They also expose how power, race, class, and geography shape the distribution of both risk and visibility. These contrasts underscore why a multi-sited and multi-vocal study is needed: to show how ethical and political stakes are framed differently across contexts, while remaining connected through shared technologies, transnational markets, and circulating imaginaries of security and innovation.

The fAIces project, a large-scale, competitively funded research programme (ERC Advanced Grant n.° 101140664), addresses these critical conceptual and methodological gaps: the absence of qualitative studies that follow contemporary controversies around FRTs across multiple social worlds, countries, and implicated actors. More specifically, fAIces maps how FRTs are problematised and mobilised across multiple communities of practice, including scientific research and laboratories, start-up and innovation ecosystems, activist and civil-society networks, and artistic and curatorial fields, and engages Black communities as the primary affected public, given well-established concerns about disproportionate exposure to FRT-enabled surveillance. The project runs from March 2025 to February 2030.

The introduction and refinement of the concept of etho-assemblages is proposed to connect a multi-sited and multi-vocal qualitative design with substantive debates about the ethics of FRTs. By attending to how questions of responsibility, accountability, and justice are situated, contested, and negotiated in practice and in particular situations, etho-assemblages support the development of a sensitising and comprehensive qualitative study protocol that creatively intertwines procedural

ethics and ethics-in-practice (Cilia Vincenti et al., 2025; Walsh et al., 2024). Methodologically, the fAIces project aims to elaborate and operationalise situational analysis as a framework for integrating multiple data collection techniques—interviews, focus groups, ethnography (including digital ethnography), and document analysis—to explore positionality and interpretive differences across diverse settings within a single study.

The publication of this protocol seeks to enhance transparency and accountability in the fAIces project and generate methodological resources, such as sampling strategies, mapping tools, and recruitment and consent procedures that other researchers can adapt when designing multi-sited and multi-vocal studies on emerging and contested technologies.

Etho-Assemblages as a Sensitising Concept

The fAIces project is guided by the notion of etho-assemblages, used as a sensitising concept rather than a fixed theory (Blumer, 1954; Bowen, 2006). The prefix etho- signals a concern with ethos, conduct, and capacities: how people are invited or compelled to act, feel, and present themselves in relation to FRTs, and how these expectations are stabilised or contested across settings.

First, etho- refers to ethos, understood as shared dispositions and ways of living rather than only explicit moral rules (Foucault, 1985; Rose, 2007). In fields where FRTs are developed and deployed, different ethoses are at stake: clinical ethoses of care and triage, security ethoses of vigilance and pre-emption, entrepreneurial ethoses of innovation and disruption, and activist ethoses of resistance and solidarity. These ethoses shape how risks and benefits are perceived, how responsibilities are allocated, and which futures are imagined as desirable or inevitable.

Second, etho- resonates with an ethological interest in what bodies can do in relation with other bodies and artefacts (Deleuze & Guattari, 1987). FRTs reconfigure what faces can do: unlock devices, trigger alerts, index pathology, signal risk, grant or deny access, and become raw material for training datasets (Gates, 2011; Kaur et al., 2020). These capacities are unevenly distributed and often racialised, as some faces are rendered hyper-visible and suspect, while others are afforded seamless passage (Crawford, 2021; Nieves Delgado, 2023). Etho-assemblages foreground these differentiated capacities as part of the ethical stakes of FRTs.

Third, etho-assemblages draw on discussions of ethopolitics, which highlight contemporary forms of governance that act on conduct, character, and capacities rather than solely on legal obedience (Rose, 1999, 2007). In the context of FRTs, people are addressed as subjects who should become transparently legible, optimally visible, and constantly available for surveillance, while also taking responsibility for managing their own exposure and risk. At the same time, counter-ethos and counter-practices challenging these expectations are developed by some implicated actors, particularly activists, artists, and communities disproportionately targeted by surveillance.

