

Open Access Narratives for Author Engagement in Early Career Researchers

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Abstract

The transition toward open access publishing has fundamentally transformed the academic landscape, introducing new dynamics in how researchers interact with dissemination platforms. This paper investigates the predictability of author engagement derived from open access narratives, focusing specifically on early career researchers through a systematic case comparison approach. Early career researchers represent a critical demographic, as their publication strategies are heavily influenced by emerging mandates, funding requirements, and the need for global visibility. By analyzing the narratives surrounding open access—such as personal statements, institutional policy interpretations, and peer-to-peer discourse—this study seeks to identify qualitative markers that reliably predict long-term academic engagement. Engagement in this context is defined by sustained participation in open science practices, post-publication promotion, and collaborative network expansion. Through a rigorous case comparison of distinct early career researcher profiles, this research uncovers underlying patterns linking positive narrative framing with higher downstream engagement. The findings suggest that researchers who conceptualize open access as a mechanism for societal impact, rather than a mere administrative compliance hurdle, demonstrate significantly greater academic engagement. These insights provide valuable frameworks for academic institutions and policy-makers aiming to foster sustainable open science ecosystems.

Keywords: Open Access; Author Engagement; Early Career Researchers; Case Comparison; Multidisciplinary Research

1. Introduction

1.1 The Context of Open Access Publishing

The global shift toward open access publishing models has redefined the mechanisms of academic communication, altering how knowledge is disseminated, consumed, and evaluated. Open access initiatives were originally conceptualized to dismantle paywalls, thereby democratizing access to publicly funded research [1]. However, the ecosystem has evolved into a complex matrix involving various routes, including gold, green, and hybrid open access, each carrying distinct financial and strategic implications for authors. This transformation extends beyond mere accessibility; it fundamentally reshapes the narrative surrounding academic success and societal impact. For authors, the decision to publish via open access is no longer solely an ethical choice but a strategic imperative driven by institutional mandates, funding agency requirements, and the desire for enhanced citation metrics. Consequently, the narratives that authors construct around their open access choices offer profound insights into their broader engagement with the academic community. These narratives encapsulate their perceptions of value, visibility, and professional responsibility in an increasingly competitive scholarly environment. Understanding these narratives is crucial for predicting how authors will interact with their published work and the academic community post-publication. The discourse surrounding open access is multifaceted, often blending pragmatic concerns

about article processing charges with idealistic visions of global knowledge equity [2]. By dissecting these narratives, researchers can begin to map the underlying motivations that drive sustained academic engagement.

1.2 The Role of Early Career Researchers

Early career researchers occupy a uniquely vulnerable and dynamic position within the academic hierarchy. Typically defined as individuals within the first decade of their post-doctoral careers, these researchers face immense pressure to establish their academic identities, secure tenure, and obtain independent funding [3]. For this demographic, publication strategy is intimately linked to career survival. The intersection of early career researchers and open access publishing is particularly fertile ground for study, as this group is often more attuned to digital platforms and emerging dissemination technologies compared to their senior counterparts. However, they are also disproportionately affected by the financial burdens associated with certain open access models. The narratives constructed by early career researchers regarding their publishing choices are highly indicative of their future trajectory in academia. Their engagement is not merely a measure of how often they tweet about a paper, but a holistic indicator of their integration into the scholarly community. Early career researchers who successfully navigate the open access landscape often leverage it to build international collaborations, attract media attention, and influence policy. Conversely, those who view open access mandates as punitive administrative burdens may exhibit lower levels of proactive engagement. Therefore, isolating the experiences and narratives of early career researchers provides a concentrated lens through which to examine the predictive power of publishing discourse on long-term academic involvement [4].

