

# The Pleasure(s) of Griefing: Tracing Multimodal Toxicity in League of Legends

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## INTRODUCTION

Online multiplayer games are key sites where players negotiate not only performance and competition, but also complex social relations and ambivalent forms of enjoyment (Petrosino, Loria and Pirker 2021, Gonçalves et al. 2023). In highly competitive titles such as *League of Legends* [Riot, since 2009] (LoL), players derive satisfaction from mastery, coordination and victory, yet this is often entangled with frustration, blame and hostile communication (Paul 2018, Kou 2020). Toxic exchanges, whether verbal or non-verbal, thus shape how pleasure is distributed and contested within game communities. The MuMoDeTox (Multimodal Detection of Toxicity in Video Games) project responds to this situation by developing a multimodal extraction pipeline capable of capturing and contextualizing toxic communication in LoL matches.

Player communication in LoL is fundamentally multimodal: chat, pings, emotes, UI interactions and spatial positioning of champions form a tightly interwoven semiotic system. Many toxic practices emerge not from language alone but from players' creative reappropriation of these multimodal means. A characteristic example involves a player's death triggering a cluster of signals: a rapid question-mark ping spam at the death site, a "skfsdlkfj" message in chat, and positioning champions into the player's lane as an ironic display of blame. Given LoL's rigid role structure and high-stakes decision environment, even minor gameplay deviations can trigger highly condensed multimodal responses, making an integrated analytic approach essential.

By making these interactions analytically visible, the project provides the groundwork for examining how competitive intensity, communication norms and uneven experiences of "fun" intersect in contemporary online play. Additionally, the project methodologically showcases the possibilities of a meaningful intersection between qualitative and quantitative approaches to complex gameplay data.

Project page: <https://github.com/zhaw-iwi/MuMoDeTox>

## BACKGROUND: TOXICITY BEYOND TEXT CHAT

LoL has one of the largest active player populations worldwide and is widely recognized as a paradigmatic case of both Esports professionalism and everyday toxicity (Kwak/Blackburn 2015, Zsila/Demetrovics 2025). While automated moderation systems exist, they have historically focused on chat logs, leaving non-verbal communication channels underexplored despite their substantial role in everyday play. Understanding such practices requires reconstructing what was communicated, where and when it occurred, and how it related to unfolding in-game events.

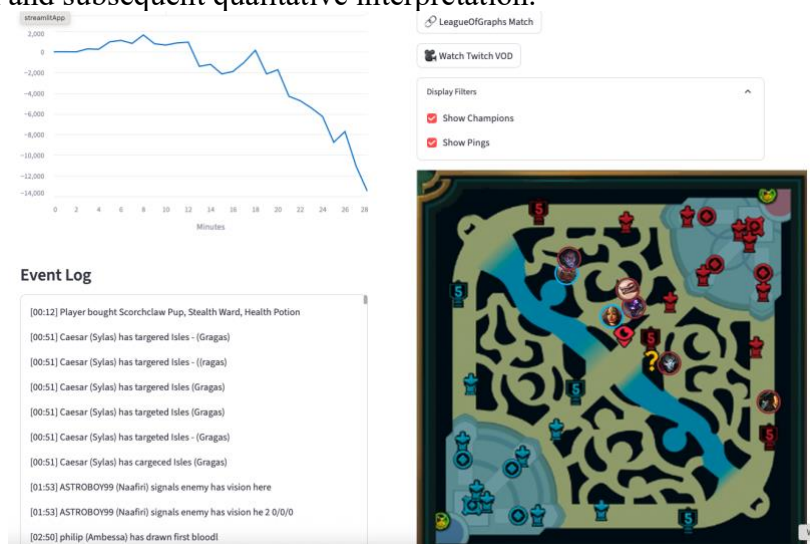
## SYSTEM OVERVIEW: AUTOMATED MULTIMODAL EXTRACTION

The project's prototype system implements automated analysis of LoL gameplay recordings by combining video processing, machine learning and structured game metadata retrieval. Its central innovation is the visual detection of pings and champion positions directly from video frames using the YOLOv8 object detection framework. These detections are complemented by:

- mini map localization and cropping, enabling spatial tracking of champion movement and ping placement;
- OCR-based extraction of chat messages and other on-screen text elements;

- integration of external match metadata, including performance statistics and achievements, champion role, to contextualize extracted signals.