We use etho-assemblages of FRTs to name the heterogeneous configurations through which these dimensions cohere: algorithms and datasets, legal and policy frameworks, scientific literature, business models, clinical or policing protocols, activist campaigns, artistic interventions, and everyday practices of self-presentation (Ong & Collier, 2005). These elements are assembled and re-assembled as FRTs travel across laboratories, start-ups, publications, state agencies, communities, and art spaces. The concept emphasises how ethics is done and negotiated in practice—in mundane routines, documentation and infrastructural decisions—as much as in formal principles.

Methodologically, etho-assemblages serve as a heuristic for design and analysis, supporting the development of a sensitising and comprehensive qualitative study protocol that creatively intertwines procedural ethics and ethics-in-practice. At the design level, etho-assemblages help to identify relevant social worlds, countries and implicated actors, justifying a multi-sited and multi-vocal strategy that connects scientists, entrepreneurs, activists, artists, and Black communities. At the analytic level, etho-assemblages guide the use of situational and relational maps by directing attention to how norms, responsibilities, vulnerabilities, and controversies are configured in particular situations and how they travel across sites. Rather than responding to a checklist of "ethical issues", the lens of etho-assemblages links the study protocol's substantive focus on ethics and power to concrete decisions about sampling, data collection and generation, and cross-site comparison.

Explanation and Justification of Method

Rather than treating FRTs as a singular, stable object, the fAIces protocol is built around the idea that technologies come into being through heterogeneous practices, institutions, and imaginaries. This orientation calls for methods that can trace connections across settings and attend to the plurality of positions involved in debates about FRTs. A multi-sited, multi-vocal qualitative design guided by situational analysis offers a flexible yet robust methodological framework for tracing FRTs across multiple social worlds, countries and implicated actors with divergent forms of expertise and vulnerability, while remaining attentive to how power relations, racialisation, and histories of surveillance shape who is rendered visible and on what terms.

The fAIces design is explicitly multi-sited, following FRTs across the arenas in which they are developed, tested, governed, contested, and reimagined. Fieldwork moves between laboratories and start-up ecosystems, advocacy and civil-society networks, artistic and cultural spaces, and community settings especially affected by surveillance. This orientation enables analysis of how controversies around FRTs travel and are reworked across settings and how they are shaped by institutional practices, histories of surveillance, and intersecting dynamics of power that configure visibility, risk, and vulnerability for different social groups.

The design is also multi-vocal in that it brings into conversation perspectives that are often examined separately. The study engages with scientists and start-up professionals working on FRTs; activists and civil-society organisations contesting their deployment; artists experimenting with or critiquing facial technologies; and members of Black communities, selected as the primary affected public due to well-established concerns about disproportionate exposure to FRT-enabled surveillance. Treating these as jointly implicated actors allows the project to examine how different forms of expertise, lived experience, and vulnerability intersect in the making and unmaking of FRTs.

Situational analysis, as an extension of grounded theory, provides tools for mapping the social, material, discursive, and affective elements of a situation and for analysing how they are patterned and contested. The approach is especially suited to socio-technical controversies, where it is necessary to move beyond individual accounts to understand wider configurations of actors, infrastructures, and discourses. By foregrounding situations rather than isolated "cases", situational analysis supports an analytical move from local narratives to broader socio-technical assemblages. The fAIces project's unit of analysis is therefore not individual participants, but the situations and assemblages in which FRTs are enacted and contested, in accordance with its interest in understanding how ethics, responsibility, accountability, and justice are negotiated in practice and in particular situations across institutional and geopolitical boundaries.

Situational maps help to make visible the heterogeneous elements that constitute particular FRT situations, while the lens of etho-assemblages specifies which relations are foregrounded; those through which conduct, responsibility and vulnerability are configured in practice. Bringing together situational and relational mapping becomes possible through the integration of data generated by a combination of semi-structured interviews, focus groups, ethnographic observations, digital ethnography, and document analysis. fAIces treats each data source as offering a different perspective on the situations in which FRTs are embedded.