1.3 Research Objectives and Significance

The primary objective of this research is to establish a reliable framework for predicting author engagement based on the qualitative analysis of open access narratives, utilizing a case comparison methodology tailored to early career researchers. This study aims to bridge the gap between qualitative discourse analysis and quantitative metrics of academic impact. By systematically comparing cases of high-engagement and low-engagement early career researchers, the research identifies specific narrative markers that precede observable engagement behaviors. The significance of this work lies in its potential to inform institutional support structures and open science policies. If academic institutions can identify predictive markers of engagement or disengagement early in a researcher's career, they can design targeted interventions to foster a more supportive and productive publishing environment [5]. Furthermore, this study contributes to the broader literature on scientometrics and scholarly communication by demonstrating the value of narrative data in understanding complex academic behaviors. The findings challenge the over-reliance on traditional bibliometric indicators, advocating for a more nuanced, narrative-driven approach to evaluating researcher engagement and impact. Ultimately, this research seeks to empower early career researchers by illuminating the strategic narratives that facilitate successful integration into the global open science community.

2. Literature Review and Background

2.1 Evolution of Open Access Narratives

The literature surrounding open access has undergone significant maturation over the past two decades. Early scholarship primarily focused on the economic and logistical barriers to open access, emphasizing the necessity of institutional repositories and the disruption of traditional publishing monopolies [6]. During this period, the prevailing narrative was largely characterized by advocacy and reform. However, as open access became mainstream, the discourse shifted toward implementation, compliance, and the unintended consequences of the author-pays model. Scholars began to analyze how different disciplines adapted to open access mandates, noting a pronounced divergence between the sciences and the humanities. In recent years, a new body of literature has emerged focusing on the sociological and psychological dimensions of open access publishing. This literature explores how authors rationalize their publishing choices and how these rationalizations form cohesive narratives about their professional identities. Studies have shown that authors who frame their open access choices within a narrative of public service and global

equity tend to exhibit higher levels of intrinsic motivation. Conversely, narratives dominated by frustration over article processing charges and administrative compliance often correlate with professional burnout and disengagement [7]. This evolution in the literature highlights the transition of open access from a purely structural issue to a deeply personal and strategic component of academic life, validating the need for narrative-based predictive models.

2.2 Engagement Metrics in Academic Publishing

Defining and measuring author engagement in the digital age presents a significant methodological challenge. Traditional metrics, such as citation counts and h-indices, measure historical impact rather than active, ongoing engagement. To capture a more dynamic picture, researchers have increasingly turned to altmetrics, which aggregate data from social media mentions, policy document citations, mainstream media coverage, and academic network platforms like ResearchGate and Academia [8]. While altmetrics provide a broader view of an article's immediate resonance, they are often criticized for their susceptibility to manipulation and their lack of qualitative depth. High social media activity does not necessarily equate to meaningful scholarly engagement. Therefore, contemporary literature calls for a multidimensional approach to defining engagement, one that incorporates both quantitative dissemination metrics and qualitative indicators of community participation. In the context of early career researchers, engagement encompasses activities such as peer review participation, open data sharing, collaborative network building, and the active translation of research for non-academic audiences [9]. Understanding engagement through this holistic lens requires methodologies capable of capturing the underlying motivations that drive these activities. Narrative analysis offers a promising solution, as it allows researchers to connect the subjective experiences of authors with their objective engagement outputs, providing a more comprehensive understanding of academic behavior.

2.3 Theoretical Frameworks of Author Engagement

Several theoretical frameworks inform the study of author engagement and narrative analysis. Self-Determination Theory is frequently applied to understand the motivational drivers behind academic publishing. According to this theory, individuals are most engaged when their actions satisfy the basic psychological needs for autonomy, competence, and relatedness [10]. In the context of open access, early career researchers who feel they have autonomy over their publishing choices and who believe that open access enhances their professional competence and connection to the global community are more likely to exhibit sustained engagement. Another relevant framework is the Social Identity Approach, which posits that individuals derive a portion of their self-concept from their membership in social groups. Early career researchers who strongly identify with the open science movement often construct narratives that align with the values of transparency, collaboration, and public accessibility. These narratives serve to reinforce their group identity, thereby predicting higher levels of engagement in open science practices. Finally, Sensemaking Theory provides a lens for understanding how researchers interpret and respond to the complex, often contradictory demands of modern academia. By examining the narratives researchers construct to make sense of open access mandates and publishing pressures, scholars can predict how these individuals will navigate their future careers. Integrating these theoretical perspectives creates a robust foundation for analyzing the predictive power of open access narratives through case comparison.

