The New Right to Be Let Alone: Ethical and Legal Challenges of Emotion Recognition

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@ AABHL 2025

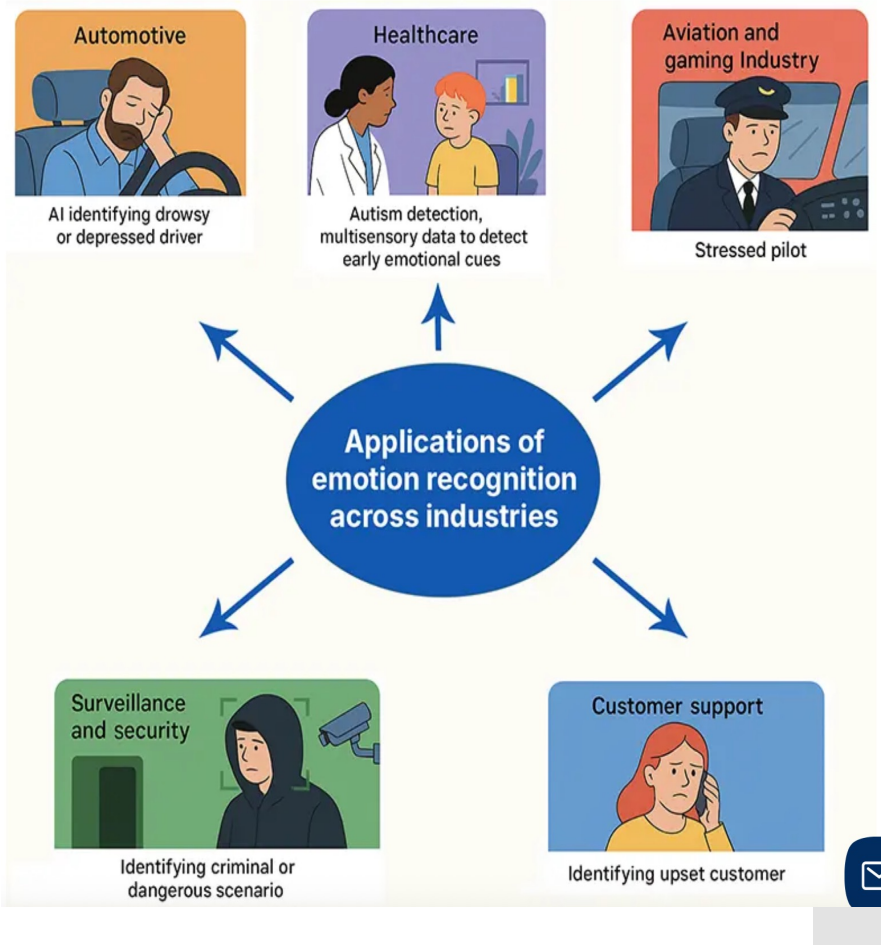
Emotion Recognition: Development and Benefits

Technology Features:

- Multimodal fusion
- Real-time emotion recognition
- Neurotechnology

Applications:

- Enable robots to simulate empathy and respond adaptively.
- Integrate generative AI with emotion detection to deliver more nuanced, personalized interactions.
- Increasingly deployed in healthcare, education, employment, public safety, and service-oriented sectors.



Source

Emotion Recognition Today: Challenges

- Scientific validity
- Accuracy
- Bias and discrimination
- Privacy
- Autonomy

Source: Mattioli & Cabitza, 2024; ARTICLE 19

Regulation: EU AI Act

- "emotion recognition system" : an AI system for the purpose of **identifying or inferring emotions or intentions of natural persons** on the basis of their biometric data. (Art. 3(39))
- Prohibited AI: "AI systems to infer emotions of a natural person in the areas of **workplace and education institutions**, except where the use of the AI system is intended to be put in place or into the market for medical or safety reasons" (Art. 5.1.(f))
- High-risk AI: emotion recognition based on biometrics (Art. 6(2) & Annex III.1.(c))
- Transparency obligation (Art. 50(3))

➢ Regulation varies by sector, intended purpose, and type of input data

➢ Loopholes remain, *e.g.*, systems analyzing apparent expressions may fall outside the scope.

Regulation: Facial Recognition

- Many facial-recognition technologies are deployed together with ERTs.
- Regulatory Approaches (U.S. law examples)
  - Regulating the collection and use of biometric data, *e.g., Illinois BIPA*
  - Setting specific requirements for facial-recognition systems, *e.g., transparency and public consultation*
  - Banning or restricting facial recognition in certain sectors, *e.g., law enforcement, schools*
  - Applying general regulatory regimes, *e.g., Fair Trade Commission Act*
- Are ERTs more intrusive because they probe a person's inner states, or less intrusive because they do not necessarily link to personal identity?

Regulation: Data Protection

- Special data?
  - Most laws designate certain categories of data as requiring heightened protection.
  - **EU law**: The input data used to infer emotions may itself fall within GDPR Art. 9 **special data** (*e.g.*, biometric data, health data).
  - **U.S. law**: The input data may be **personally identifiable health data.**
- Some ERTs (processing gestures, text etc.) do not necessarily process special data.
- Emotion data is not always personally identifiable.

San Francisco Emotion Map
by Christina Nold

Regulation: Fundamental Rights

- Freedom of Thought
  - Emotions = thoughts or beliefs?
  - Traditionally, the inner realm of thoughts and beliefs enjoys absolute protection. But a revised account considers: effects, vulnerability, context (Ligthart & van de Pol, 2024).
- Neurorights
  - Cognitive liberty: the right not to be interfered with by neuro-technologies, and the right to access such technologies.
  - Right to mental privacy: the protection of neural and cognitive data.

➢ Should protection be absolute (based on informed consent, or even cannot be consented), or context-dependent and qualified?

Regulation: Privacy Approaches Revisited

- "The right to be let alone" in a wiretapping case by the US Supreme Court in 1928. New technologies reshape our interpersonal boundaries.

- Humans intuitively read others' emotions, but ERTs scale this ability in unprecedented ways:
  - People may be subject to continuous and amplified algorithmic scrutiny without awareness or real consent.
  - Individuals are classified using uniform algorithmic criteria, rather than diverse human judgments.
  - Raises concerns about pervasive surveillance and datafication of inner states.

Regulation: Privacy Approaches Revisited

- The space for bad thoughts or negative attitudes
  - "Intellectual privacy" even without expression

- The decency of concealing and revealing
  - The free flow of information within appropriate norms, ie. "contextual integrity"

- The judgment by human beings, not automated judgment by algorithms
  - Human judgments

Image: University of Tsukuba

Source

Different Cultural Contexts

- Acceptance Across Cultures
  - US: Strong support for banning emotion AI; healthcare more acceptable with higher accuracy/less bias. (Ingber & Andalibi, 2025)
  - German employees: Privacy concerns, acceptance based on cost–benefit. (Behn et al., 2024)
  - Cross-country survey (1,000+ students): Lower concern in less-developed countries; higher trust among Asian students. (Mantello et al., 2021)

- ERTs raise ethical concerns, with both skepticism and acceptance.
- The cultural influence on attitudes toward emotion AI remains underexplored.

Conclusion

- Effects brought by ERTs:
  - Blur interpersonal boundaries, intruding on personal solitude and encouraging self-censorship.
  - Displace human effort to understand others, weakening empathy.
  - Enable large-scale capture of emotion data, expanding surveillance and likely exacerbating algorithmic bias.

- Regulating ERTs:
  - Strict informed-consent requirements; non-consensual uses should be limited to narrowly defined purposes.
  - Consider recognizing "emotion data" as a new category of special data.

Thank you.

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