



# USING SSDI CONVERSATIONS IN ONLINE FORUMS TO IMPROVE COMMUNICATION AND OUTREACH

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Approximately two-thirds of Social Security Disability Insurance (SSDI) applications are initially denied but subsequently approved. This high initial rate of denial and subsequent award on appeal suggests the existence of a knowledge gap between applicants and the Social Security Administration (SSA). This study conducts text analysis of online discussions of SSDI applications to identify points of confusion.

## **Text Analysis of Online Discussions to Identify Knowledge Gaps in SSDI Applications**

The study's two primary objectives are to provide insights on effective communication strategies to reduce confusion and improve customer service experiences and welfare. First, the analysis identifies the major areas of confusion about SSA rules and decision criteria using a machine-learning hybrid approach to natural language processing (NLP) and text analytics, and second, to evaluate the impact of how and when SSA customers obtain such information on their interpretation of this information.

We first compare the conversation patterns between the initial application and appeal processes of applicants. We use a text analytics approach called epistemic network analysis (ENA) to model the discussions of individuals participating in online forums related to SSDI, focusing on the difference between conversations of initial applications and appealing one's denial. The results suggest that being denied and going through the appeals process has stronger connections with pain and medical conditions and providing sufficient medical evidence. We next explore the impact of iClaims and field office closures on the conversation patterns among applicants capitalizing on the longitudinal nature of our data (pre-iClaim: 2004—2008, post-iClaim: 2009—2014). Results suggest that conversations shifted from focusing on questions surrounding medical evidence and suggestions (during the pre-iClaim period) to expressions of frustrations, mental health, and pain associated with medical evidence (during the post-iClaim period).

## **Applications with Clear Medical Evidence are More Likely to be Approved**

Analysis shows systematic differences in conversations between filing an initial application and discussing denial appeals. Conversations containing initial application make stronger connections between neurological condition and medical evidence. In contrast, denial appeals make stronger connections among pain, mental health, and medical evidence. The increased connections between initial application and neurological condition suggest it is relatively easier to document the impacts of one's medical condition.



## iClaim Does not Compensate for Field Office Closures

Analysis shows Pre-iClaim and Post-iClaim posts reveal significant differences in discussions about SSDI. The Pre-iClaim posts focus more on the interactional aspects of SSDI, whereas Post-iClaim posts concentrate more on the emotional aspects. The results suggest that applicants face particular challenges when using iClaim that put an emotional strain on them. For example, applicants may expect that using iClaim would eliminate the effort of visiting the field office but end up having to call or visit their field office anyway after encountering difficulties with the online application system and experience feelings of frustration. Future studies could further examine why and how iClaim could be putting pressure on SSDI applicants. For example, different state Disability Determination Services (DDS) have different technology infrastructures to access the Health Information Technology (HIT) for them to access the electronic medical records of the applicants in order to collect medical evidence in using the iClaim system (SSAB Roundtable on Medical Evidence Collection 2021). These technological disconnects (gaps) contribute to the significant delays (having to resort to mail and paper copies) and frustrations.

### Implications

Text analysis of online discussions can identify points of confusion to overcome information asymmetry of the 60 percent rejected applications to reduce the administrative burden of SSA. Existing practice in policy and program evaluations are primarily based on research surveys/interviews using self-reported data and administrative data that may not reveal individual user experience or cover financially vulnerable populations. Collecting and analyzing user-generated content (UGC) from online forums provides insights from the individuals' perspectives regarding user experience and knowledge sharing.

- The current system of collecting medical evidence presents significant barriers for applicants' whose disability conditions are difficult to document.
- The current application and review process is confusing to the applicants, many fail to understand how and why their applications are approved or denied.
- Policymakers and practitioners could consider and evaluate how and what information is exchanged in online forums and social media platforms, given its increasing use by SSA customers.

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