Together, these components form a configuration-driven pipeline that reconstructs for each moment in a match, how visual, textual and spatial signals co-occur. The system produces a structured representation of gameplay that can be queried to locate and analyse candidate toxic episodes, supporting both quantitative pattern detection and subsequent qualitative interpretation.



**Figure 1:** The MuMoDeTox framework (Plesky 2025)

## RESEARCH OPPORTUNITIES ENABLED BY THE PIPELINE

The prototype enables several concrete lines of inquiry into toxic communication in competitive play:

1. **Temporal patterns of hostile signaling**  
The system can identify sequences of pings and chat messages clustered around specific game events, such as deaths or failed objectives, allowing examination of escalation dynamics.
2. **Spatial targeting and blame**  
By mapping pings and champion positions on the mini map, the system facilitates investigation of whether specific players or roles become focal points of hostile signalling.
3. **Cross-modal reinforcement**  
Toxicity often emerges from interplay among modalities—for instance, sarcastic chat remarks coupled with ping spam or emphatic UI usage. The pipeline detects these clusters as unified communicative events.
4. **Shifts over the course of a match**  
Coupling toxic episodes to game progression enables analysis of how pressure and expectations shape communicative behaviour across early, mid and late game phases.
5. **Qualitative close-up analysis contextualizing significant events**  
We conduct a close-up qualitative analysis, using the methods of conversation analysis (Reeves, Greiffenhagen and Laurier 2016). By analyzing these unfolding of communicational “jobs” (Hausendorf, 2013), we consider the sequential unfolding of events leading up to toxicity.
6. **Player-type-specific multimodal toxicity patterns**  
Our initial observations suggest that different player types exhibit distinct patterns of multimodal toxicity, ranging from impulsive ping spam to

more deliberate, performative signaling, suggesting that toxicity reflects both situational pressure and stable communicative habits.

Observations from real gameplay indicate that toxic episodes rarely manifest in a single modality but emerge as clusters: repeated question-mark or “is alive” pings, emphatic UI-element highlighting, line-broken chat messages or combined chat-and-UI argumentation. These patterns underline the need for contextual, temporally anchored and sequential analysis rather than surface-level classification, since the same communicative resources can serve antagonistic, strategic or playful functions depending on timing and situational embedding.

## DISCUSSION AND OUTLOOK

While MuMoDeTox is primarily a methodological and technical contribution, its focus on multimodal toxicity has implications for understanding how enjoyment, frustration and social pressure are entangled in competitive online play. The communicative tools that support coordination at high levels of play can also enable subtle forms of exclusion and antagonism; the line between “motivational pinging” and harassment is negotiated moment by moment. By rendering these practices visible and measurable, the project offers a foundation for understanding how communication norms shape who experiences competitive play as pleasurable and under what conditions that pleasure becomes contested. Furthermore, the project enables an analytical approach that takes into account the temporal sequentiality of unfolding events. Because multimodal signals in LoL can convey support, frustration or irony depending on their sequential context, distinguishing between constructive and corrosive communication requires precisely the kind of temporally synchronized, context-aware analysis enabled by this pipeline. In future stages, the system will facilitate empirical studies of toxic communication across ranks, regions or compositions, as well as collaborations that combine computational techniques with qualitative analysis. More broadly, by treating toxicity as a situated, multimodal practice embedded in game systems, MuMoDeTox contributes both technical tools and conceptual scaffolding for examining the complex intersections of communication, competition and contested enjoyment in online games.

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