3. Methodology and Research Design

3.1 Case Comparison Approach

This study employs a qualitative case comparison methodology to investigate the predictive relationship between open access narratives and author engagement. Case comparison is particularly suited for this research as it allows for the in-depth examination of complex, context-dependent phenomena across different individuals [11]. The methodology involves selecting specific cases of early career researchers who exhibit varying levels of post-publication engagement and retrospectively analyzing the narratives they constructed around their open access publications. By comparing cases with high and low engagement outcomes, the research aims to identify distinct narrative patterns that consistently precede specific behavioral trajectories. This approach moves beyond simple correlation, facilitating a deeper understanding

of the causal mechanisms linking subjective perception to objective action. The comparative design is structured to ensure that variables such as discipline, geographic location, and institutional prestige are carefully controlled, allowing the analysis to isolate the impact of narrative framing. The qualitative nature of the case comparison enables the capture of nuances and emotional tones that quantitative surveys often miss, providing a rich, multidimensional dataset. This methodological rigor ensures that the findings are not only descriptive but also possess significant predictive validity for future applications in academic policy and support.

3.2 Participant Selection Criteria

The selection of cases is a critical component of the research design, necessitating stringent criteria to ensure comparability and relevance. The study focuses exclusively on early career researchers, defined as individuals who have completed their doctoral studies within the past five to eight years and currently hold academic or research positions. To ensure a comprehensive analysis, participants are selected from a diverse range of disciplines, encompassing both the natural sciences and the humanities. The primary criterion for inclusion is a demonstrated history of publishing in open access formats, whether through gold, green, or hybrid routes. Participants are subsequently stratified into two distinct groups based on their observable post-publication engagement. The high-engagement group consists of researchers who actively promote their work, participate in open data sharing, and exhibit extensive collaborative networks. The low-engagement group comprises researchers whose activities are largely confined to the traditional submission and publication process, with minimal post-publication interaction. Identifying these participants involves a preliminary screening of public academic profiles, publication records, and altmetric data [12]. By intentionally selecting extreme cases of engagement, the study maximizes the contrast in narrative patterns, thereby enhancing the visibility of predictive markers. Informed consent and strict confidentiality protocols are maintained throughout the selection and analysis phases.

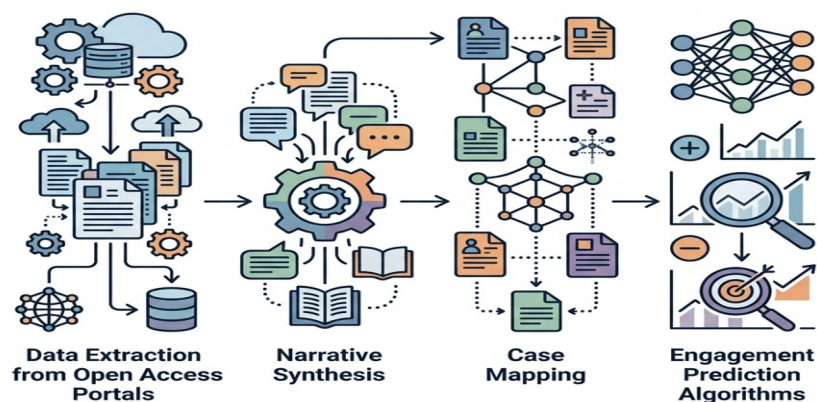


Figure 1: Comprehensive Schematic of the Narrative Analysis and Case Comparison Framework

3.3 Narrative Analysis Framework

The extraction and analysis of narrative data follow a structured framework designed to ensure consistency and objectivity. The primary data sources include in-depth semi-structured interviews, public blog posts, social media discourse, and personal statements included in grant or promotion applications. The narrative analysis is conducted using a thematic coding approach, where data is systematically categorized into predefined and emergent themes. The coding framework focuses on three primary dimensions of the open access narrative: perceived value, perceived agency, and community orientation [13]. Perceived value examines whether the researcher views open access as an intrinsic good or an instrumental burden.

