

Repair and Addressability in Human–Computer Interaction: When AI-Mediated Decisions Become Procedurally Unreachable

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Overview

This paper examines how AI-mediated consequential decisions can become formally challengeable but practically unreachable. In cases such as verification denial, account sanction, automated refusal, or support escalation failure, the problem is not only whether a decision is correct. The deeper HCI problem is whether affected users can meaningfully reach, question, and repair the decision.

The paper introduces loss of addressability as an interaction-level framework for analyzing this condition. It argues that blocked escalation should be treated not merely as a governance problem downstream of system design, but as a design failure in the interaction architecture itself.

Core contribution

- Distinguishes formal challengeability from practical reachability.
- Introduces loss of addressability as a framework for procedurally unreachable decisions.
- Describes a mechanism of signal flattening, response collapse, and repair foreclosure.
- Reframes appeal, escalation, and correction as core HCI design requirements.
- Connects AI-mediated decision systems to procedural repair, user burden, and institutional responsibility.

Figure 1. Loss of Addressability as an Interaction-Level Mechanism of Procedural Unreachability

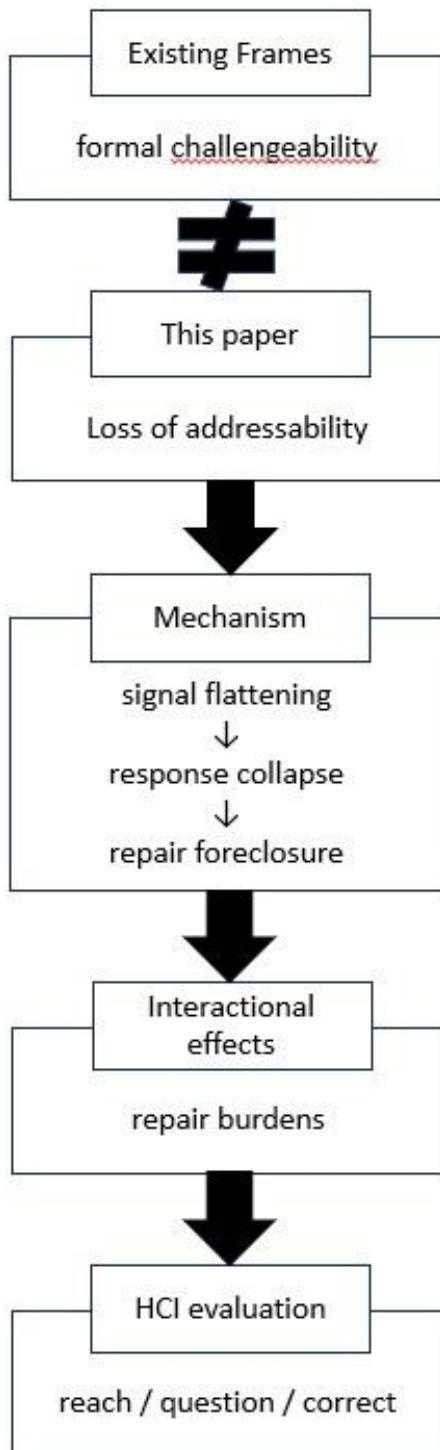


Figure 1. The paper distinguishes formal challengeability from practical reachability and analyzes their divergence as loss of addressability. Procedural unreachability emerges through signal flattening, response collapse, and repair foreclosure, with implications for HCI evaluation centered on whether users can meaningfully reach, question, and correct system decisions.

Note: This is an accepted late-breaking paper proposal record for HCII 2026 / AI-HCI 2026, not a final published paper. Publication in the Springer LNCS Late Breaking Papers proceedings track is subject to registration and camera-ready submission.