

What drives FOI responsiveness under pressure? Evidence from Belgium’s FOI platform

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Abstract: Digital Freedom of Information (FOI) platforms mediate millions of citizen-government interactions annually, yet transparency policymakers face a paradox: the very infrastructure designed to increase openness generates textual data too vast for human review. This methodological gap intensifies as public demands for accountability place administrations under mounting pressure. This paper presents an NLP-based diagnostic framework that transforms unstructured FOI platform data into actionable policy intelligence.

We demonstrate the framework through application to Transparencia.be, Belgium’s national FOI portal. Analyzing 4,265 citizen requests submitted between 2016–2025, we address a question central to transparency policy evaluation: what characteristics of information requests predict whether citizens receive meaningful responses? Belgium’s multi-level governance structure—with overlapping federal, regional, and municipal FOI regimes—makes it an ideal laboratory for examining implementation variation.

Our analytical pipeline integrates NLP techniques with conventional quantitative methods. We apply Latent Dirichlet Allocation (LDA) to classify requests into six policy-relevant categories, from public finance oversight to police accountability. Each topic is assigned an Accountability-Seeking Potential (ASP) score, operationalizing which requests pose greater reputational pressure on administrations. Using the FEEL lexicon, we quantify each request’s emotional valence—do politely-worded requests receive better treatment than confrontational ones? We embed these NLP-derived variables in multinomial logistic regression predicting three outcomes: successful disclosure, refusal, and non-response.

Three patterns emerge with direct implications for transparency under pressure. First, high-accountability requests are significantly less likely to receive disclosure and, in several high-stakes domains, less likely to receive any response—suggesting strategic non-responsiveness to sensitive oversight inquiries. Second, positive communication tone substantially increases engagement, suggesting citizen template optimization as a low-cost intervention. Third, marked variation across administrative families reveals which institution types require targeted capacity-building, while request complexity systematically reduces disclosure likelihood.

We acknowledge limitations: topic interpretation requires human judgment, sentiment lexicons may miss administrative language nuances, and observational data cannot prove causation. These limitations underscore that NLP tools complement rather than replace human analysts—a necessary caution as AI-driven solutions gain traction in transparency policy.

The framework can be applied to other FOI platforms such as Ma Dada (FR) or AskTheEU (EU). By demonstrating how machine learning surfaces systematic patterns while human judgment contextualizes findings, we offer a replicable approach to auditing transparency policy implementation that enhances—not threatens—the role of public administration professionals.