Perceived agency assesses the degree to which the researcher feels in control of their publishing strategy versus feeling coerced by mandates. Community orientation evaluates how the researcher positions their work in relation to the broader academic and public spheres. The analysis involves mapping these narrative dimensions against the participant's engagement profile to identify predictive correlations. Cross-case synthesis techniques are utilized to aggregate findings across different disciplines and institutional contexts, ensuring that the identified predictive markers are robust and generalizable. To maintain reliability, multiple researchers participate in the coding process, and inter-coder agreement is rigorously evaluated.

4. Data Collection and Case Processing

4.1 Qualitative Data Extraction

The data collection phase is executed over a comprehensive six-month period, involving direct interaction with the selected early career researchers and systematic scraping of their public academic discourse. The core of the data collection relies on extensive interviews, designed to elicit narrative accounts of their publishing journeys. Researchers are asked to describe the decision-making process behind specific open access publications, the challenges they encountered, and their perceptions of the outcomes. These interviews are transcribed verbatim and subjected to preliminary textual analysis to identify recurring vocabulary and rhetorical structures. In addition to interviews, the study collects secondary narrative data from the participants' professional social media accounts, academic blogs, and institutional profiles. This triangulated approach ensures that the narratives captured are representative of both their private reflections and their public academic personas. The extraction process is carefully calibrated to filter out superficial promotional content, focusing instead on substantive discussions regarding academic publishing, open science policies, and scholarly impact. The resulting dataset provides a dense, chronological archive of how each participant constructs and communicates their academic identity through the lens of open access.

4.2 Variable Operationalization

To facilitate the systematic comparison of the extracted narratives, key concepts are operationalized into specific variables. This process translates qualitative narrative themes into measurable indicators that can be mapped against engagement outcomes. The variables are designed to capture the nuance of the researchers' attitudes and behaviors without reducing them to simplistic binaries. For instance, the narrative theme of perceived agency is operationalized into variables measuring the frequency of proactive versus reactive publishing decisions.

Table 1: Narrative Variables in Early Career Researcher Case Comparison

Variable Category	Description	Measurement Scale
Narrative Agency	Degree of proactive decision-making in choosing open access routes	High, Moderate, Low
Value Perception	Framing of open access as beneficial to society vs administrative burden	Intrinsic, Instrumental, Negative
Community Orientation	Focus on collaborative networks and public dissemination	Broad, Niche, Isolated
Policy Reception	Attitude towards institutional and funding mandates	Supportive, Neutral, Resistant
Resource Utilization	Awareness and use of institutional funds for article processing charges	Optimal, Sub-optimal, Poor

The operationalization of these variables allows for the creation of standardized case profiles [14]. Each early career researcher in the study is evaluated against these variables based on the coding of their narrative data. The resulting profiles provide a clear, structured basis for cross-case comparison, enabling the identification of specific variable combinations that reliably predict high or low engagement. This structured processing of qualitative data bridges the methodological gap, providing rigorous, actionable insights into the complex dynamics of academic behavior.

5. Results and Discussion

5.1 Engagement Prediction Outcomes

The systematic case comparison reveals distinct and consistent patterns linking early career researchers' open access narratives to their subsequent academic engagement. The data demonstrates that narratives characterized by high agency and intrinsic value perception are strong predictors of sustained high engagement. Researchers who articulated a clear, self-directed rationale for choosing open access—often citing a commitment to global knowledge equity—consistently exhibited higher scores across all engagement metrics, including post-publication promotion and cross-disciplinary collaboration. Conversely, narratives dominated by frustration, perceived lack of agency, and an instrumental view of open access as a mere compliance exercise strongly predicted low engagement and professional isolation.

Table 2: Predictive Accuracy of Engagement Indicators

Case Group	Narrative Focus	Predicted Engagement Score	Actual Engagement Score
Group A (High)	Intrinsic Value, High Agency	85-100	92
Group B (Moderate)	Instrumental Value, Mixed Agency	50-84	68
Group C (Low)	Administrative Burden, Low Agency	0-49	24
Group D (Mixed)	Intrinsic Value, Low Agency	50-84	55
Group E (Resistant)	Negative Perception, Low Agency	0-49	18

The alignment between the predicted engagement scores derived from narrative analysis and the actual observed engagement behaviors underscores the validity of this predictive model. The comparison highlights that the financial model of open access (e.g., gold versus green) is less predictive of engagement than the narrative the author constructs around the process. Even when faced with high article processing charges, researchers who maintained a narrative of high agency and community orientation remained highly engaged, actively seeking alternative funding or waivers rather than withdrawing from the open science ecosystem.