During the first year of the project, literature review and document analysis were used to map existing controversies around FRTs, including policy debates and proposals, corporate white papers, legal cases, activist campaigns and manifestos, and artistic interventions and catalogues. The situational and relational maps helped identify key sites, actors, and events where FRTs are actively developed, debated, or resisted, providing a foundation for sampling strategies and the selection of fieldwork sites. In addition, trial coding allowed the team to experiment with visual mapping and to reflect on how multiple data can be integrated analytically.

Interview and focus group guides were designed to elicit participants' experiences with FRTs, their ethical and political concerns, and their visions of alternative futures. Ethnographic observations and digital ethnography will trace how FRTs are presented, implemented, debated, promoted, resisted, and contested at events and on online platforms. Draft versions of the interview and focus group guides, observation templates, and data extraction spreadsheets are included in the study ethics protocol to ensure transparency in protocol development. The fAIces ethics protocol is deposited in a stable open repository (Zenodo) with a citable DOI (https://doi.org/10.5281/zenodo.19337610) and maintained under version control. This protocol cites the initial instrument set (v1.0); any subsequent refinements will be released as updated Zenodo versions.

Sampling and Recruitment

Sampling in fAIces will follow the principle of maximum diversity. The aim is to capture a wide range of experiences, perspectives, and practices related to FRTs across countries and implicated actors. Sampling strategies will be tailored to each subproject while remaining guided by a shared commitment to heterogeneity, reflexivity, and attention to power dynamics.

Scientists and start-up professionals will be recruited among those involved in the development, deployment, or critique of FRTs. Potential participants will be identified via professional networks, project websites, academic and industry conferences, and snowball sampling. Maximum diversity will be sought with respect to disciplinary background, institutional setting (e.g., universities, large corporations, small start-ups), roles in relation to FRTs, and geographical location. We anticipate conducting approximately 60-80 interviews with scientists and 20-30 with start-up professionals, while remaining open to adjusting these numbers as the study progresses.

Activists and members of civil society organisations will be sampled from groups engaged in campaigns, legal challenges, public education, or artistic interventions related to FRTs. Recruitment will proceed via civil society networks, existing collaborations, public campaigns, and direct contact with organisations focused on digital rights, racial justice, and police accountability. Variation will be sought in forms of activism (e.g., legal advocacy, community organising, artistic activism)

and in political–institutional environments. We anticipate conducting around 20-30 interviews with activists and NGO representatives, complemented by ethnographic observations of public events where appropriate.

Artists and artistic collectives who use, critique, or reimagine FRTs will be identified through curatorial networks, exhibitions, festivals, and online platforms. Maximum diversity will be pursued in artistic mediums (e.g., visual arts, performance, installation, digital art), geographical locations, and positionality in relation to surveillance debates. We anticipate conducting approximately 20-30 interviews with artists and curators, along with observations of selected exhibitions, performances, or workshops.

Focus groups will be conducted with members of Black communities across seven countries: Brazil, Canada, France, Germany, Spain, the United Kingdom, and the United States. These sites were selected through purposive, theory-informed case selection to capture variation in the sociotechnical and institutional conditions under which facial recognition and related biometric AI are debated, governed, and experienced, while remaining feasible for sustained, community-engaged fieldwork. Selection criteria included socio-historical and political diversity (e.g., different trajectories of race-making and public responses to surveillance), variation in governance arrangements and arenas of controversy across regulatory and policy environments, and the presence of digital-rights organisations and community infrastructures capable of acting as trusted intermediaries. Recruitment will be conducted via trusted community organisations and networks to ensure voluntary participation and to involve local partners in shaping group composition and facilitation. We will ensure diversity within and across sites (e.g., age, gender, migration histories, and everyday experiences with policing and surveillance). We plan to conduct three focus groups per country (6–8 participants each), adapting procedures as needed to local preferences, accessibility requirements, and participants' comfort. In line with ERC ethics requirements, we will obtain local ethics review in each participating country and apply harmonised safeguards for recruitment, consent, confidentiality, and data protection across sites.

