

Information Access under Epistemic Uncertainty: Learning from Journalism

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1. Introduction

In contemporary online information environments, users are often faced with broad *epistemic uncertainty* encountering information that might be incorrect, incomplete, taken out of context, algorithmically curated, AI-generated, or driven by political or commercial motives (Rieger et al., 2026). As a result, they have to judge not only whether claims are true or false, but also what they can justifiably take away from any encountered information. This epistemic labour substantially increases the cognitive demand of accessing and making sense of information.

Widely used information access systems prioritize ease of access and efficiency and offer little support in carrying out the epistemic labour required to assess and interpret the information users encounter (Haider & Sundin, 2019; Shah & Bender, 2024). With limited and easily overlooked cues about credibility, authenticity, provenance, and intent, they can give the false impression that the required epistemic labour has been done on the user's behalf (Łajewska et al., 2024; Smith & Rieh, 2019).

Wondering, whether information access systems could be designed to better support critical engagement and sensemaking, we turn to a profession that uniquely centers epistemic labour, namely, *journalism*, with the following research objective: Identifying journalistic guidelines and practices for handling epistemic uncertainty, and translating them into design recommendations for information access systems that support critical thinking and sensemaking.

We pose the following research questions that we want to address in this project:

- **RQ1:** How do guidelines from journalism associations in Europe suggest managing and communicating epistemic uncertainty?
- **RQ2:** How do journalists manage and communicate epistemic uncertainty in their daily practice?
- **RQ3:** Which information access system design recommendations can be derived from the journalistic guidelines and practices?

2. Research Approach

We plan to address the three research questions in subsequent steps:

1. **Formal Journalistic Guidelines (RQ1).** In the first step, we will explore codes of ethics from journalism associations of all EU countries which are available through the PressCouncils.eu project¹. We will identify themes and principles related to handling

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¹ <https://www.presscouncils.eu/>



- epistemic uncertainty by annotating and comparing sentences in the different press codes that refer to (1) managing information uncertainty in journalistic workflows, and (2) communicating uncertain information to the public. Based on the identified themes and principles, we will prepare the interview guide required for investigating journalistic practices in the next step.
2. **Journalistic Practices (RQ2).** In the second step, we plan to conduct semi-structured interviews with Journalists based in Europe, aiming to understand how they handle epistemic uncertainty and implement the journalistic guidelines identified in the previous step in their daily practice. We will use Grounded Theory informed thematic analysis to derive themes. We plan to continue interviewing until theoretical saturation is reached.
 3. **Design Recommendations (RQ3).** From the themes identified in the journalistic guidelines and the interviews on journalistic practices, we will extract key insights that we can translate into information access system design recommendations.

At SEASON, we will present the state of the project, expecting to have completed the exploration of journalistic guidelines and to be in the phase of conducting interviews with journalists. We will present the themes identified to date and hope to receive feedback from the SEASON community before completing the project and moving on to the follow-up step: investigating how cues about epistemic uncertainty affect sensemaking and critical thinking.

3. References

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