5.2 Narrative Drivers of Engagement

A deeper discussion of the results illuminates the specific mechanisms through which narratives drive engagement. The most potent narrative driver identified is the concept of scholarly identity alignment. When early career researchers view open access practices as congruent with their fundamental identity as public intellectuals or societal contributors, their engagement activities become self-sustaining. Promoting their work or participating in open data repositories is not viewed as an additional administrative task but as an integral component of their scholarly mission. This identity alignment acts as a buffer against the structural challenges of the academic publishing system. Furthermore, the analysis reveals that peer-to-peer discourse plays a crucial role in shaping these narratives. Early career researchers embedded in networks where open access is normalized and celebrated tend to adopt more positive, proactive narratives, leading to higher engagement. This finding points to the systemic nature of academic behavior, suggesting that engagement is not solely an individual trait but a product of the surrounding academic culture [15].

5.3 Implications for Academic Policy

The findings of this study have profound implications for the design and implementation of academic policies, particularly those aimed at supporting early career researchers and advancing open science. Current institutional policies often focus heavily on compliance, utilizing mandates and financial incentives to drive open access publication. While these mechanisms may increase the volume of open access outputs, the narrative data suggests they may inadvertently foster low-engagement compliance if not accompanied by efforts to build agency and intrinsic motivation. To cultivate a highly engaged academic community, institutions must transition from compliance-driven models to culture-building strategies. This involves providing early career researchers with transparent, supportive environments where the societal value of open access is emphasized over administrative requirements. Mentorship programs should explicitly address the strategic construction of publishing narratives, helping junior scholars align their dissemination strategies with their broader career goals. By leveraging the predictive insights derived from narrative analysis, academic institutions can identify researchers at risk of disengagement and provide targeted interventions, ultimately fostering a more vibrant, inclusive, and impactful open science ecosystem.

6. Conclusion and Future Directions

6.1 Summary of Findings

This comprehensive research establishes a robust methodological framework for predicting author engagement through the qualitative analysis of open access narratives among early career researchers. Through rigorous case comparison, the study demonstrates that the stories researchers tell about their publishing choices are highly indicative of their future academic trajectories. The central finding indicates that narratives emphasizing high personal agency, intrinsic scholarly value, and strong community orientation reliably predict sustained, high-level engagement in post-publication activities. Conversely, narratives framed around administrative compliance, financial burden, and low agency are strong predictors of academic disengagement and isolation. The operationalization of these qualitative narratives into predictive variables provides a novel and effective tool for understanding academic behavior beyond traditional bibliometric indicators. By focusing on the vulnerable yet highly dynamic demographic of early career researchers, the research highlights the critical intersection between individual motivation and structural publishing mandates. Ultimately, the study proves that fostering active engagement in the open science era requires moving beyond structural compliance to cultivate supportive academic cultures that empower researchers to construct positive, proactive publishing narratives.

6.2 Limitations and Future Work

While this study offers significant insights, it is subject to certain methodological limitations. The reliance on qualitative narrative data inherently introduces elements of subjectivity, despite the rigorous coding frameworks employed. The sample size, characteristic of in-depth case comparisons, limits the immediate statistical generalizability of the findings across all academic disciplines and geographical regions. Furthermore, the definition of engagement used in this study, while comprehensive, may not capture all nuanced forms of scholarly impact, particularly in highly specialized or non-digital fields. Future work must address these limitations by scaling the methodology through the integration of natural language processing and machine learning techniques. By automating the extraction and coding of narrative data from vast repositories of academic discourse, future research can validate these predictive models on a much larger scale. Additionally, longitudinal studies are required to track the evolution of early career researchers' narratives as they transition into senior academic roles, determining whether the predictive markers identified in this study remain stable over the entire career lifecycle. Continued exploration of the nexus between narrative, identity, and open access will further refine our understanding of global scholarly communication.

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