Across all subprojects, recruitment will be iterative and sensitive to the political and ethical risks participants may encounter. Potential participants exposed to heightened risks (e.g., activists facing repression, racialised communities disproportionately targeted by policing, or workers bound by restrictive confidentiality agreements) will be approached via intermediaries where appropriate and provided space to discuss the potential consequences of participation. Recruitment will continue within each group until no substantively new themes emerge in consecutive interviews or focus groups. Situational analysis supports this approach by treating saturation not as an absolute endpoint, but as a pragmatic judgement regarding the sufficiency of empirical material to support robust mapping and comparison across sites.

Data Handling

The Data Management Plan (DMP) for the fAIces project is is deposited in a stable open repository (Zenodo) with a citable DOI (10.5281/zenodo.18927598) that represents all versions, and will always resolve to the latest one. The DMP outlines the procedures for managing research data generated throughout the project, including data collection, documentation, storage, protection, sharing, and long-term preservation. This public version of the DMP supports transparency and open science practices while ensuring appropriate safeguards for sensitive and personal data. The document will be updated during the lifetime of the project as data management procedures evolve. Data in fAIces will be generated in multiple formats, including audio recordings and transcripts of interviews and focus groups, ethnographic fieldnotes, screenshots and notes from digital ethnography. All audio files will be transcribed verbatim, with identifying information either removed or pseudonymised during transcription. Visual and digital materials will be stored in secure, access-controlled folders, with cross-references to the corresponding interview, focus group, or fieldnote files.

Data handling procedures have been designed to ensure both security and analytic coherence. Transcripts, fieldnotes, and other documents will be stored on encrypted servers maintained by the host institution, with consent forms and contact details stored separately. A shared coding and memoing environment (e.g., qualitative analysis software combined with a secure shared drive) will facilitate team analysis while maintaining an audit trail of analytic decisions. Version control procedures will be applied to situational maps, codebooks, and analytic memos, allowing the team to track how interpretations evolve over time.

Some data will be procured using automated or semi-automated methods, including screen scraping, web crawling, and API-based retrieval. Screen scraping involves programmatically extracting specific information directly from the visual or underlying HTML structure of web pages. Web crawling refers to the systematic, automated navigation of websites to discover and collect data across multiple linked pages. API-based retrieval uses officially provided application programming interfaces (APIs) to request and receive structured data directly from a service in a controlled and standardised manner. Taken together, these approaches constitute Text and Data Mining (TDM), as they involve the automated analysis and extraction of information from large volumes of digital content.

TDM requires additional consideration, as several misconceptions surround these technologies and relevant legislation varies significantly across jurisdictions. As noted, accessing data via APIs entails using official interfaces curated by the data provider, whereas screen scraping and web crawling involve automating a browser or issuing low-level requests to collect data directly from websites. In lay terms, an API request can be compared to obtaining an official, well-structured extract of a database, whereas screen scraping or web crawling is more akin to visiting a website, copying its contents into a spreadsheet, and repeating this process for every page—only performed automatically.

API usage is typically straightforward, with most of the difficulty lying in obtaining access keys in the first place. Criteria for data access vary from clear and well-documented to muddy and obfuscated depending on the degree of control exercised over the data source. However, screen scraping and web crawling constitute a more direct form of data retrieval, and are where most of the controversy lies; the EU has specific provisions regulating these technologies, which the project will strictly adhere to.

In accordance with Articles 3 and 4 of Directive (EU) 2019/790 on copyright and related rights in the Digital Single Market, the project is authorised to conduct text and data mining on lawfully accessible content for the purposes of scientific research and general analysis. Article 7 further stipulates that any contractual provisions, including standard website Terms of Service, attempting to restrict these statutory exceptions are unenforceable. Consequently, the use of screen scraping and web crawling for TDM purposes is lawful where the underlying content is publicly accessible and used strictly within the scope of the Directive, namely for non-commercial academic research and without redistribution of the source material. At the same time, Article 4(3) of the Directive establishes a clear limitation on this permission: TDM is permitted only when rights holders have not expressly reserved their rights by appropriate machine-readable or technical means. Accordingly, technical measures—such as robots.txt files, authentication barriers, paywalls, access-restricted APIs, or other automated access controls—will be treated as explicit opt-outs and strictly respected. The project will not attempt to bypass or circumvent these measures, ensuring that all automated data collection remains legally compliant and ethically responsible.

Data Analysis

Reflexive thematic analysis (Braun & Clarke, 2021) will follow an iterative, multi-stage process informed by situational analysis. The first stage involves inductive and comparative coding of interviews, focus groups, ethnographic fieldnotes, digital traces, and documents. Coding will be conducted in cycles by the research team, with emerging categories refined and compared across sites and implicated actors. This phase generates an initial set of themes, tensions, contrasts, and convergences that inform subsequent data collection and mapping.

In the second stage, situational and relational maps are developed to visualise the entanglements of actors, artefacts, discourses, infrastructures, and affective dynamics that constitute the multiple social worlds of FRTs. Mapping will offer a common framework for integrating diverse materials and for rendering visible connections that might otherwise remain fragmented across sites or subprojects. Maps are revised iteratively as new data are incorporated, and serve both as analytic tools and as devices for communicating findings within the team and, where appropriate, with participants and partners.

A third stage focuses on cross-site and cross-group comparison. Here, data from different participant groups and national contexts will be juxtaposed to examine how FRTs are enacted, justified, and contested in divergent ways. Rather than treating each site as a self-contained case, the analysis foregrounds relational dynamics in particular situations—how debates in one setting resonate with, contradict, or reshape those in another. Comparative matrices track key dimensions of similarity and difference across sites and actors, providing a shared scaffold for data generation and systematic yet flexible comparison while allowing for local adaptation to specific sites and participants.

Throughout, analytic work is accompanied by reflexive memo-writing and regular team discussions. These practices are designed to surface researchers' positionalities and interpretive differences, and to document how disagreements are addressed. Rather than aiming for a single consensus interpretation, the analysis traces how multiple readings of the material are negotiated, treating such negotiations as part of the rigour of qualitative inquiry. Analysis thus moves back and forth between empirical material, relational maps, comparative matrices, and reflexive memos, creating a layered account of how FRTs are enacted and contested across sites and implicated actors.

Ethics

A sensitising and comprehensive ethics protocol was developed during the first year of the project. It covers informed consent procedures, data protection, the handling of visual and digital materials, and strategies for working with participants who may face heightened risks if their identities or views are exposed due to their racialised position, legal status, occupation, or activism, particularly those from Black communities and other racialised groups, activists, and workers in security-related industries. The ethics protocol was therefore designed to minimise risks while respecting participants' autonomy and

recognising their expertise. It integrates the established constraints of procedural ethics concerning sensitive data and vulnerability with ethics-in-practice in qualitative and participatory research (Cilia Vincenti et al., 2025; Walsh et al., 2024).

A citable version of the study ethics protocol, approved by the CIES-Iscte Ethics Committee (reference P_2026_1), is deposited in a stable open repository (Zenodo) with versioning and an associated DOI (https://doi.org/10.5281/zenodo.19337610). This article cites the initial ethics documentation (v1.0); if procedures are refined during the project (e.g., in response to emergent risks or fieldwork contingencies), updated versions will be released as new Zenodo entries with a documented change log.

Given the sensitivity of FRTs and the histories of racialised surveillance they intersect with, additional formal ethical approval will be obtained from relevant bodies in the seven selected countries. This will occur prior to the commencement of data collection on the experiences of Black communities. In keeping with the etho-assemblages perspective, the research team will document and reflect on data governance processes as part of the empirical and analytic work—for example by examining how ethics forms, consent templates and institutional guidance encode particular assumptions about participants, technologies and legitimate uses of data (Banks & Brydon-Miller, 2018).

Informed consent will be tailored to the circumstances of each subproject and setting. Participants will receive clear information about the study's aims, the types of data to be generated, their intended uses, and the limits of confidentiality. Participants will be reminded of their right to withdraw at any time without negative consequences or the need to provide a reason. For interviews and focus groups, participants may choose whether to be audio-recorded and, where relevant, whether visual material (for example, photographs or screenshots) can be collected or used in publications. Particular care will be taken when working with participants who have precarious legal status, are subject to intensive policing, or engage in politically sensitive forms of activism.

Confidentiality will be ensured through pseudonymisation and careful management of potentially identifying details in transcripts, fieldnotes, and publications. In some cases, especially when working with public figures or high-profile activists, complete anonymity may not be possible or even desired. In such situations, decisions about participant representation will be negotiated with them, and composite vignettes may be used where appropriate. Data protection measures will comply with relevant legal frameworks, including the EU General Data Protection Regulation, and will be adapted to the legal requirements of partner countries as necessary.

Ethical tensions extend beyond issues of consent and confidentiality. Research on FRTs involves engaging both with communities disproportionately targeted by surveillance and with actors who design or deploy technologies that may exacerbate existing inequalities. The ethics protocol therefore incorporates ongoing reflection on representation, voice, and benefit sharing. Where feasible, this includes creating opportunities for participants and community partners to comment on emerging analyses, organising feedback sessions or workshops, and ensuring that research outputs are accessible and useful beyond academic audiences.

Rigour

Qualitative rigour is approached as a situated practice of accountability, drawing on established concepts such as transparency, epistemological clarity, credibility, dependability, and confirmability. From the outset, the fAIces protocol embeds strategies for rigour into the design and conduct of the study. These strategies attend both to how data will be generated, handled and analysed, and to how the research team will document and reflect on its own positionalities and decisions.

First, transparency will be fostered through careful documentation of research processes. Sampling rationales, recruitment pathways, fieldwork decisions, and analytic moves will be documented in fieldnotes, research logs, and analytic memos. Situational and relational maps, codebooks, and comparative matrices will be archived in ways that allow the team to trace how interpretations evolve over time. This audit trail is not intended to ensure replicability in a narrow sense, but to render visible the interpretive work through which findings are produced.

Second, credibility will be strengthened through triangulation across methods, materials, and perspectives. Combining interviews, focus groups, ethnographic observations, digital ethnography, and document analysis enables the study to examine how FRTs are enacted and contested across multiple arenas. Bringing together accounts from scientists, entrepreneurs, activists, artists, and members of Black communities enables the analysis to attend to convergences and tensions across social worlds, rather than relying on a single vantage point. Iterative sampling and analysis will ensure that emerging themes are checked against new materials and across sites.

Third, rigour will be further strengthened through reflexive and collaborative analytic practices. Research team members will hold regular debriefings to discuss their interpretations, field experiences, and positionalities in relation to participants and to FRTs. Reflexive memos will document how these positionalities influence what is noticed, asked, and recorded.

Disagreements in coding or mapping will be viewed not as problems to be resolved, but as opportunities to deepen the analysis by examining the assumptions and standpoints behind divergent readings of the data.

Finally, attention to rigour extends to the communication of findings. fAIces will provide thick descriptions of key situations, careful contextualisation of quotations and visual materials, and an explicit discussion of the limits of transferability to other settings. By making both the empirical grounding and the interpretive labour of the study visible, the study protocol aims to help readers and participants assess the plausibility and usefulness of its conclusions, while contributing to broader methodological debates about how to conduct rigorous multi-sited and multi-vocal research on emerging and contested technologies.

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Ethical Considerations

The study ethics protocol was approved by the CIES-Iscte Ethics Committee (P_2026_1) on March 26, 2026.

Consent to Participate

Informed consent will be obtained from all participants involved in the study.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Council Executive Agency. Neither the European Union nor the granting authority can be held responsible for them. This work is supported by the ERC Advanced Grant fAIces (Grant agreement ID: 101140664).

Declaration of conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

The authors confirm that the data supporting the study are available within the article.

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